Appendix J: Traffic Data

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Type of peak hour being reported: Intersection Peak

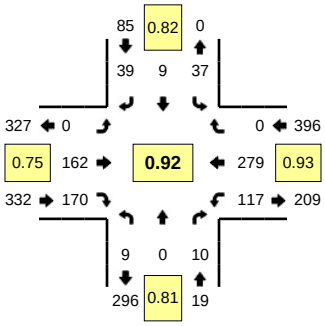
Method for determining peak hour: Total Entering Volume

LOCATION: SR 99 SB Ramps -- Belmont Ave

QC JOB #: 10609101

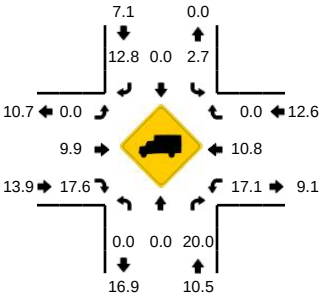
CITY/STATE: Fresno, CA

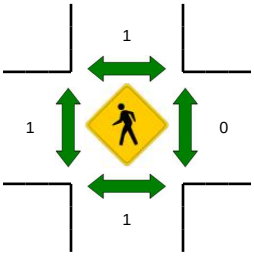
DATE: 4/27/2011

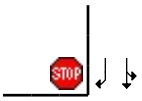


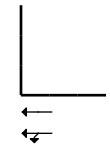
Peak-Hour: 7:40 AM -- 8:40 AM

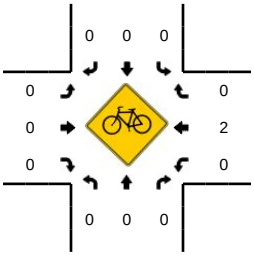
Peak 15-Min: 7:50 AM -- 8:05 AM

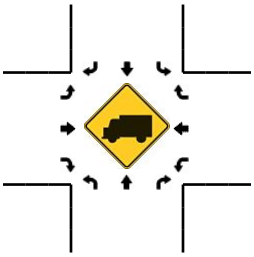


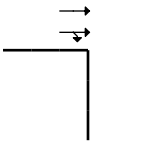


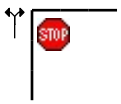


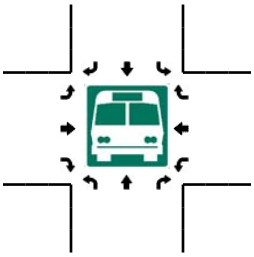












5-Min Count Period Beginning At	SR 99 SB Ramps (Northbound)				SR 99 SB Ramps (Southbound)				Belmont Ave (Eastbound)				Belmont Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	0	1	0	4	2	1	0	0	7	6	0	10	10	0	0	42	
7:05 AM	0	0	1	0	2	0	1	0	0	11	4	0	8	15	0	0	42	
7:10 AM	0	0	0	0	4	1	2	0	0	7	9	0	14	13	0	0	50	
7:15 AM	1	0	0	0	3	1	3	0	0	9	13	0	14	8	0	0	52	
7:20 AM	2	0	1	0	3	0	3	0	0	4	11	0	19	12	0	0	55	
7:25 AM	1	0	2	0	2	0	4	0	0	10	11	0	10	11	0	0	51	
7:30 AM	1	0	2	0	1	1	0	0	0	14	13	0	8	21	0	0	61	
7:35 AM	3	0	0	0	4	1	3	0	0	18	15	0	6	15	0	0	65	
7:40 AM	0	0	3	0	6	0	2	0	0	18	21	0	9	20	0	0	79	
7:45 AM	0	0	0	0	4	0	1	0	0	20	19	0	4	15	0	0	63	
7:50 AM	2	0	1	0	1	1	2	0	0	16	18	0	11	31	0	0	83	
7:55 AM	2	0	2	0	5	1	2	0	0	15	11	0	8	24	0	0	70	713
8:00 AM	0	0	0	0	2	1	7	0	0	18	12	0	13	20	0	0	73	744
8:05 AM	2	0	2	0	4	0	5	0	0	7	11	0	7	28	0	0	66	768
8:10 AM	0	0	0	0	1	2	3	0	0	11	10	0	11	19	0	0	57	775
8:15 AM	3	0	0	0	1	2	2	0	0	12	11	0	9	26	0	0	66	789
8:20 AM	0	0	2	0	3	0	4	0	0	7	9	0	11	28	0	0	64	798
8:25 AM	0	0	0	0	1	1	2	0	0	7	16	0	11	20	0	0	58	805
8:30 AM	0	0	0	0	5	1	3	0	0	18	17	0	9	20	0	0	73	817
8:35 AM	0	0	0	0	4	0	6	0	0	13	15	0	14	28	0	0	80	832
8:40 AM	1	0	0	0	6	1	5	0	0	13	20	0	8	14	0	0	68	821
8:45 AM	0	0	1	0	1	1	5	0	0	12	14	0	12	18	0	0	64	822
8:50 AM	0	0	2	0	6	1	3	0	0	15	14	0	6	27	0	0	74	813
8:55 AM	1	0	1	0	9	1	3	0	0	8	11	0	7	15	0	0	56	799

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	0	12	0	32	12	44	0	0	196	164	0	128	300	0	0	904
Heavy Trucks	0	0	0		0	0	12		0	8	20		24	20	0		84
Pedestrians		4				0				4				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	2	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

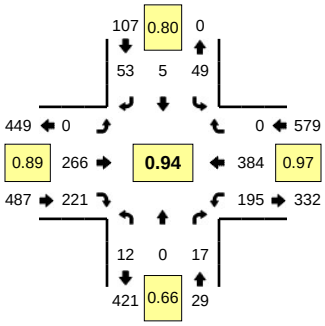
Method for determining peak hour: Total Entering Volume

LOCATION: SR 99 SB Ramps -- Belmont Ave

QC JOB #: 10609102

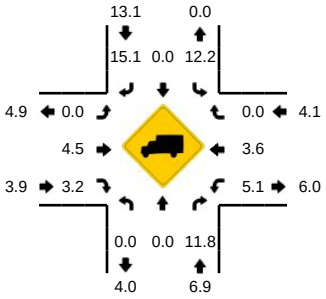
CITY/STATE: Fresno, CA

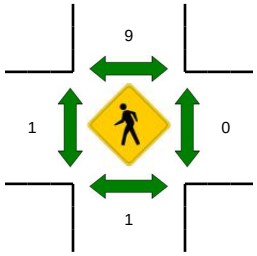
DATE: 4/27/2011

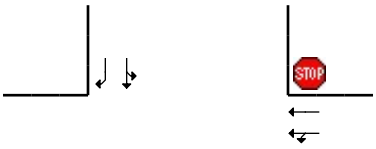


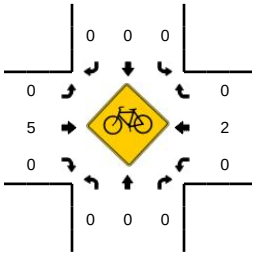
Peak-Hour: 4:15 PM -- 5:15 PM

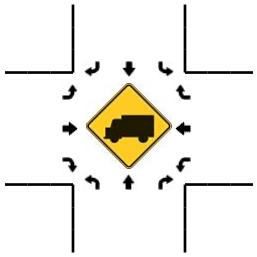
Peak 15-Min: 4:15 PM -- 4:30 PM



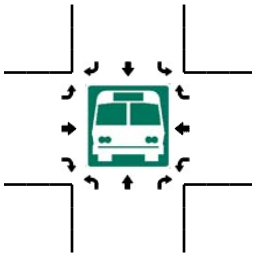












5-Min Count Period Beginning At	SR 99 SB Ramps (Northbound)				SR 99 SB Ramps (Southbound)				Belmont Ave (Eastbound)				Belmont Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	4	1	4	0	0	16	22	0	13	32	0	0	92	
4:05 PM	3	0	4	0	6	1	3	0	0	25	27	0	15	32	0	0	116	
4:10 PM	1	0	1	0	4	0	2	0	0	21	17	0	11	23	0	0	80	
4:15 PM	2	0	2	0	5	2	7	0	0	25	20	0	12	33	0	0	108	
4:20 PM	0	0	2	0	4	0	3	0	0	20	26	0	16	36	0	0	107	
4:25 PM	0	0	0	0	5	0	7	0	0	23	19	0	16	34	0	0	104	
4:30 PM	1	0	1	0	5	0	2	0	0	13	14	0	17	30	0	0	83	
4:35 PM	1	0	3	0	3	0	2	0	0	22	23	0	15	33	0	0	102	
4:40 PM	2	0	4	0	5	1	3	0	0	22	22	0	16	36	0	0	111	
4:45 PM	1	0	0	0	4	1	4	0	0	18	14	0	6	31	0	0	79	
4:50 PM	0	0	2	0	2	0	3	0	0	19	14	0	25	32	0	0	97	
4:55 PM	0	0	0	0	8	0	7	0	0	22	14	0	17	26	0	0	94	1173
5:00 PM	1	0	3	0	4	0	4	0	0	21	17	0	19	26	0	0	95	1176
5:05 PM	4	0	0	0	2	0	8	0	0	37	11	0	19	33	0	0	114	1174
5:10 PM	0	0	0	0	2	1	3	0	0	24	27	0	17	34	0	0	108	1202
5:15 PM	1	0	3	0	3	0	5	0	0	15	24	0	12	22	0	0	85	1179
5:20 PM	2	0	1	0	4	2	8	0	0	22	10	0	14	30	0	1	94	1166
5:25 PM	3	0	4	0	5	1	6	0	0	14	20	0	10	20	0	0	83	1145
5:30 PM	1	0	1	0	5	1	1	0	0	21	14	0	15	35	0	0	94	1156
5:35 PM	0	0	1	0	1	0	5	0	0	20	18	0	17	26	0	0	88	1142
5:40 PM	1	0	1	0	3	0	5	0	0	15	17	0	10	29	0	0	81	1112
5:45 PM	0	0	0	0	4	1	2	0	0	26	15	0	8	30	0	0	86	1119
5:50 PM	3	0	0	0	2	2	2	0	0	12	10	0	12	21	0	0	64	1086
5:55 PM	1	0	3	0	6	2	6	0	0	13	17	0	5	30	0	0	83	1075

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	0	16	0	56	8	68	0	0	272	260	0	176	412	0	0	1276
Heavy Trucks	0	0	0		8	0	8		0	8	0		8	20	0		52
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

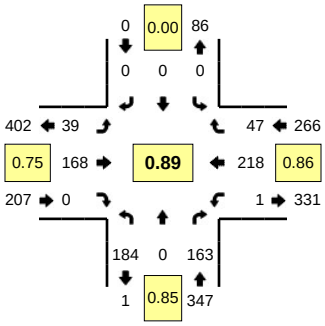
Method for determining peak hour: Total Entering Volume

LOCATION: SR 99 NB Ramps -- Belmont Ave

QC JOB #: 10609103

CITY/STATE: Fresno, CA

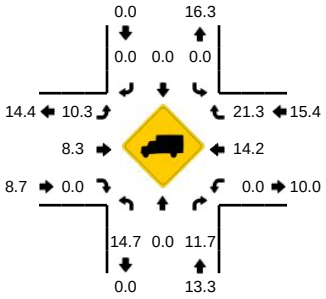
DATE: 4/27/2011

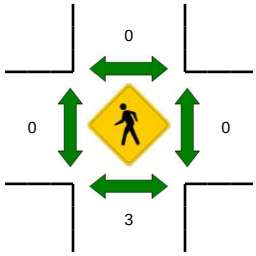


Peak-Hour: 7:40 AM -- 8:40 AM

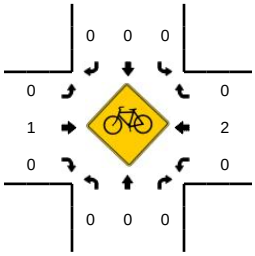
Peak 15-Min: 7:50 AM -- 8:05 AM

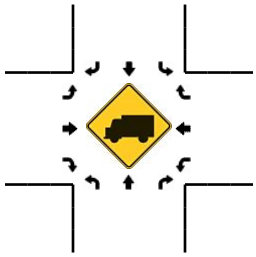


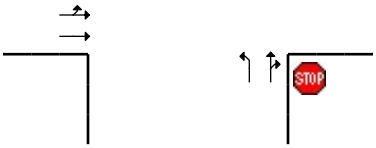


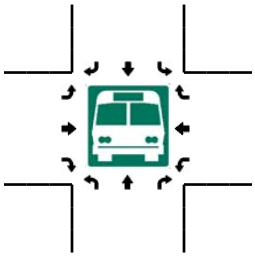












5-Min Count Period Beginning At	SR 99 NB Ramps (Northbound)				SR 99 NB Ramps (Southbound)				Belmont Ave (Eastbound)				Belmont Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	10	0	10	0	0	0	0	0	1	11	0	0	0	9	4	0	45	
7:05 AM	9	0	6	0	0	0	0	0	4	12	0	0	0	13	2	0	46	
7:10 AM	9	0	5	0	0	0	0	0	1	10	0	0	0	19	0	0	44	
7:15 AM	6	0	11	0	0	0	0	0	3	11	0	0	0	19	3	0	53	
7:20 AM	6	0	10	0	0	0	0	0	2	14	0	0	0	21	1	0	54	
7:25 AM	8	0	10	0	0	0	0	0	2	13	0	0	0	18	2	0	53	
7:30 AM	10	0	8	0	0	0	0	0	4	14	0	0	0	19	4	0	59	
7:35 AM	3	0	10	0	0	0	0	0	3	21	0	0	0	12	2	0	51	
7:40 AM	16	0	15	0	0	0	0	0	3	24	0	0	0	17	4	0	79	
7:45 AM	11	0	10	0	0	0	0	0	3	20	0	0	1	11	6	0	62	
7:50 AM	20	0	16	0	0	0	0	0	3	14	0	0	0	19	8	0	80	
7:55 AM	18	0	21	0	0	0	0	0	4	20	0	0	0	17	1	0	81	707
8:00 AM	15	0	13	0	0	0	0	0	0	17	0	0	0	18	7	0	70	732
8:05 AM	17	0	12	0	0	0	0	0	1	11	0	0	0	19	2	0	62	748
8:10 AM	15	0	14	0	0	0	0	0	4	10	0	0	0	18	1	0	62	766
8:15 AM	12	0	17	0	0	0	0	0	6	8	0	0	0	16	2	0	61	774
8:20 AM	17	0	11	0	0	0	0	0	3	8	0	0	0	26	3	0	68	788
8:25 AM	8	0	11	0	0	0	0	0	4	4	0	0	0	19	3	0	49	784
8:30 AM	12	0	12	0	0	0	0	0	6	18	0	0	0	18	8	0	74	799
8:35 AM	23	0	11	0	0	0	0	0	2	14	0	0	0	20	2	0	72	820
8:40 AM	10	0	12	0	0	0	0	0	3	16	0	0	0	15	3	0	59	800
8:45 AM	16	0	17	0	0	0	0	0	5	10	0	0	0	16	2	0	66	804
8:50 AM	12	0	15	0	0	0	0	0	7	16	0	0	0	18	3	0	71	795
8:55 AM	11	0	18	0	0	0	0	0	2	16	0	0	0	10	2	0	59	773

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	212	0	200	0	0	0	0	0	28	204	0	0	0	216	64	0	924
Heavy Trucks	12	0	16		0	0	0		0	16	0		0	24	0		68
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	2	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

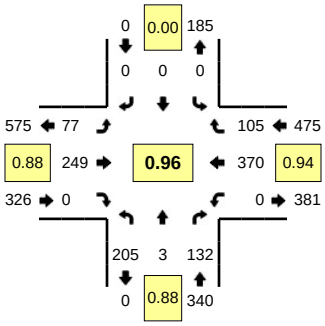
Method for determining peak hour: Total Entering Volume

LOCATION: SR 99 NB Ramps -- Belmont Ave

QC JOB #: 10609104

CITY/STATE: Fresno, CA

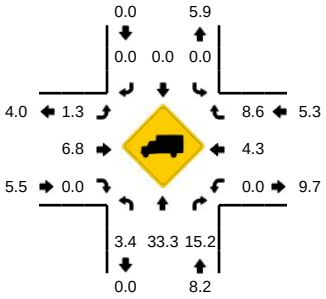
DATE: 4/27/2011

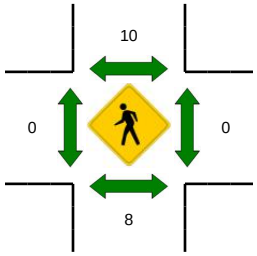


Peak-Hour: 4:15 PM -- 5:15 PM

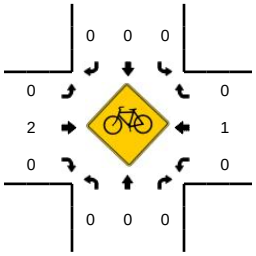
Peak 15-Min: 4:30 PM -- 4:45 PM

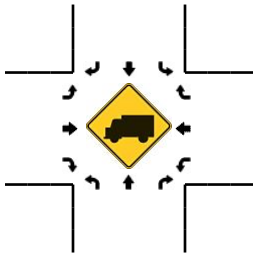


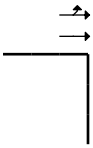


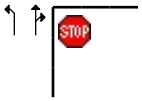


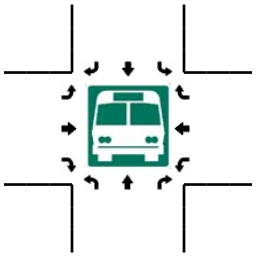












5-Min Count Period Beginning At	SR 99 NB Ramps (Northbound)				SR 99 NB Ramps (Southbound)				Belmont Ave (Eastbound)				Belmont Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	16	2	11	0	0	0	0	0	5	16	0	0	0	32	7	0	89	
4:05 PM	16	0	16	0	0	0	0	0	4	27	0	0	0	27	9	0	99	
4:10 PM	10	1	19	0	0	0	0	0	7	22	0	0	0	24	8	0	91	
4:15 PM	17	0	18	0	0	0	0	0	5	25	0	0	0	28	10	0	103	
4:20 PM	18	0	14	0	0	0	0	0	8	17	0	0	0	34	6	0	97	
4:25 PM	20	0	6	0	0	0	0	0	3	26	0	0	0	27	9	0	91	
4:30 PM	22	1	20	0	0	0	0	0	5	15	0	0	0	26	10	0	99	
4:35 PM	22	0	10	0	0	0	0	0	7	24	0	0	0	31	11	0	105	
4:40 PM	16	0	10	0	0	0	0	0	7	19	0	0	0	30	10	0	92	
4:45 PM	16	0	13	0	0	0	0	0	4	19	0	0	0	27	10	0	89	
4:50 PM	10	0	6	0	0	0	0	0	2	22	0	0	0	43	7	0	90	
4:55 PM	17	0	9	0	0	0	0	0	4	23	0	0	0	27	2	0	82	1127
5:00 PM	17	1	9	0	0	0	0	0	9	20	0	0	0	31	10	0	97	1135
5:05 PM	14	1	7	0	0	0	0	0	15	23	0	0	0	31	9	0	100	1136
5:10 PM	16	0	10	0	0	0	0	0	8	16	0	0	0	35	11	0	96	1141
5:15 PM	16	0	12	0	0	0	0	0	5	17	0	0	0	16	10	0	76	1114
5:20 PM	15	0	12	0	0	0	0	0	7	20	0	0	0	28	8	0	90	1107
5:25 PM	14	0	9	0	0	0	0	0	4	17	0	0	0	15	9	0	68	1084
5:30 PM	17	0	12	0	0	0	0	0	4	24	0	0	0	37	7	0	101	1086
5:35 PM	13	1	9	0	0	0	0	0	5	19	0	0	0	24	9	0	80	1061
5:40 PM	11	0	9	0	0	0	0	0	5	13	0	0	0	29	4	0	71	1040
5:45 PM	13	0	11	0	0	0	0	0	9	19	0	0	0	27	2	0	81	1032
5:50 PM	13	0	11	0	0	0	0	0	2	13	0	0	0	18	4	0	61	1003
5:55 PM	16	0	11	0	0	0	0	0	4	17	0	0	0	17	6	0	71	992

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	240	4	160	0	0	0	0	0	76	232	0	0	0	348	124	0	1184
Heavy Trucks	12	4	20		0	0	0		0	12	0		0	20	12		80
Pedestrians		4				8				0				0			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

16285 SW 85th Avenue, Ste. 302
Tigard, OR 97224
Phone: 503-620-4242
Fax: 503 620-4545
www.qualitycounts.net

Site Code: 10609105
Location: Motel Dr/Belmont Cir & Belmont Ave
Date: 4/27/2011

Peak Hour: 7:25am - 8:25am
Peak 15-minutes: 7:40am - 7:55am
Peak Hour Factor: 0.80

	Motel Dr Southbound						Belmont Ave Westbound						Wesley Ave Northbound						Arthur Northbound						Belmont Ave Eastbound					
Time	U-Turns	Right to Belmont WB	Thru to Arthur	Thru to Wesley	Left to Thorne	Left to Belmont EB	U-Turns	Right to Motel Dr	Thru to Belmont WB	Left to Arthur	Left to Wesley	Left to Thorne	U-Turns	Right to Thorne	Right to Belmont EB	Thru to Motel Dr	Left to Belmont WB	Left to Arthur	U-Turns	Right to Wesley	Right to Thorne	Right to Belmont EB	Thru to Motel Dr	Left to Belmont WB	U-Turns	Right to Arthur	Right to Wesley	Thru to Thorne	Thru to Belmont EB	Left to Motel Dr
7:00	0	3	0	2	0	4	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	9	0
:05	0	5	0	2	0	5	0	2	6	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	1	0	1	1	14	1
:10	0	5	0	1	1	8	0	3	11	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	10	1
:15	1	2	0	3	0	9	0	1	5	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	1	0	4	19	2
:20	0	5	0	1	0	8	0	0	8	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	1	14	5
:25	0	3	1	0	0	5	0	1	11	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	2	15	3
:30	0	3	0	1	1	12	0	3	7	0	1	0	0	1	0	2	2	0	0	0	0	0	0	0	0	0	3	0	17	3
:35	0	3	0	1	1	11	0	6	12	0	0	0	0	0	1	0	2	0	0	0	0	0	2	0	0	0	2	1	18	5
:40	0	11	2	1	0	14	0	5	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	24	7
:45	0	10	0	3	1	18	0	1	14	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	1	1	1	19	2
:50	0	7	1	5	0	16	1	9	11	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	1	1	1	17	3
:55	0	7	0	1	0	16	0	6	11	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	3	1	19	4
8:00	1	8	1	4	0	5	0	1	11	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	4	1	1	16	3
:05	0	5	1	1	0	5	0	5	7	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	1	0	2	3	13	1
:10	0	2	0	2	0	7	0	2	14	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	1	13	2
:15	0	5	0	4	0	7	0	1	21	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	3	1	2	10	1
:20	0	6	0	2	0	6	1	4	20	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	1	3	1	9	1
:25	0	10	0	0	1	8	0	3	9	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	0	5	1
:30	0	6	0	1	0	2	0	3	16	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	4	0	18	2
:35	0	4	0	1	1	1	0	3	8	1	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	1	2	0	19	3
:40	0	4	0	1	0	3	0	3	11	0	0	0	0	0	0	7	1	0	0	0	0	0	0	1	1	0	1	3	11	2
:45	1	2	0	1	0	5	0	4	15	0	0	1	0	0	1	1	2	0	0	0	0	1	0	0	0	2	1	1	15	2
:50	0	2	0	3	0	2	0	4	13	1	0	0	0	0	0	1	2	0	0	0	0	0	0	1	1	0	3	3	14	2
:55	0	6	0	0	1	6	0	5	8	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	1	1	2	11	4
Totals	3	124	6	41	7	183	2	75	273	3	2	1	0	1	6	22	38	0	0	0	0	2	2	4	5	21	40	32	349	60
PH	1	70	6	25	3	122	2	44	153	1	2	0	0	1	4	7	22	0	0	0	0	1	2	1	1	15	21	16	190	35
PHF	0.64						0.92						1.42						#####						0.83					
PHV	0	1	1	3	1	8	0	3	14	0	0	0	0	0	0	2	11	0	0	0	0	0	0	0	0	1	5	10	19	7
	0.062						0.084						0.382						0						0.151					

Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

16285 SW 85th Avenue, Ste. 302
Tigard, OR 97224
Phone: 503-620-4242
Fax: 503 620-4545
www.qualitycounts.net

Site Code: 10609106
Location: Motel Dr/Belmont Cir & Belmont Ave
Date: 4/27/2011

Peak Hour: 4:30pm - 5:30pm
Peak 15-minutes: 5:10pm - 5:25pm
Peak Hour Factor: 0.90

	Motel Dr Southbound						Belmont Ave Westbound						Wesley Ave Northbound						Arthur Northbound						Belmont Ave Eastbound					
Time	U-Turns	Right to Belmont WB	Thru to Arthur	Thru to Wesley	Left to Thorne	Left to Belmont EB	U-Turns	Right to Motel Dr	Thru to Belmont WB	Left to Arthur	Left to Wesley	Left to Thorne	U-Turns	Right to Thorne	Right to Belmont EB	Thru to Motel Dr	Left to Belmont WB	Left to Arthur	U-Turns	Right to Wesley	Right to Thorne	Right to Belmont EB	Thru to Motel Dr	Left to Belmont WB	U-Turns	Right to Arthur	Right to Wesley	Thru to Thorne	Thru to Belmont EB	Left to Motel Dr
16:00	0	4	0	0	0	3	1	7	26	2	0	0	0	0	2	0	3	0	0	0	0	1	0	0	1	0	1	0	18	2
:05	0	5	0	1	0	1	0	13	15	2	1	0	0	0	4	1	2	0	0	0	0	0	1	0	1	0	8	0	28	10
:10	0	8	0	2	1	1	1	9	19	0	1	0	0	0	2	3	3	0	0	0	0	0	0	0	0	0	4	1	26	1
:15	0	0	0	0	1	6	1	5	21	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6	3	25	5
:20	1	3	0	0	0	0	0	5	25	0	2	1	0	1	4	2	1	0	0	0	0	0	0	0	0	0	2	0	27	3
:25	0	2	0	0	0	2	0	4	17	0	0	0	0	0	2	0	6	0	0	0	0	0	0	0	1	0	2	0	27	3
:30	0	4	0	1	0	6	0	9	16	0	0	0	0	0	4	5	2	0	0	0	0	0	1	0	0	0	4	1	24	11
:35	0	1	0	0	0	3	0	8	19	0	0	0	0	0	5	1	3	0	0	0	0	0	0	0	3	0	2	0	22	8
:40	0	4	0	3	0	7	2	14	20	1	3	0	0	0	4	0	3	0	0	0	0	0	0	0	0	0	0	1	26	7
:45	0	5	0	0	0	8	1	11	23	0	1	0	0	0	1	2	4	0	0	0	0	1	0	0	0	0	2	2	16	6
:50	0	1	0	1	0	4	0	4	20	0	0	0	0	0	5	4	2	0	0	0	0	2	0	0	0	0	3	0	26	9
:55	0	3	0	0	1	2	0	15	12	0	0	2	0	0	0	4	0	0	0	0	0	3	1	1	0	0	2	1	18	1
17:00	0	5	1	0	0	3	0	4	10	0	1	1	0	0	2	2	5	0	0	0	0	1	0	0	0	0	1	0	19	11
:05	0	2	0	1	0	2	0	5	16	0	2	1	0	0	4	2	2	0	0	0	0	1	0	0	0	0	2	0	32	9
:10	0	2	2	0	0	3	0	21	23	0	1	1	0	0	6	5	2	0	0	0	0	0	0	0	0	0	1	0	20	8
:15	0	2	0	0	1	6	1	25	19	0	0	0	0	0	2	6	2	0	0	0	0	0	1	0	0	0	0	1	21	7
:20	0	4	1	2	0	3	3	11	17	1	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	0	29	7
:25	0	6	1	1	1	8	0	3	25	0	2	0	0	0	1	2	0	0	0	0	0	0	0	0	0	2	0	0	20	4
:30	0	4	0	0	0	5	0	7	20	0	2	0	0	0	1	2	1	0	0	0	0	0	0	1	0	0	0	3	19	13
:35	0	4	0	2	0	5	1	7	18	0	1	2	0	0	4	2	1	0	0	0	0	0	0	0	0	1	3	2	19	4
:40	0	4	0	1	1	7	0	5	20	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	21	2
:45	0	3	0	0	0	1	0	5	22	0	1	1	0	0	1	2	1	0	0	0	0	0	0	0	0	0	3	0	18	7
:50	0	7	0	1	0	5	0	9	11	0	0	0	0	0	4	2	0	0	0	0	0	0	0	0	0	0	0	1	16	4
:55	1	4	0	0	0	1	0	5	14	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	1	1	0	9	3
Totals	2	87	5	16	6	92	11	211	448	6	20	11	0	1	60	53	46	0	0	0	0	9	4	2	6	4	49	16	526	145
PH	0	39	5	9	3	55	7	130	220	2	11	6	0	0	35	33	26	0	0	0	0	8	3	1	3	2	19	6	273	88
PHF	1.07						0.75						0.94						3						1.02					
PHV	0	0	0	1	0	3	0	2	8	0	4	4	0	0	6	1	5	0	0	0	0	0	0	0	0	0	2	2	15	2
HV%	0.04						0.05						0.13						0						0.05					

Type of peak hour being reported: Intersection Peak

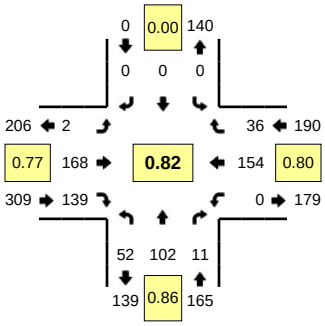
Method for determining peak hour: Total Entering Volume

LOCATION: H St -- Belmont Ave

QC JOB #: 10609107

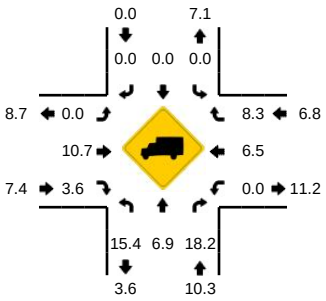
CITY/STATE: Fresno, CA

DATE: 4/27/2011

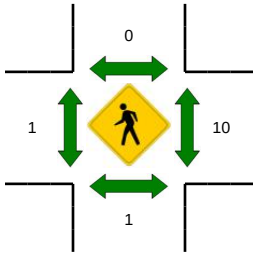


Peak-Hour: 7:25 AM -- 8:25 AM

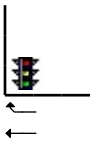
Peak 15-Min: 7:40 AM -- 7:55 AM

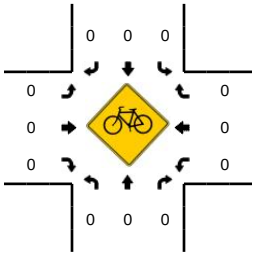


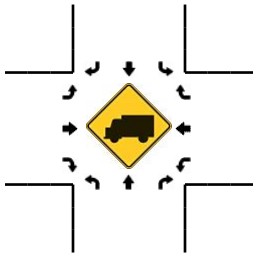


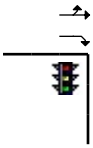


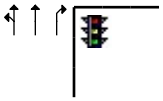


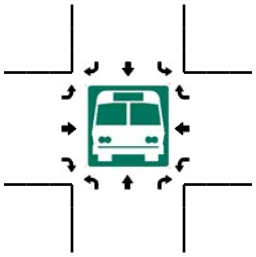












5-Min Count Period Beginning At	H St (Northbound)				H St (Southbound)				Belmont Ave (Eastbound)				Belmont Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	5	0	0	0	0	0	0	0	10	3	0	0	8	2	0	32	
7:05 AM	1	6	1	0	0	0	0	0	0	11	7	0	0	8	3	0	37	
7:10 AM	2	2	2	0	0	0	0	0	0	10	7	0	0	9	6	0	38	
7:15 AM	3	5	0	0	0	0	0	0	0	20	12	0	0	6	7	0	53	
7:20 AM	2	5	0	0	0	0	0	0	0	14	8	0	0	4	3	0	36	
7:25 AM	1	4	1	0	0	0	0	0	0	13	8	0	0	13	1	0	41	
7:30 AM	3	4	0	0	0	0	0	0	0	11	18	0	0	10	4	0	50	
7:35 AM	6	7	0	0	0	0	0	0	0	15	12	0	0	8	2	0	50	
7:40 AM	5	10	1	0	0	0	0	0	0	22	18	0	0	16	4	0	76	
7:45 AM	7	7	1	0	0	0	0	0	0	17	17	0	0	11	4	0	64	
7:50 AM	4	5	1	0	0	0	0	0	0	17	17	0	0	15	4	0	63	
7:55 AM	6	5	1	0	0	0	0	0	0	17	17	0	0	11	4	0	61	601
8:00 AM	2	14	0	0	0	0	0	0	0	13	7	0	0	14	2	0	52	621
8:05 AM	3	13	0	0	0	0	0	0	0	13	7	0	0	5	4	0	45	629
8:10 AM	8	7	3	0	0	0	0	0	0	11	7	0	0	10	1	0	47	638
8:15 AM	5	12	2	0	0	0	0	0	1	10	7	0	0	21	2	0	60	645
8:20 AM	2	14	1	0	0	0	0	0	1	9	4	0	0	20	4	0	55	664
8:25 AM	4	8	0	0	0	0	0	0	0	8	3	0	0	8	6	0	37	660
8:30 AM	6	9	1	0	0	0	0	0	0	18	2	0	0	13	3	0	52	662
8:35 AM	6	11	0	0	0	0	0	0	1	15	3	0	0	8	3	0	47	659
8:40 AM	4	13	1	0	0	0	0	0	0	9	5	0	0	10	4	0	46	629
8:45 AM	5	6	1	0	0	0	0	0	0	16	7	0	0	16	7	0	58	623
8:50 AM	4	6	2	0	0	0	0	0	0	14	1	0	0	11	2	0	40	600
8:55 AM	1	9	0	0	0	0	0	0	0	15	4	0	0	12	1	0	42	581

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	64	88	12	0	0	0	0	0	0	224	208	0	0	168	48	0	812
Heavy Trucks	4	0	0		0	0	0		0	24	4		0	16	12		60
Pedestrians		0				0				4				12			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

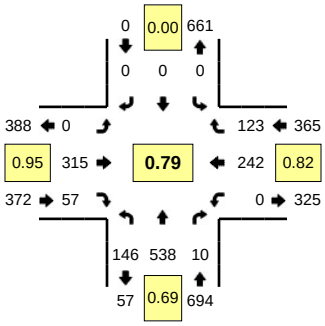
Method for determining peak hour: Total Entering Volume

LOCATION: H St -- Belmont Ave

QC JOB #: 10609108

CITY/STATE: Fresno, CA

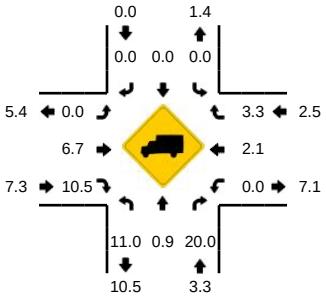
DATE: 4/27/2011

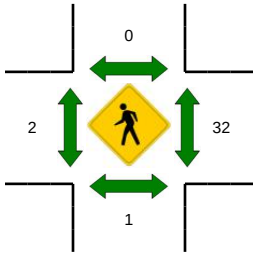


Peak-Hour: 4:35 PM -- 5:35 PM

Peak 15-Min: 5:10 PM -- 5:25 PM

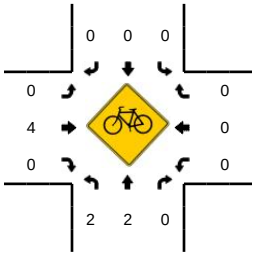


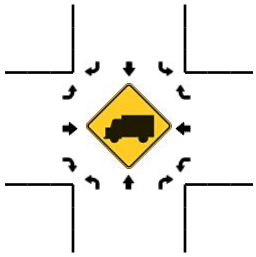


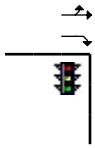


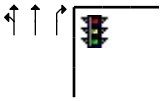


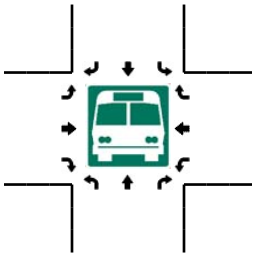












5-Min Count Period Beginning At	H St (Northbound)				H St (Southbound)				Belmont Ave (Eastbound)				Belmont Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	11	20	5	0	0	0	0	0	0	21	5	0	0	28	3	0	93	
4:05 PM	17	28	4	0	0	0	0	0	1	26	4	0	0	11	5	0	96	
4:10 PM	11	34	5	0	0	0	0	0	0	24	6	0	0	22	11	0	113	
4:15 PM	12	32	1	0	0	0	0	0	0	26	2	0	0	21	11	0	105	
4:20 PM	9	17	2	0	0	0	0	0	0	31	1	0	0	23	7	0	90	
4:25 PM	10	16	2	0	0	0	0	0	0	26	4	0	0	13	9	0	80	
4:30 PM	7	25	1	0	0	0	0	0	0	25	8	0	0	18	5	0	89	
4:35 PM	9	48	0	0	0	0	0	0	0	26	4	0	0	20	9	0	116	
4:40 PM	16	42	0	0	0	0	0	0	0	29	7	0	0	27	12	0	133	
4:45 PM	16	47	0	0	0	0	0	0	0	20	7	0	0	19	8	0	117	
4:50 PM	4	31	2	0	0	0	0	0	0	32	5	0	0	17	11	0	102	
4:55 PM	14	33	1	0	0	0	0	0	0	23	1	0	0	15	7	0	94	1228
5:00 PM	2	30	2	0	0	0	0	0	0	25	2	0	0	13	7	0	81	1216
5:05 PM	10	57	0	0	0	0	0	0	0	40	2	0	0	17	9	0	135	1255
5:10 PM	22	58	1	0	0	0	0	0	0	21	8	0	0	27	9	0	146	1288
5:15 PM	25	77	1	0	0	0	0	0	0	27	2	0	0	22	12	0	166	1349
5:20 PM	13	49	2	0	0	0	0	0	0	28	6	0	0	22	19	0	139	1398
5:25 PM	9	31	0	0	0	0	0	0	0	25	6	0	0	21	7	0	99	1417
5:30 PM	6	35	1	0	0	0	0	0	0	19	7	0	0	22	13	0	103	1431
5:35 PM	13	30	2	0	0	0	0	0	0	24	4	0	0	17	10	0	100	1415
5:40 PM	8	25	1	0	0	0	0	0	0	26	1	0	0	21	6	0	88	1370
5:45 PM	9	29	0	0	0	0	0	0	1	20	2	0	0	16	3	0	80	1333
5:50 PM	5	15	0	0	0	0	0	0	1	19	3	0	0	15	7	0	65	1296
5:55 PM	6	15	1	0	0	0	0	0	0	12	1	0	0	16	6	0	57	1259

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	240	736	16	0	0	0	0	0	0	304	64	0	0	284	160	0	1804
Heavy Trucks	16	0	4		0	0	0		0	16	8		0	0	0		44
Pedestrians		0				0				0				56			56
Bicycles	1	1	0		0	0	0		0	1	0		0	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

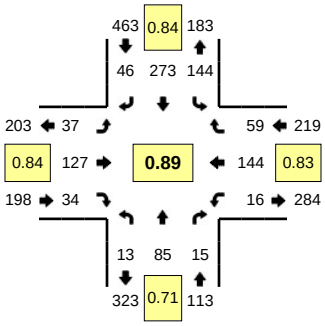
Method for determining peak hour: Total Entering Volume

LOCATION: Palm Ave -- Belmont Ave

QC JOB #: 10609109

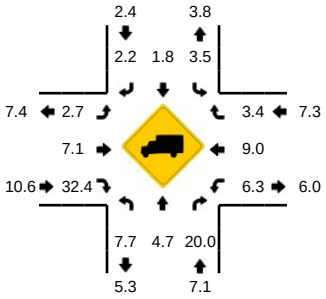
CITY/STATE: Fresno, CA

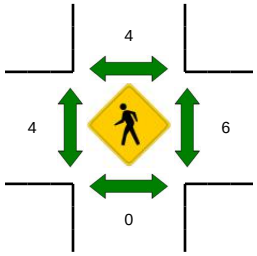
DATE: 4/27/2011

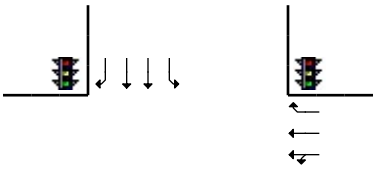


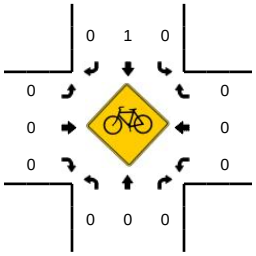
Peak-Hour: 7:25 AM -- 8:25 AM

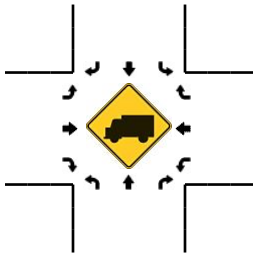
Peak 15-Min: 7:40 AM -- 7:55 AM

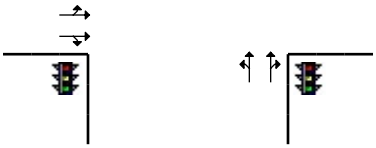


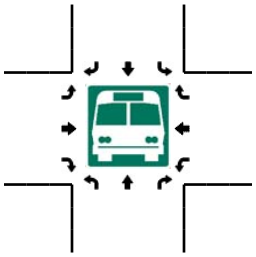












5-Min Count Period Beginning At	Palm Ave (Northbound)				Palm Ave (Southbound)				Belmont Ave (Eastbound)				Belmont Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	3	0	0	6	10	2	0	1	3	3	0	1	9	0	0	38	
7:05 AM	0	6	0	0	10	15	1	0	3	6	1	0	2	10	1	0	55	
7:10 AM	2	5	1	0	7	16	3	0	1	10	2	0	0	8	4	0	59	
7:15 AM	1	4	1	0	7	20	0	0	3	7	2	0	1	11	1	0	58	
7:20 AM	0	4	2	0	7	9	0	0	2	8	2	0	1	4	1	0	40	
7:25 AM	0	8	2	0	11	17	4	0	5	11	2	0	0	9	6	0	75	
7:30 AM	2	9	2	0	15	21	4	0	5	9	3	0	1	6	2	0	79	
7:35 AM	0	16	1	0	11	26	3	0	4	8	1	0	3	12	2	0	87	
7:40 AM	0	4	2	0	14	23	3	1	7	16	2	0	2	12	4	0	90	
7:45 AM	3	7	0	0	17	20	4	0	3	15	2	0	0	12	4	0	87	
7:50 AM	2	8	2	0	9	41	5	1	1	10	3	0	3	14	3	0	102	
7:55 AM	0	4	2	0	10	25	3	0	3	11	8	0	1	18	5	0	90	860
8:00 AM	1	5	1	0	11	25	4	0	0	7	2	0	1	11	9	0	77	899
8:05 AM	1	3	0	0	12	20	3	0	4	16	1	0	3	11	10	0	84	928
8:10 AM	0	6	1	0	8	15	1	0	3	3	6	0	1	6	3	0	53	922
8:15 AM	1	8	1	0	12	15	7	0	1	11	2	0	1	23	4	0	86	950
8:20 AM	3	7	1	0	12	25	5	0	1	10	2	0	0	10	7	0	83	993
8:25 AM	2	4	0	0	13	16	2	1	0	2	3	0	1	10	4	0	58	976
8:30 AM	1	5	3	0	6	16	6	0	2	13	2	0	2	14	2	0	72	969
8:35 AM	1	8	1	0	7	10	3	0	4	8	1	0	0	11	4	0	58	940
8:40 AM	0	0	0	0	7	10	2	0	2	10	0	0	4	11	2	0	48	898
8:45 AM	2	5	1	0	11	12	6	1	3	12	3	0	0	13	3	0	72	883
8:50 AM	1	8	4	0	6	6	3	0	3	11	2	0	3	14	6	0	67	848
8:55 AM	0	5	0	0	5	8	1	0	1	13	2	0	3	12	7	0	57	815

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	76	16	0	160	336	48	8	44	164	28	0	20	152	44	0	1116
Heavy Trucks	0	4	0		0	8	0		4	4	12		0	36	0		68
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

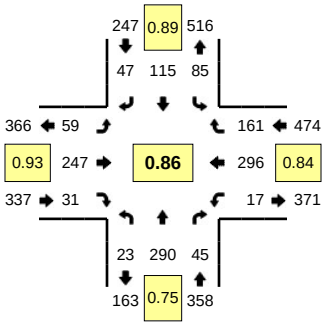
Method for determining peak hour: Total Entering Volume

LOCATION: Palm Ave -- Belmont Ave

QC JOB #: 10609110

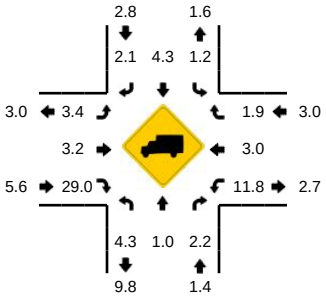
CITY/STATE: Fresno, CA

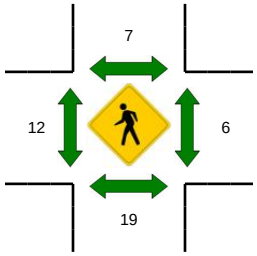
DATE: 4/27/2011

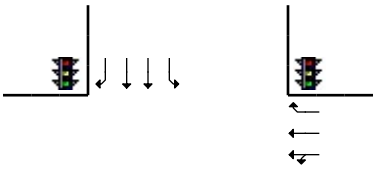


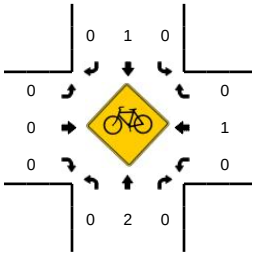
Peak-Hour: 4:30 PM -- 5:30 PM

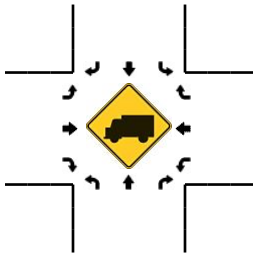
Peak 15-Min: 5:10 PM -- 5:25 PM

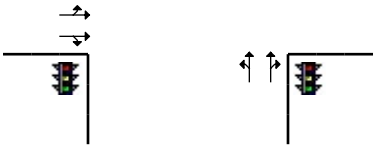


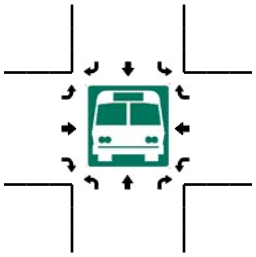












5-Min Count Period Beginning At	Palm Ave (Northbound)				Palm Ave (Southbound)				Belmont Ave (Eastbound)				Belmont Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	16	6	0	6	20	3	1	6	12	6	0	2	27	11	0	116	
4:05 PM	1	15	2	0	6	8	6	0	6	18	3	0	2	18	9	0	94	
4:10 PM	1	21	3	0	10	11	3	1	1	28	2	0	2	29	11	0	123	
4:15 PM	1	24	1	0	10	10	1	0	3	14	3	0	2	29	5	0	103	
4:20 PM	2	12	4	0	2	5	2	2	3	28	2	0	2	22	4	0	90	
4:25 PM	2	15	2	0	4	12	5	0	4	17	3	0	0	18	5	0	87	
4:30 PM	1	21	2	0	6	7	1	0	5	23	1	0	1	18	10	0	96	
4:35 PM	1	28	2	0	10	7	4	0	3	19	0	0	1	28	13	0	116	
4:40 PM	2	21	1	0	5	9	4	2	3	29	2	0	3	35	19	0	135	
4:45 PM	1	14	1	0	1	13	8	1	0	14	2	0	4	24	7	0	90	
4:50 PM	3	25	3	0	8	10	3	0	4	28	6	0	0	20	14	0	124	
4:55 PM	1	20	9	0	4	8	2	0	8	17	1	0	1	19	13	0	103	1277
5:00 PM	4	12	5	0	10	13	1	1	7	11	3	0	1	15	11	0	94	1255
5:05 PM	4	34	4	0	5	6	5	0	8	20	4	0	0	19	12	0	121	1282
5:10 PM	2	29	4	0	10	12	8	1	10	19	3	0	1	24	18	0	141	1300
5:15 PM	2	34	6	0	6	8	5	0	3	21	3	0	2	31	15	0	136	1333
5:20 PM	0	32	2	0	7	10	3	0	3	26	1	0	1	36	13	0	134	1377
5:25 PM	2	20	6	0	7	12	3	1	5	20	5	0	2	27	16	0	126	1416
5:30 PM	2	17	1	0	7	9	3	0	4	10	2	0	1	26	6	0	88	1408
5:35 PM	1	21	1	0	7	8	4	0	6	15	6	0	0	29	7	0	105	1397
5:40 PM	4	20	4	0	11	8	1	0	7	18	3	0	2	21	11	0	110	1372
5:45 PM	2	19	1	0	16	8	3	0	5	15	4	0	1	14	7	0	95	1377
5:50 PM	3	14	0	0	9	11	1	0	4	14	8	0	1	19	9	0	93	1346
5:55 PM	2	11	2	0	11	13	3	0	2	10	1	0	0	18	6	0	79	1322

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	380	48	0	92	120	64	4	64	264	28	0	16	364	184	0	1644
Heavy Trucks	0	4	4		0	4	0		4	4	12		4	0	0		36
Pedestrians		32				0				16				12			60
Bicycles	0	1	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

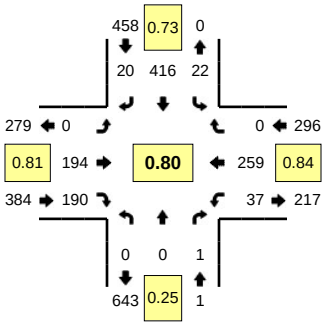
Method for determining peak hour: Total Entering Volume

LOCATION: Fulton St -- Belmont Ave

QC JOB #: 10609111

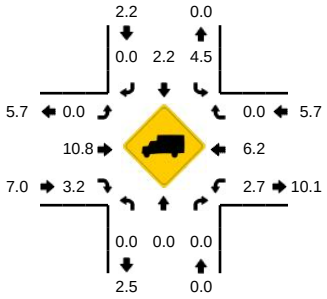
CITY/STATE: Fresno, CA

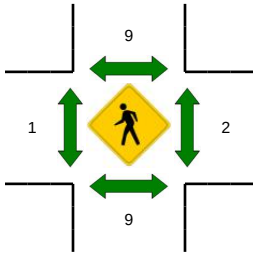
DATE: 4/27/2011

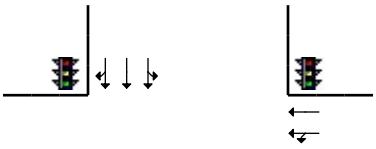


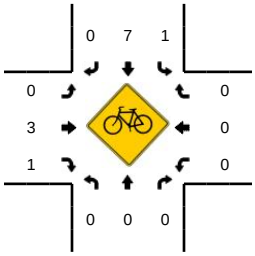
Peak-Hour: 7:20 AM -- 8:20 AM

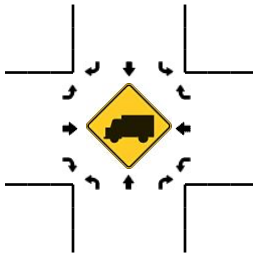
Peak 15-Min: 7:40 AM -- 7:55 AM



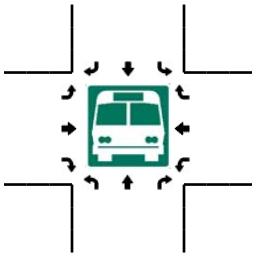












5-Min Count Period Beginning At	Fulton St (Northbound)				Fulton St (Southbound)				Belmont Ave (Eastbound)				Belmont Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	2	20	2	0	0	6	6	0	1	12	0	0	49	
7:05 AM	0	0	0	0	0	27	1	0	0	2	11	0	2	11	0	0	54	
7:10 AM	0	0	0	0	1	26	0	0	0	4	11	0	1	11	0	0	54	
7:15 AM	0	0	0	0	1	26	1	0	0	9	6	0	3	11	0	0	57	
7:20 AM	0	0	0	0	0	21	0	0	0	12	25	0	3	14	0	0	75	
7:25 AM	0	0	0	0	0	30	1	0	0	12	14	0	2	17	0	0	76	
7:30 AM	0	0	0	0	1	29	3	0	0	15	15	0	3	11	0	0	77	
7:35 AM	0	0	0	0	3	35	4	0	0	11	20	0	1	23	0	0	97	
7:40 AM	0	0	0	0	3	55	2	0	0	24	19	0	3	24	0	0	130	
7:45 AM	0	0	1	0	3	48	1	0	0	23	11	0	1	23	0	0	111	
7:50 AM	0	0	0	0	0	43	2	0	0	15	27	0	3	27	0	0	117	
7:55 AM	0	0	0	0	2	36	1	0	0	18	12	0	5	23	0	0	97	994
8:00 AM	0	0	0	0	4	34	1	0	0	24	10	0	3	31	0	0	107	1052
8:05 AM	0	0	0	0	2	22	1	0	0	15	13	0	5	21	0	0	79	1077
8:10 AM	0	0	0	0	2	30	1	0	0	9	10	0	6	16	0	0	74	1097
8:15 AM	0	0	0	0	2	33	3	0	0	16	14	0	2	29	0	0	99	1139
8:20 AM	0	0	0	0	3	17	1	0	0	17	13	0	2	20	0	0	73	1137
8:25 AM	0	0	0	0	1	26	1	0	0	14	6	0	2	21	0	0	71	1132
8:30 AM	0	0	0	0	2	29	2	0	0	13	10	0	4	13	0	0	73	1128
8:35 AM	0	0	0	0	5	20	0	0	0	14	9	0	4	15	0	0	67	1098
8:40 AM	0	0	0	0	3	22	0	0	0	11	11	0	4	22	0	0	73	1041
8:45 AM	0	0	0	0	1	19	1	0	0	14	11	0	2	22	0	0	70	1000
8:50 AM	0	0	0	0	5	22	1	0	0	10	8	0	6	26	0	0	78	961
8:55 AM	0	0	0	0	2	40	1	0	0	13	8	0	4	28	0	0	96	960

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	4	0	24	584	20	0	0	248	228	0	28	296	0	0	1432
Heavy Trucks	0	0	0		0	12	0		0	8	0		0	24	0		44
Pedestrians		16				4				4				0			24
Bicycles	0	0	0		0	3	0		0	1	1		0	0	0		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

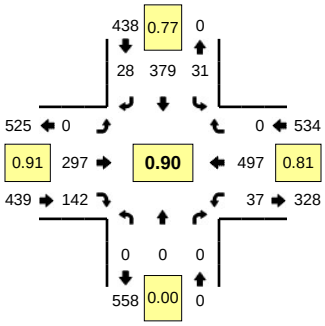
Method for determining peak hour: Total Entering Volume

LOCATION: Fulton St -- Belmont Ave

QC JOB #: 10609112

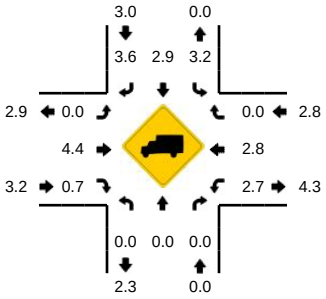
CITY/STATE: Fresno, CA

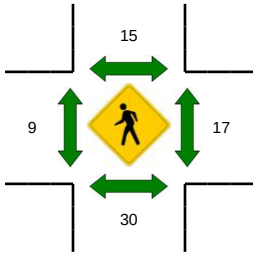
DATE: 4/27/2011

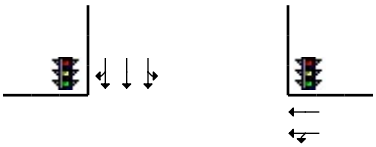


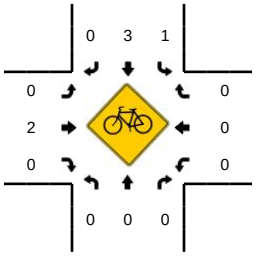
Peak-Hour: 4:30 PM -- 5:30 PM

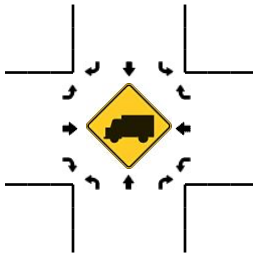
Peak 15-Min: 5:15 PM -- 5:30 PM



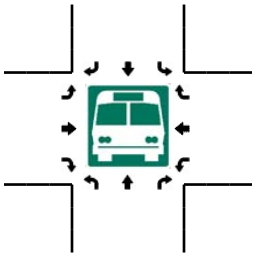












5-Min Count Period Beginning At	Fulton St (Northbound)				Fulton St (Southbound)				Belmont Ave (Eastbound)				Belmont Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	5	39	0	0	0	18	12	0	4	35	0	0	113	
4:05 PM	0	0	0	0	7	32	5	0	0	16	13	0	6	26	0	0	105	
4:10 PM	0	0	0	0	3	27	2	0	0	31	14	0	6	41	0	0	124	
4:15 PM	0	0	0	0	3	22	2	0	0	28	13	0	5	32	0	0	105	
4:20 PM	0	0	0	0	6	30	3	0	0	20	14	0	5	34	0	0	112	
4:25 PM	0	0	0	0	6	29	1	0	0	27	9	0	3	33	0	0	108	
4:30 PM	0	0	0	0	2	26	2	0	0	18	15	0	2	33	0	0	98	
4:35 PM	0	0	0	0	2	31	7	0	0	31	8	0	4	50	0	0	133	
4:40 PM	0	0	0	0	4	26	1	0	0	26	11	0	1	38	0	0	107	
4:45 PM	0	0	0	0	3	28	2	0	0	21	9	0	5	42	0	0	110	
4:50 PM	0	0	0	0	0	25	0	0	0	32	14	0	2	39	0	0	112	
4:55 PM	0	0	0	0	2	41	3	0	0	28	10	0	3	31	0	0	118	1345
5:00 PM	0	0	0	0	6	50	3	0	0	24	15	0	5	31	0	0	134	1366
5:05 PM	0	0	0	0	3	35	1	0	0	14	8	0	4	35	0	0	100	1361
5:10 PM	0	0	0	0	3	27	1	0	0	24	9	0	4	40	0	0	108	1345
5:15 PM	0	0	0	0	1	34	2	0	0	28	16	0	5	52	0	0	138	1378
5:20 PM	0	0	0	0	5	27	1	0	0	28	12	0	2	50	0	0	125	1391
5:25 PM	0	0	0	0	0	29	5	0	0	23	15	0	0	56	0	0	128	1411
5:30 PM	0	0	0	0	1	29	4	0	0	17	3	0	2	31	0	0	87	1400
5:35 PM	0	0	0	0	1	36	0	0	0	19	12	0	1	46	0	0	115	1382
5:40 PM	0	0	0	0	0	24	2	0	0	18	8	0	2	35	0	0	89	1364
5:45 PM	0	0	0	0	1	31	1	0	0	29	12	0	3	22	0	0	99	1353
5:50 PM	0	0	0	0	4	17	0	0	0	18	10	0	2	42	0	0	93	1334
5:55 PM	0	0	0	0	2	27	1	0	0	22	12	0	5	35	0	0	104	1320

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	24	360	32	0	0	316	172	0	28	632	0	0	1564
Heavy Trucks	0	0	0		0	16	0		0	20	0		0	16	0		52
Pedestrians		60				4				16				20			100
Bicycles	0	0	0		0	1	0		0	1	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

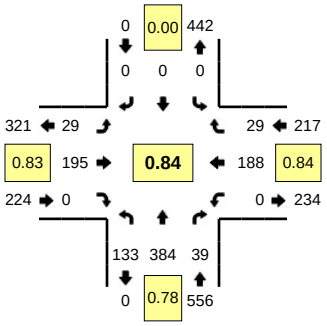
Method for determining peak hour: Total Entering Volume

LOCATION: Van Ness Ave -- Belmont Ave

QC JOB #: 10609113

CITY/STATE: Fresno, CA

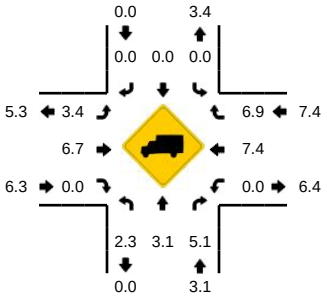
DATE: 4/27/2011

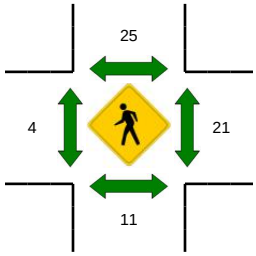


Peak-Hour: 7:30 AM -- 8:30 AM

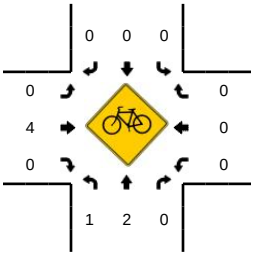
Peak 15-Min: 7:50 AM -- 8:05 AM

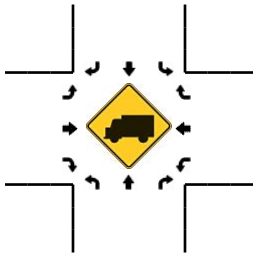




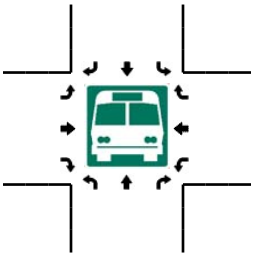












5-Min Count Period Beginning At	Van Ness Ave (Northbound)				Van Ness Ave (Southbound)				Belmont Ave (Eastbound)				Belmont Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	20	3	0	0	0	0	0	0	8	0	0	0	11	0	0	46	
7:05 AM	3	12	0	0	0	0	0	0	0	2	0	0	0	9	2	0	28	
7:10 AM	5	16	2	0	0	0	0	0	2	5	0	0	0	9	0	0	39	
7:15 AM	10	15	0	0	0	0	0	0	0	9	0	0	0	5	3	0	42	
7:20 AM	9	13	3	0	0	0	0	0	0	12	0	0	0	9	0	0	46	
7:25 AM	8	19	6	0	0	0	0	0	1	9	0	0	0	12	0	0	55	
7:30 AM	5	32	3	0	0	0	0	0	0	15	0	0	0	8	2	0	65	
7:35 AM	8	21	2	0	0	0	0	0	2	12	0	0	0	20	3	0	68	
7:40 AM	11	32	1	0	0	0	0	0	2	22	0	0	0	14	4	0	86	
7:45 AM	15	46	3	0	0	0	0	0	6	24	0	0	0	10	1	0	105	
7:50 AM	14	41	6	0	0	0	0	0	2	13	0	0	0	16	4	0	96	
7:55 AM	13	39	2	0	0	0	0	0	2	16	0	0	0	18	2	0	92	768
8:00 AM	17	32	6	0	0	0	0	0	3	25	0	0	0	21	5	0	109	831
8:05 AM	16	38	2	0	0	0	0	0	2	18	0	0	0	16	1	0	93	896
8:10 AM	11	27	3	0	0	0	0	0	0	10	0	0	0	11	1	0	63	920
8:15 AM	6	18	4	0	0	0	0	0	4	13	0	0	0	25	2	0	72	950
8:20 AM	8	28	4	0	0	0	0	0	2	18	0	0	0	12	2	0	74	978
8:25 AM	9	30	3	0	0	0	0	0	4	9	0	0	0	17	2	0	74	997
8:30 AM	6	29	2	0	0	0	0	0	0	14	0	0	0	9	0	0	60	992
8:35 AM	3	28	1	0	0	0	0	0	4	16	0	0	0	17	2	0	71	995
8:40 AM	6	29	1	0	0	0	0	0	7	9	0	0	0	20	3	0	75	984
8:45 AM	4	27	1	0	0	0	0	0	0	15	0	0	0	20	5	0	72	951
8:50 AM	13	31	2	0	0	0	0	0	1	13	0	0	0	18	4	0	82	937
8:55 AM	11	22	0	0	0	0	0	0	2	15	0	0	0	21	2	0	73	918

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	176	448	56	0	0	0	0	0	28	216	0	0	0	220	44	0	1188
Heavy Trucks	4	8	0		0	0	0		0	20	0		0	12	4		48
Pedestrians		0				20				4				12			36
Bicycles	0	1	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

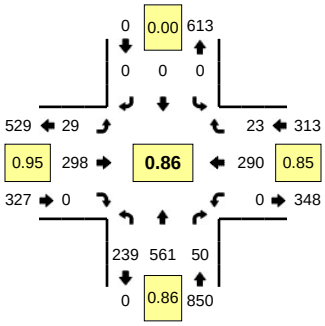
Method for determining peak hour: Total Entering Volume

LOCATION: Van Ness Ave -- Belmont Ave

QC JOB #: 10609114

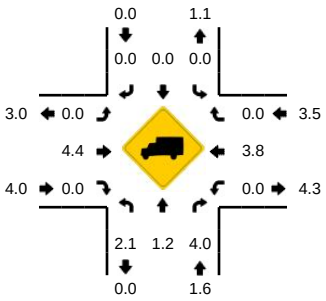
CITY/STATE: Fresno, CA

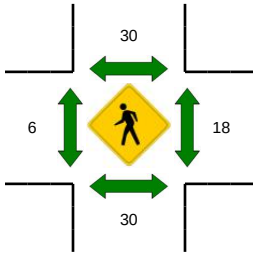
DATE: 4/27/2011



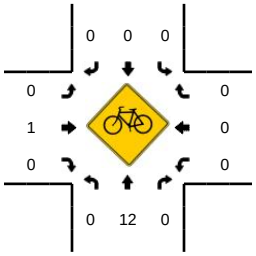
Peak-Hour: 4:35 PM -- 5:35 PM

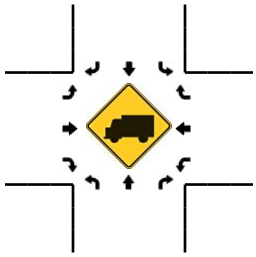
Peak 15-Min: 5:15 PM -- 5:30 PM



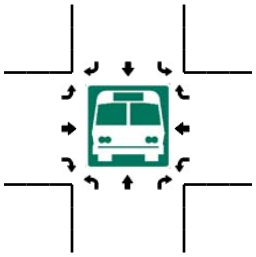












5-Min Count Period Beginning At	Van Ness Ave (Northbound)				Van Ness Ave (Southbound)				Belmont Ave (Eastbound)				Belmont Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	14	30	4	0	0	0	0	0	2	19	0	0	0	24	1	0	94	
4:05 PM	7	32	3	0	0	0	0	0	2	20	0	0	0	25	3	0	92	
4:10 PM	20	47	4	0	0	0	0	0	6	26	0	0	0	29	3	0	135	
4:15 PM	6	37	3	0	0	0	0	0	6	23	0	0	0	29	2	0	106	
4:20 PM	15	32	3	0	0	0	0	0	2	25	0	0	0	22	1	0	100	
4:25 PM	23	44	3	0	0	0	0	0	4	28	0	0	0	18	1	0	121	
4:30 PM	9	28	2	0	0	0	0	0	2	18	0	0	0	25	1	0	85	
4:35 PM	24	34	5	0	0	0	0	0	4	29	0	0	0	29	3	0	128	
4:40 PM	14	47	5	0	0	0	0	0	4	25	0	0	0	23	3	0	121	
4:45 PM	24	48	6	0	0	0	0	0	1	27	0	0	0	23	2	0	131	
4:50 PM	22	46	4	0	0	0	0	0	5	24	0	0	0	21	1	0	123	
4:55 PM	14	37	2	0	0	0	0	0	2	28	0	0	0	18	3	0	104	1340
5:00 PM	16	50	4	0	0	0	0	0	2	29	0	0	0	19	0	0	120	1366
5:05 PM	18	48	2	0	0	0	0	0	1	16	0	0	0	26	3	0	114	1388
5:10 PM	18	57	3	0	0	0	0	0	0	26	0	0	0	24	0	0	128	1381
5:15 PM	25	60	3	0	0	0	0	0	2	22	0	0	0	32	2	0	146	1421
5:20 PM	26	50	6	0	0	0	0	0	5	31	0	0	0	28	3	0	149	1470
5:25 PM	24	49	6	0	0	0	0	0	3	21	0	0	0	32	1	0	136	1485
5:30 PM	14	35	4	0	0	0	0	0	0	20	0	0	0	15	2	0	90	1490
5:35 PM	17	53	4	0	0	0	0	0	4	17	0	0	0	29	4	0	128	1490
5:40 PM	11	44	6	0	0	0	0	0	3	16	0	0	0	30	3	0	113	1482
5:45 PM	8	42	8	0	0	0	0	0	1	26	0	0	0	20	3	0	108	1459
5:50 PM	18	46	4	0	0	0	0	0	4	23	0	0	0	24	6	0	125	1461
5:55 PM	14	45	4	0	0	0	0	0	3	18	0	0	0	26	2	0	112	1469

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	300	636	60	0	0	0	0	0	40	296	0	0	0	368	24	0	1724
Heavy Trucks	4	12	4		0	0	0		0	20	0		0	8	0		48
Pedestrians		44				24				0				16			84
Bicycles	0	4	0		0	0	0		0	0	0		0	0	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

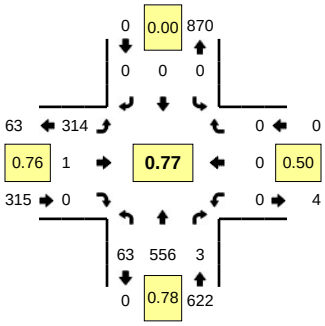
Method for determining peak hour: Total Entering Volume

LOCATION: Abby St -- Brehmer Ave

QC JOB #: 10609115

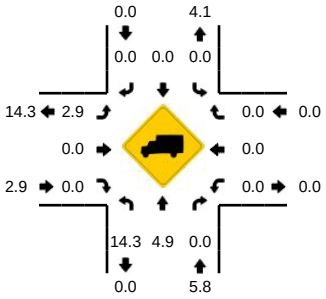
CITY/STATE: Fresno, CA

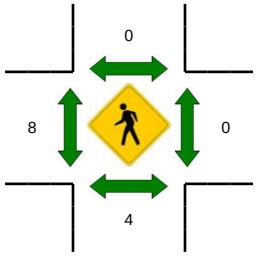
DATE: 4/27/2011



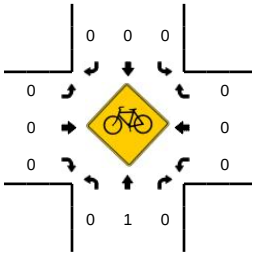
Peak-Hour: 7:25 AM -- 8:25 AM

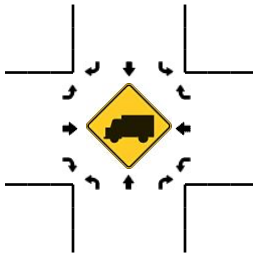
Peak 15-Min: 7:45 AM -- 8:00 AM

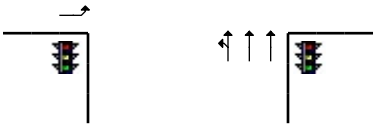


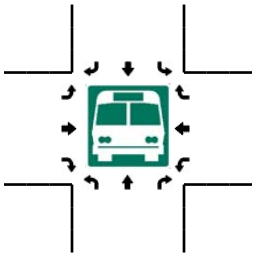












5-Min Count Period Beginning At	Abby St (Northbound)				Abby St (Southbound)				Brehmer Ave (Eastbound)				Brehmer Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	6	17	0	0	0	0	0	0	13	0	0	0	0	0	0	0	36	
7:05 AM	4	24	0	0	0	0	0	0	14	0	0	0	0	0	0	0	42	
7:10 AM	1	17	0	0	0	0	0	0	11	0	0	0	0	0	0	0	29	
7:15 AM	5	23	0	0	0	0	0	0	14	0	0	0	0	0	0	0	42	
7:20 AM	1	31	0	0	0	0	0	0	21	0	0	0	0	0	0	0	53	
7:25 AM	6	34	0	0	0	0	0	0	23	0	0	0	0	0	0	0	63	
7:30 AM	4	49	0	0	0	0	0	0	37	0	0	0	0	0	0	0	90	
7:35 AM	5	60	0	0	0	0	0	0	16	0	0	0	0	0	0	0	81	
7:40 AM	3	56	0	0	0	0	0	0	35	0	0	0	0	0	0	0	94	
7:45 AM	8	58	0	0	0	0	0	0	35	0	0	0	0	0	0	0	101	
7:50 AM	3	68	0	0	0	0	0	0	34	0	0	0	0	0	0	0	105	
7:55 AM	6	57	0	0	0	0	0	0	34	0	0	0	0	0	0	0	97	833
8:00 AM	10	40	0	0	0	0	0	0	26	0	0	0	0	0	0	0	76	873
8:05 AM	2	37	1	0	0	0	0	0	30	1	0	0	0	0	0	0	71	902
8:10 AM	3	27	0	0	0	0	0	0	10	0	0	0	0	0	0	0	40	913
8:15 AM	7	44	0	0	0	0	0	0	14	0	0	0	0	0	0	0	65	936
8:20 AM	6	26	2	0	0	0	0	0	20	0	0	0	0	0	0	0	54	937
8:25 AM	10	35	0	0	0	0	0	0	14	0	0	0	0	0	0	0	59	933
8:30 AM	5	39	0	0	0	0	0	0	21	0	0	0	0	0	1	0	66	909
8:35 AM	1	41	0	0	0	0	0	0	16	0	0	0	0	0	0	0	58	886
8:40 AM	3	43	0	0	0	0	0	0	19	0	0	0	0	0	0	0	65	857
8:45 AM	6	44	0	0	0	0	0	0	16	0	0	0	0	0	0	0	66	822
8:50 AM	5	32	1	0	0	0	0	0	17	0	0	0	0	1	0	0	56	773
8:55 AM	8	32	0	0	0	0	0	0	19	0	0	0	0	0	0	0	59	735

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	68	732	0	0	0	0	0	0	412	0	0	0	0	0	0	0	1212
Heavy Trucks	8	28	0		0	0	0		4	0	0		0	0	0		40
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

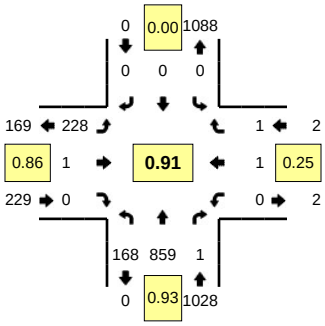
Method for determining peak hour: Total Entering Volume

LOCATION: Abby St -- Brehmer Ave

QC JOB #: 10609116

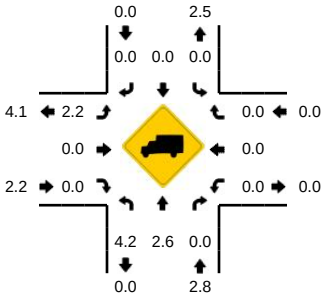
CITY/STATE: Fresno, CA

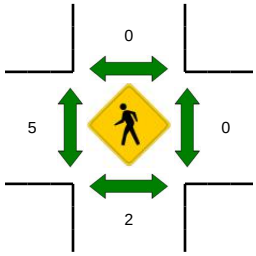
DATE: 4/27/2011



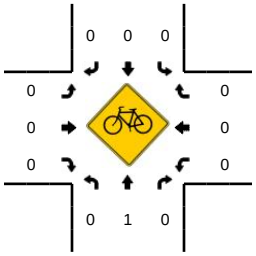
Peak-Hour: 4:30 PM -- 5:30 PM

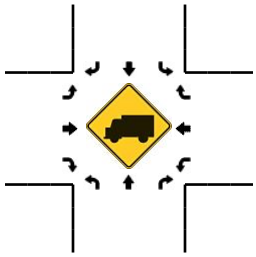
Peak 15-Min: 5:05 PM -- 5:20 PM

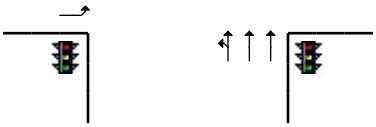


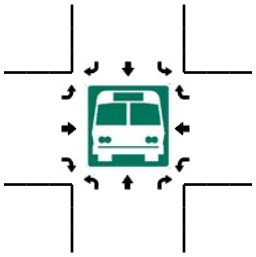












5-Min Count Period Beginning At	Abby St (Northbound)				Abby St (Southbound)				Brehmer Ave (Eastbound)				Brehmer Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	12	63	0	0	0	0	0	0	12	0	0	0	0	0	0	0	87	
4:05 PM	13	60	0	0	0	0	0	0	9	0	0	0	0	0	0	0	82	
4:10 PM	13	65	0	0	0	0	0	0	13	0	0	0	0	0	0	0	91	
4:15 PM	12	54	0	0	0	0	0	0	15	0	0	0	0	0	0	0	81	
4:20 PM	15	46	0	0	0	0	0	0	8	0	0	0	0	0	0	0	69	
4:25 PM	7	47	0	0	0	0	0	0	18	0	0	0	0	0	0	0	72	
4:30 PM	15	68	0	0	0	0	0	0	16	0	0	0	0	0	0	0	99	
4:35 PM	16	84	0	0	0	0	0	0	14	0	0	0	0	0	0	0	114	
4:40 PM	14	78	0	0	0	0	0	0	14	0	0	0	0	0	0	0	106	
4:45 PM	8	77	0	0	0	0	0	0	26	0	0	0	0	1	0	0	112	
4:50 PM	15	77	0	0	0	0	0	0	16	0	0	0	0	0	1	0	109	
4:55 PM	14	62	0	0	0	0	0	0	16	0	0	0	0	0	0	0	92	1114
5:00 PM	18	62	0	0	0	0	0	0	15	0	0	0	0	0	0	0	95	1122
5:05 PM	20	71	0	0	0	0	0	0	26	0	0	0	0	0	0	0	117	1157
5:10 PM	12	94	0	0	0	0	0	0	22	0	0	0	0	0	0	0	128	1194
5:15 PM	15	60	1	0	0	0	0	0	23	0	0	0	0	0	0	0	99	1212
5:20 PM	10	73	0	0	0	0	0	0	17	1	0	0	0	0	0	0	101	1244
5:25 PM	11	53	0	0	0	0	0	0	23	0	0	0	0	0	0	0	87	1259
5:30 PM	8	61	0	0	0	0	0	0	19	0	0	0	0	0	0	0	88	1248
5:35 PM	10	45	0	0	0	0	0	0	15	0	0	0	0	0	0	0	70	1204
5:40 PM	10	43	0	0	0	0	0	0	25	0	0	0	0	0	0	0	78	1176
5:45 PM	5	64	0	0	0	0	0	0	23	0	0	0	0	0	0	0	92	1156
5:50 PM	9	46	0	0	0	0	0	0	18	0	0	0	0	0	0	0	73	1120
5:55 PM	9	31	0	0	0	0	0	0	17	0	0	0	0	0	0	0	57	1085

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	188	900	4	0	0	0	0	0	284	0	0	0	0	0	0	0	1376
Heavy Trucks	0	24	0		0	0	0		0	0	0		0	0	0		24
Pedestrians		0				0				12				0			12
Bicycles	0	1	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

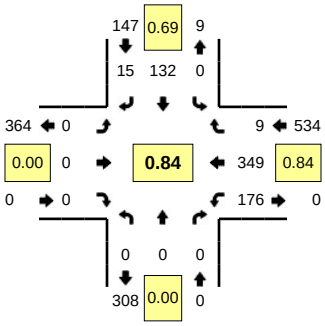
Method for determining peak hour: Total Entering Volume

LOCATION: M St -- Stanislaus St

QC JOB #: 10609117

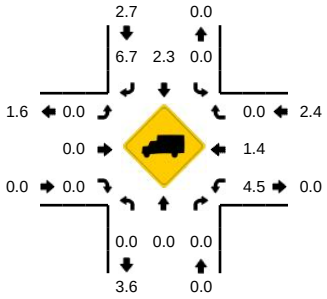
CITY/STATE: Fresno, CA

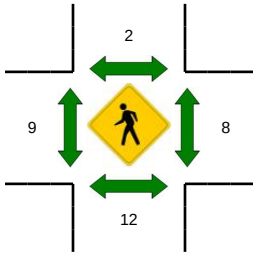
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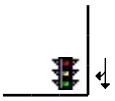


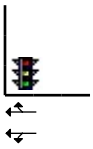
Peak-Hour: 7:35 AM -- 8:35 AM

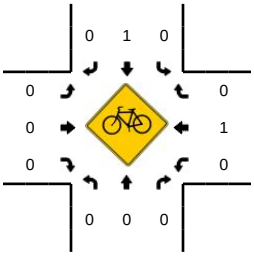
Peak 15-Min: 7:55 AM -- 8:10 AM

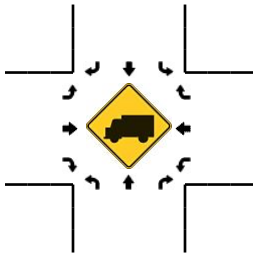






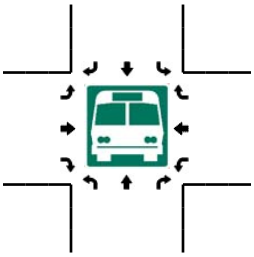












5-Min Count Period Beginning At	M St (Northbound)				M St (Southbound)				Stanislaus St (Eastbound)				Stanislaus St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	5	0	0	0	0	0	0	9	14	2	0	30	
7:05 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	12	2	0	19	
7:10 AM	0	0	0	0	0	9	1	0	0	0	0	0	11	13	3	0	37	
7:15 AM	0	0	0	0	0	6	1	0	0	0	0	0	10	18	0	0	35	
7:20 AM	0	0	0	0	0	8	2	0	0	0	0	0	10	17	0	0	37	
7:25 AM	0	0	0	0	0	7	0	0	0	0	0	0	12	25	1	0	45	
7:30 AM	0	0	0	0	0	5	2	0	0	0	0	0	12	22	0	0	41	
7:35 AM	0	0	0	0	0	11	0	0	0	0	0	0	15	22	0	0	48	
7:40 AM	0	0	0	0	0	11	1	0	0	0	0	0	11	27	1	0	51	
7:45 AM	0	0	0	0	0	13	3	0	0	0	0	0	16	26	0	0	58	
7:50 AM	0	0	0	0	0	18	3	0	0	0	0	0	13	23	0	0	57	
7:55 AM	0	0	0	0	0	16	1	0	0	0	0	0	18	41	1	0	77	535
8:00 AM	0	0	0	0	0	15	0	0	0	0	0	0	16	25	0	0	56	561
8:05 AM	0	0	0	0	0	11	2	0	0	0	0	0	20	37	0	0	70	612
8:10 AM	0	0	0	0	0	13	1	0	0	0	0	0	14	23	0	0	51	626
8:15 AM	0	0	0	0	0	5	2	0	0	0	0	0	10	35	2	0	54	645
8:20 AM	0	0	0	0	0	4	0	0	0	0	0	0	28	31	3	0	66	674
8:25 AM	0	0	0	0	0	9	0	0	0	0	0	0	10	29	0	0	48	677
8:30 AM	0	0	0	0	0	6	2	0	0	0	0	0	5	30	2	0	45	681
8:35 AM	0	0	0	0	0	10	1	0	0	0	0	0	9	22	2	0	44	677
8:40 AM	0	0	0	0	0	3	1	0	0	0	0	0	8	20	4	0	36	662
8:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	5	21	0	0	29	633
8:50 AM	0	0	0	0	0	5	0	0	0	0	0	0	13	16	1	0	35	611
8:55 AM	0	0	0	0	0	4	1	0	0	0	0	0	14	22	2	0	43	577

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	168	12	0	0	0	0	0	216	412	4	0	812
Heavy Trucks	0	0	0		0	4	0		0	0	0		8	0	0		12
Pedestrians		12				0				20				8			40
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

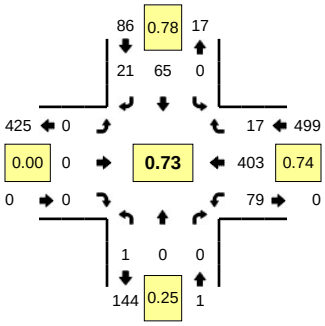
Method for determining peak hour: Total Entering Volume

LOCATION: M St -- Stanislaus St

QC JOB #: 10609118

CITY/STATE: Fresno, CA

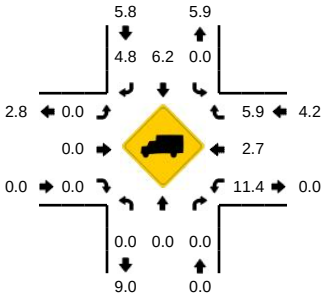
DATE: 4/27/2011

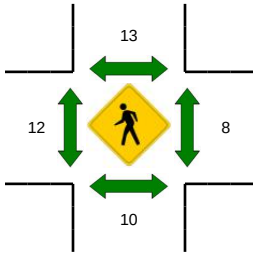


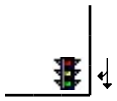
Peak-Hour: 4:00 PM -- 5:00 PM

Peak 15-Min: 4:30 PM -- 4:45 PM

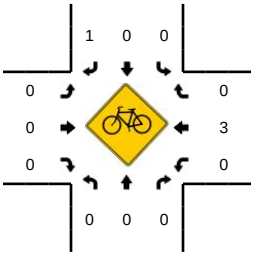


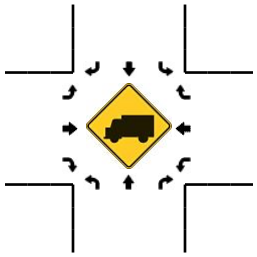




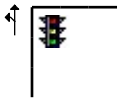


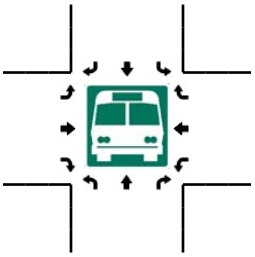












5-Min Count Period Beginning At	M St (Northbound)				M St (Southbound)				Stanislaus St (Eastbound)				Stanislaus St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	4	0	0	0	0	0	9	36	2	0	51	
4:05 PM	0	0	0	0	0	1	1	0	0	0	0	0	3	40	2	0	47	
4:10 PM	0	0	0	0	0	4	3	0	0	0	0	0	7	29	1	0	44	
4:15 PM	0	0	0	0	0	10	1	0	0	0	0	0	6	25	1	0	43	
4:20 PM	0	0	0	0	0	3	1	0	0	0	0	0	6	27	1	0	38	
4:25 PM	0	0	0	0	0	7	1	0	0	0	0	0	6	12	0	0	26	
4:30 PM	0	0	0	0	0	12	2	0	0	0	0	0	6	39	4	0	63	
4:35 PM	0	0	0	0	0	5	1	0	0	0	0	0	9	59	1	0	75	
4:40 PM	0	0	0	0	0	8	2	0	0	0	0	0	6	45	2	0	63	
4:45 PM	0	0	0	0	0	6	1	0	0	0	0	0	4	41	1	0	53	
4:50 PM	0	0	0	0	0	4	1	0	0	0	0	0	7	34	1	0	47	
4:55 PM	1	0	0	0	0	5	3	0	0	0	0	0	10	16	1	0	36	586
5:00 PM	0	0	0	0	0	8	1	0	0	0	0	0	4	28	1	0	42	577
5:05 PM	0	0	0	0	0	4	0	0	0	0	0	0	8	37	2	0	51	581
5:10 PM	0	0	0	0	0	6	0	0	0	0	0	0	6	33	4	0	49	586
5:15 PM	0	0	0	0	0	3	1	0	0	0	0	0	5	33	1	0	43	586
5:20 PM	0	0	0	0	0	2	1	0	0	0	0	0	3	18	2	0	26	574
5:25 PM	0	0	0	0	0	2	0	0	0	0	0	0	5	30	0	0	37	585
5:30 PM	0	0	0	0	0	4	0	0	0	0	0	0	4	27	2	0	37	559
5:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	8	23	0	0	31	515
5:40 PM	0	0	0	0	0	3	0	0	0	0	0	0	2	13	1	0	19	471
5:45 PM	0	0	0	0	0	5	0	0	0	0	0	0	6	18	1	0	30	448
5:50 PM	0	0	0	0	0	1	1	0	0	0	0	0	2	12	2	0	18	419
5:55 PM	0	0	0	0	0	1	1	0	0	0	0	0	1	21	0	0	24	407

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	100	20	0	0	0	0	0	84	572	28	0	804
Heavy Trucks	0	0	0		0	8	0		0	0	0		4	12	0		24
Pedestrians		16				12				24				20			72
Bicycles	0	0	0		0	0	0		0	0	0		0	1	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

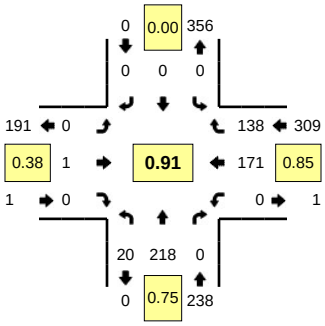
Method for determining peak hour: Total Entering Volume

LOCATION: SR 99 NB Ramps -- Stanislaus St

QC JOB #: 10609119

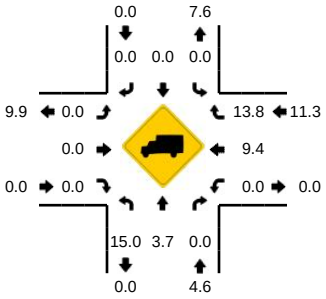
CITY/STATE: Fresno, CA

DATE: 4/27/2011

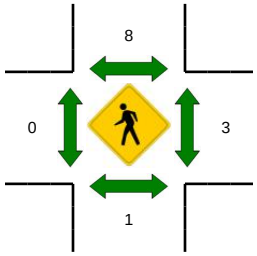


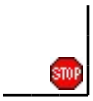
Peak-Hour: 7:25 AM -- 8:25 AM

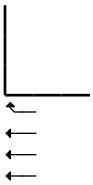
Peak 15-Min: 7:45 AM -- 8:00 AM

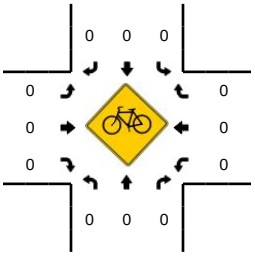


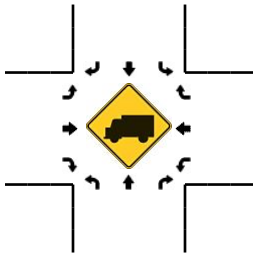




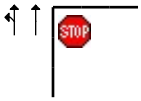


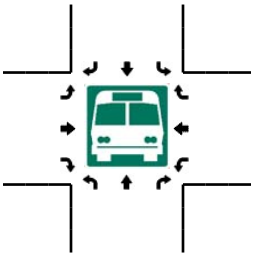












5-Min Count Period Beginning At	SR 99 NB Ramps (Northbound)				SR 99 NB Ramps (Southbound)				Stanislaus St (Eastbound)				Stanislaus St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	10	0	0	0	0	0	0	0	0	0	0	0	9	4	0	27	
7:05 AM	1	17	0	0	0	0	0	0	0	0	0	0	0	13	12	0	43	
7:10 AM	1	14	0	0	0	0	0	0	0	0	0	0	0	10	11	0	36	
7:15 AM	0	10	0	0	0	0	0	0	0	0	0	0	0	12	11	0	33	
7:20 AM	0	17	0	0	0	0	0	0	0	0	0	0	0	8	11	0	36	
7:25 AM	3	17	0	0	0	0	0	0	0	0	0	0	0	13	8	0	41	
7:30 AM	1	29	0	0	0	0	0	0	0	0	0	0	0	10	8	0	48	
7:35 AM	1	23	0	0	0	0	0	0	0	0	0	0	0	10	10	0	44	
7:40 AM	0	27	0	0	0	0	0	0	0	0	0	0	0	11	11	0	49	
7:45 AM	2	25	0	0	0	0	0	0	0	0	0	0	0	15	14	0	56	
7:50 AM	4	17	0	0	0	0	0	0	0	0	0	0	0	13	9	0	43	
7:55 AM	2	16	0	0	0	0	0	0	0	0	0	0	0	23	10	0	51	507
8:00 AM	0	16	0	0	0	0	0	0	0	0	0	0	0	9	9	0	34	514
8:05 AM	3	8	0	0	0	0	0	0	0	1	0	0	0	17	17	0	46	517
8:10 AM	2	14	0	0	0	0	0	0	0	0	0	0	0	16	8	0	40	521
8:15 AM	0	13	0	0	0	0	0	0	0	0	0	0	0	15	19	0	47	535
8:20 AM	2	13	0	0	0	0	0	0	0	0	0	0	0	19	15	0	49	548
8:25 AM	1	12	0	0	0	0	0	0	0	0	0	0	0	11	8	0	32	539
8:30 AM	1	9	0	0	0	0	0	0	0	0	0	0	0	12	7	0	29	520
8:35 AM	2	14	0	0	0	0	0	0	0	0	0	0	0	19	8	0	43	519
8:40 AM	2	12	0	0	0	0	0	0	0	0	0	0	0	13	14	0	41	511
8:45 AM	0	18	0	0	0	0	0	0	0	0	0	0	0	8	30	0	56	511
8:50 AM	3	16	0	0	0	0	0	0	0	1	0	0	0	20	16	0	56	524
8:55 AM	2	11	0	0	0	0	0	0	0	1	0	0	0	12	5	0	31	504

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	232	0	0	0	0	0	0	0	0	0	0	0	204	132	0	600
Heavy Trucks	4	16	0		0	0	0		0	0	0		0	16	20		56
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

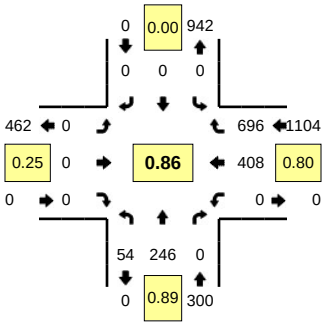
Method for determining peak hour: Total Entering Volume

LOCATION: SR 99 NB Ramps -- Stanislaus St

QC JOB #: 10609120

CITY/STATE: Fresno, CA

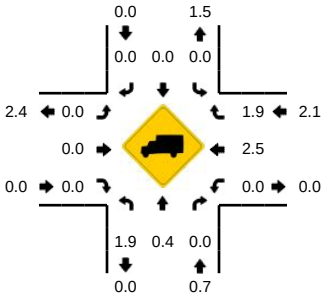
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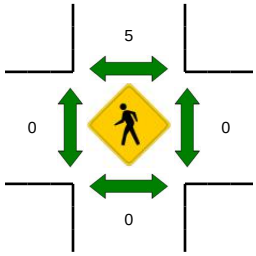


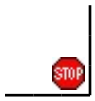
Peak-Hour: 4:30 PM -- 5:30 PM

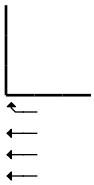
Peak 15-Min: 5:00 PM -- 5:15 PM

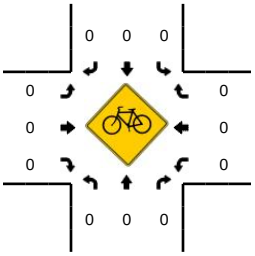


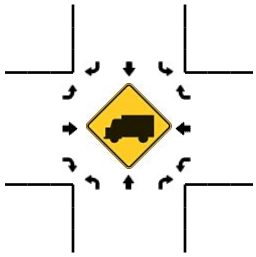




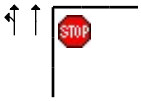


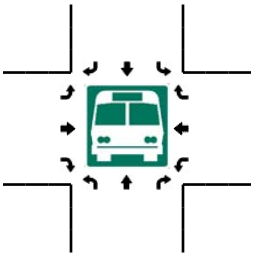












5-Min Count Period Beginning At	SR 99 NB Ramps (Northbound)				SR 99 NB Ramps (Southbound)				Stanislaus St (Eastbound)				Stanislaus St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	16	0	0	0	0	0	0	0	0	0	0	0	22	41	0	83	
4:05 PM	0	17	0	0	0	0	0	0	0	0	0	0	0	29	61	0	107	
4:10 PM	2	18	0	0	0	0	0	0	0	0	0	0	0	27	56	0	103	
4:15 PM	3	13	0	0	0	0	0	0	0	0	0	0	0	24	39	0	79	
4:20 PM	2	20	0	0	0	0	0	0	0	0	0	0	0	22	40	0	84	
4:25 PM	6	19	0	0	0	0	0	0	0	0	0	0	0	19	36	0	80	
4:30 PM	4	19	0	0	0	0	0	0	0	0	0	0	0	34	52	0	109	
4:35 PM	4	26	0	0	0	0	0	0	0	0	0	0	0	51	53	0	134	
4:40 PM	7	24	0	0	0	0	0	0	0	0	0	0	0	34	66	0	131	
4:45 PM	7	17	0	0	0	0	0	0	0	0	0	0	0	40	46	0	110	
4:50 PM	7	18	0	0	0	0	0	0	0	0	0	0	0	30	43	0	98	
4:55 PM	2	22	0	0	0	0	0	0	0	0	0	0	0	28	55	0	107	1225
5:00 PM	4	16	0	0	0	0	0	0	0	0	0	0	0	37	81	0	138	1280
5:05 PM	1	23	0	0	0	0	0	0	0	0	0	0	0	36	94	0	154	1327
5:10 PM	2	15	0	0	0	0	0	0	0	0	0	0	0	30	69	0	116	1340
5:15 PM	7	19	0	0	0	0	0	0	0	0	0	0	0	37	56	0	119	1380
5:20 PM	5	22	0	0	0	0	0	0	0	0	0	0	0	26	44	0	97	1393
5:25 PM	4	25	0	0	0	0	0	0	0	0	0	0	0	25	37	0	91	1404
5:30 PM	6	18	0	0	0	0	0	0	0	0	0	0	0	29	44	0	97	1392
5:35 PM	3	25	0	0	0	0	0	0	0	0	0	0	0	24	45	0	97	1355
5:40 PM	5	16	0	0	0	0	0	0	0	0	0	0	0	15	39	0	75	1299
5:45 PM	0	24	0	0	0	0	0	0	0	0	0	0	0	21	28	0	73	1262
5:50 PM	1	16	0	0	0	0	0	0	0	1	0	0	0	12	30	0	60	1224
5:55 PM	4	10	0	0	0	0	0	0	0	0	0	0	0	23	28	0	65	1182

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	216	0	0	0	0	0	0	0	0	0	0	0	412	976	0	1632
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	12	8		24
Pedestrians		0				8				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

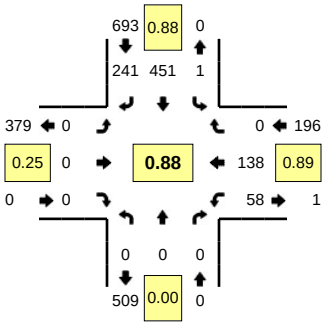
Method for determining peak hour: Total Entering Volume

LOCATION: SR 99 SB Off Ramp -- Stanislaus St

QC JOB #: 10609121

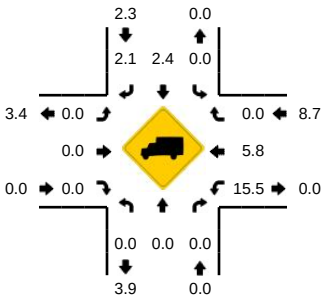
CITY/STATE: Fresno, CA

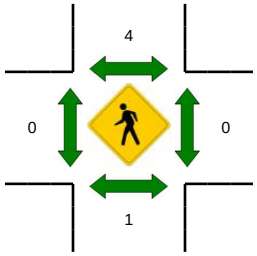
DATE: 4/27/2011

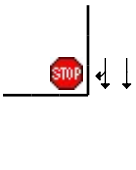


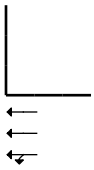
Peak-Hour: 7:25 AM -- 8:25 AM

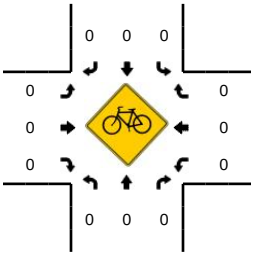
Peak 15-Min: 7:50 AM -- 8:05 AM

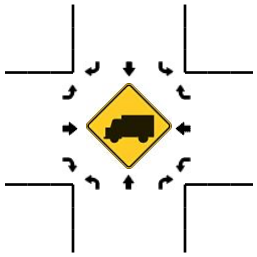






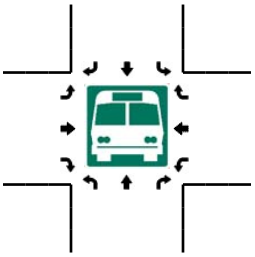












5-Min Count Period Beginning At	SR 99 SB Off Ramp (Northbound)				SR 99 SB Off Ramp (Southbound)				Stanislaus St (Eastbound)				Stanislaus St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	35	9	0	0	0	0	0	2	11	0	0	57	
7:05 AM	0	0	0	0	0	20	14	0	0	0	0	0	6	8	0	0	48	
7:10 AM	0	0	0	0	0	26	11	0	0	0	0	0	3	8	0	0	48	
7:15 AM	0	0	0	0	0	40	19	0	0	0	0	0	4	6	0	0	69	
7:20 AM	0	0	0	0	0	47	22	0	0	0	0	0	5	3	0	0	77	
7:25 AM	0	0	0	0	0	34	14	0	0	0	0	0	8	10	0	0	66	
7:30 AM	0	0	0	0	0	29	18	0	0	0	0	0	3	8	0	0	58	
7:35 AM	0	0	0	0	0	37	27	0	0	0	0	0	5	6	0	0	75	
7:40 AM	0	0	0	0	0	36	25	0	0	0	0	0	2	9	0	0	72	
7:45 AM	0	0	0	0	0	45	21	0	0	0	0	0	9	9	0	0	84	
7:50 AM	0	0	0	0	0	41	18	0	0	0	0	0	3	14	0	0	76	
7:55 AM	0	0	0	0	0	44	24	0	0	0	0	0	3	20	0	0	91	821
8:00 AM	0	0	0	0	0	49	25	0	0	0	0	0	6	5	0	0	85	849
8:05 AM	0	0	0	0	1	32	13	0	0	0	0	0	2	19	0	0	67	868
8:10 AM	0	0	0	0	0	30	20	0	0	0	0	0	8	10	0	0	68	888
8:15 AM	0	0	0	0	0	32	23	0	0	0	0	0	4	10	0	0	69	888
8:20 AM	0	0	0	0	0	42	13	0	0	0	0	0	5	18	0	0	78	889
8:25 AM	0	0	0	0	0	28	9	0	0	0	0	0	0	12	0	0	49	872
8:30 AM	0	0	0	0	0	28	12	0	0	0	0	0	1	12	0	0	53	867
8:35 AM	0	0	0	0	0	28	12	0	0	0	0	0	6	15	0	0	61	853
8:40 AM	0	0	0	0	0	26	12	0	0	0	0	0	10	5	0	0	53	834
8:45 AM	0	0	0	0	0	26	6	0	0	0	0	0	2	5	0	0	39	789
8:50 AM	0	0	0	0	0	21	12	0	0	1	0	0	7	16	0	0	57	770
8:55 AM	0	0	0	0	1	24	10	0	0	0	0	0	4	10	0	0	49	728

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	536	268	0	0	0	0	0	48	156	0	0	1008
Heavy Trucks	0	0	0		0	8	8		0	0	0		16	0	0		32
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

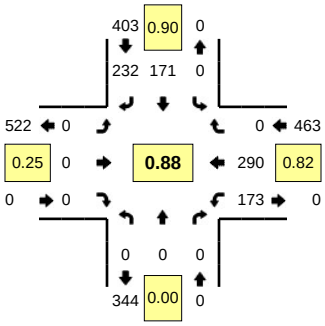
Method for determining peak hour: Total Entering Volume

LOCATION: SR 99 SB Off Ramp -- Stanislaus St

QC JOB #: 10609122

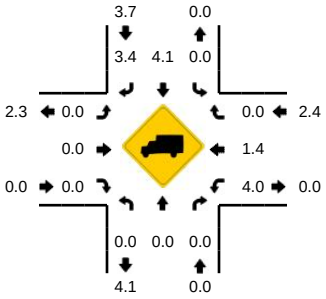
CITY/STATE: Fresno, CA

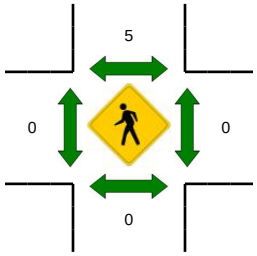
DATE: 4/27/2011

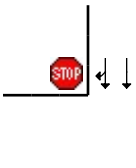


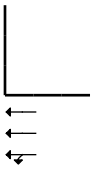
Peak-Hour: 4:30 PM -- 5:30 PM

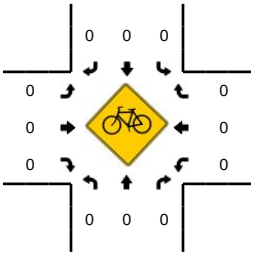
Peak 15-Min: 4:35 PM -- 4:50 PM

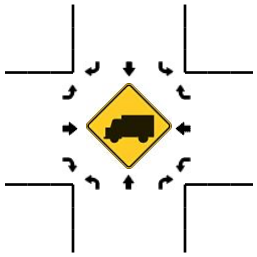






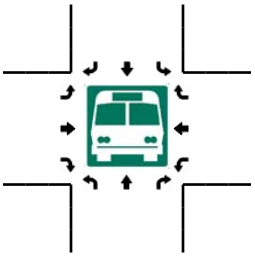












5-Min Count Period Beginning At	SR 99 SB Off Ramp (Northbound)				SR 99 SB Off Ramp (Southbound)				Stanislaus St (Eastbound)				Stanislaus St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	16	15	0	0	0	0	0	6	20	0	0	57	
4:05 PM	0	0	0	0	0	16	14	0	0	0	0	0	12	17	0	0	59	
4:10 PM	0	0	0	0	0	18	15	0	0	0	0	0	6	23	0	0	62	
4:15 PM	0	0	0	0	0	18	16	0	0	0	0	0	7	19	0	0	60	
4:20 PM	0	0	0	0	0	13	29	0	0	0	0	0	4	20	0	0	66	
4:25 PM	0	0	0	0	0	10	13	0	0	0	0	0	5	18	0	0	46	
4:30 PM	0	0	0	0	0	13	20	0	0	0	0	0	15	24	0	0	72	
4:35 PM	0	0	0	0	0	19	13	0	0	0	0	0	19	37	0	0	88	
4:40 PM	0	0	0	0	0	21	14	0	0	0	0	0	20	20	0	0	75	
4:45 PM	0	0	0	0	0	15	23	0	0	0	0	0	13	32	0	0	83	
4:50 PM	0	0	0	0	0	13	25	0	0	0	0	0	15	22	0	0	75	
4:55 PM	0	0	0	0	0	14	22	0	0	0	0	0	10	22	0	0	68	811
5:00 PM	0	0	0	0	0	11	15	0	0	0	0	0	22	19	0	0	67	821
5:05 PM	0	0	0	0	0	14	19	0	0	0	0	0	18	18	0	0	69	831
5:10 PM	0	0	0	0	0	13	16	0	0	0	0	0	14	19	0	0	62	831
5:15 PM	0	0	0	0	0	8	18	0	0	0	0	0	11	32	0	0	69	840
5:20 PM	0	0	0	0	0	16	25	0	0	0	0	0	10	22	0	0	73	847
5:25 PM	0	0	0	0	0	14	22	0	0	0	0	0	6	23	0	0	65	866
5:30 PM	0	0	0	0	0	13	14	0	0	0	0	0	6	27	0	0	60	854
5:35 PM	0	0	0	0	0	8	17	0	0	0	0	0	8	18	0	0	51	817
5:40 PM	0	0	0	0	0	5	18	0	0	0	0	0	7	15	0	0	45	787
5:45 PM	0	0	0	0	0	6	22	0	0	0	0	0	7	12	0	0	47	751
5:50 PM	0	0	0	0	0	8	9	0	0	1	0	0	5	10	0	0	33	709
5:55 PM	0	0	0	0	0	9	17	0	0	0	0	0	5	21	0	0	52	693

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	220	200	0	0	0	0	0	208	356	0	0	984
Heavy Trucks	0	0	0		0	0	4		0	0	0		8	0	0		12
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

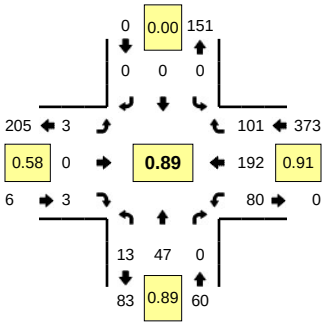
Method for determining peak hour: Total Entering Volume

LOCATION: B St -- Stanislaus St

QC JOB #: 10609123

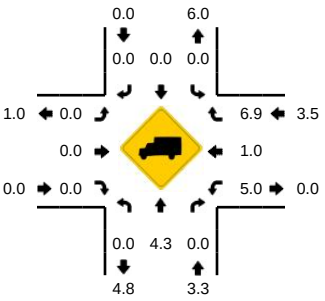
CITY/STATE: Fresno, CA

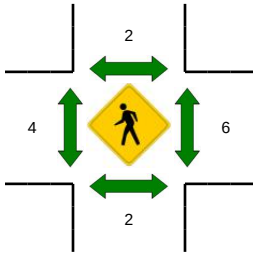
DATE: 4/27/2011



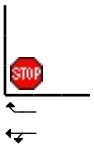
Peak-Hour: 7:25 AM -- 8:25 AM

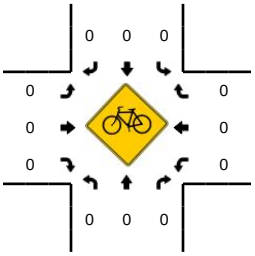
Peak 15-Min: 7:45 AM -- 8:00 AM

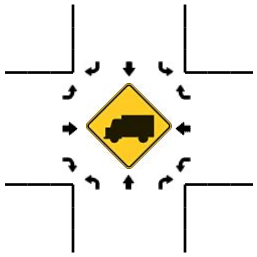




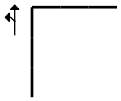


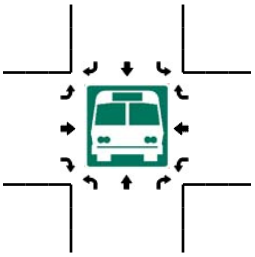












5-Min Count Period Beginning At	B St (Northbound)				B St (Southbound)				Stanislaus St (Eastbound)				Stanislaus St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	3	0	0	0	0	0	0	0	0	0	0	3	8	8	0	23	
7:05 AM	0	3	0	0	0	0	0	0	0	0	0	0	5	13	7	0	28	
7:10 AM	0	1	0	0	0	0	0	0	0	0	1	0	3	12	3	0	20	
7:15 AM	0	5	0	0	0	0	0	0	0	0	0	0	1	9	10	0	25	
7:20 AM	1	2	0	0	0	0	0	0	0	0	0	0	4	12	7	0	26	
7:25 AM	0	0	0	0	0	0	0	0	1	0	0	0	7	15	4	0	27	
7:30 AM	0	8	0	0	0	0	0	0	0	0	0	0	5	13	9	0	35	
7:35 AM	2	2	0	0	0	0	0	0	0	0	1	0	8	22	4	0	39	
7:40 AM	0	7	0	0	0	0	0	0	0	0	0	0	5	19	8	0	39	
7:45 AM	2	3	0	0	0	0	0	0	0	0	1	0	9	15	9	0	39	
7:50 AM	2	8	0	0	0	0	0	0	0	0	0	0	4	15	9	0	38	
7:55 AM	1	3	0	0	0	0	0	0	0	0	0	0	10	18	14	0	46	385
8:00 AM	2	4	0	0	0	0	0	0	0	0	0	0	6	15	9	0	36	398
8:05 AM	3	2	0	0	0	0	0	0	0	0	0	0	10	15	5	0	35	405
8:10 AM	0	4	0	0	0	0	0	0	1	0	1	0	6	16	7	0	35	420
8:15 AM	1	2	0	0	0	0	0	0	1	0	0	0	6	16	16	0	42	437
8:20 AM	0	4	0	0	0	0	0	0	0	0	0	0	4	13	7	0	28	439
8:25 AM	1	5	0	0	0	0	0	0	0	0	0	0	3	12	5	0	26	438
8:30 AM	0	9	0	0	0	0	0	0	0	0	0	0	3	13	5	0	30	433
8:35 AM	1	3	0	0	0	0	0	0	0	0	0	0	8	12	10	0	34	428
8:40 AM	0	5	0	0	0	0	0	0	1	0	1	0	4	5	5	0	21	410
8:45 AM	2	9	0	0	0	0	0	0	0	0	0	0	1	8	3	0	23	394
8:50 AM	1	6	0	0	0	0	0	0	0	1	0	0	4	7	13	0	32	388
8:55 AM	1	2	0	0	0	0	0	0	0	0	1	0	3	9	10	0	26	368

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	56	0	0	0	0	0	0	0	0	4	0	92	192	128	0	492
Heavy Trucks	0	0	0		0	0	0		0	0	0		8	0	4		12
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

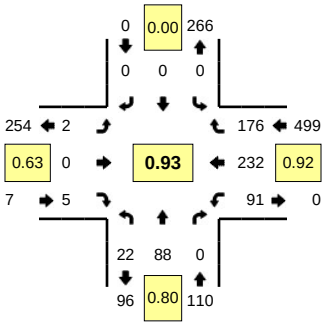
Method for determining peak hour: Total Entering Volume

LOCATION: B St -- Stanislaus St

QC JOB #: 10609124

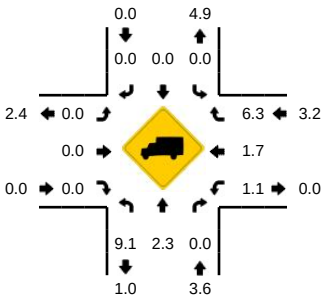
CITY/STATE: Fresno, CA

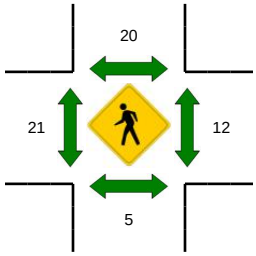
DATE: 4/27/2011



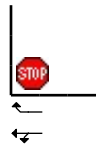
Peak-Hour: 4:20 PM -- 5:20 PM

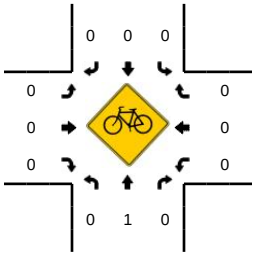
Peak 15-Min: 4:35 PM -- 4:50 PM

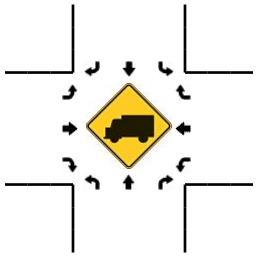


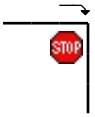


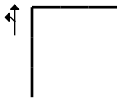


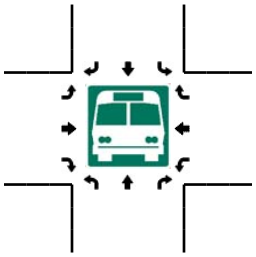












5-Min Count Period Beginning At	B St (Northbound)				B St (Southbound)				Stanislaus St (Eastbound)				Stanislaus St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	5	0	0	0	0	0	0	1	0	1	0	9	10	13	0	40	
4:05 PM	2	6	0	0	0	0	0	0	0	0	0	0	9	13	9	0	39	
4:10 PM	2	6	0	0	0	0	0	0	0	0	2	0	7	18	13	0	48	
4:15 PM	2	5	0	0	0	0	0	0	0	0	0	0	4	9	19	0	39	
4:20 PM	3	8	0	0	0	0	0	0	1	0	1	0	12	11	25	0	61	
4:25 PM	4	7	0	0	0	0	0	0	0	0	0	0	6	14	15	0	46	
4:30 PM	1	4	0	0	0	0	0	0	0	0	0	0	5	15	24	0	49	
4:35 PM	2	6	0	0	0	0	0	0	0	0	1	0	12	24	12	0	57	
4:40 PM	2	7	0	0	0	0	0	0	0	0	1	0	7	17	13	0	47	
4:45 PM	1	7	0	0	0	0	0	0	1	0	0	0	10	24	18	0	61	
4:50 PM	0	9	0	0	0	0	0	0	0	0	0	0	9	17	19	0	54	
4:55 PM	2	6	0	0	0	0	0	0	0	0	1	0	4	24	9	0	46	587
5:00 PM	2	8	0	0	0	0	0	0	0	0	1	0	3	20	5	0	39	586
5:05 PM	1	11	0	0	0	0	0	0	0	0	0	0	9	17	11	0	49	596
5:10 PM	2	11	0	0	0	0	0	0	0	0	0	0	6	25	10	0	54	602
5:15 PM	2	4	0	0	0	0	0	0	0	0	0	0	8	24	15	0	53	616
5:20 PM	1	4	0	0	0	0	0	0	0	0	1	0	3	24	14	0	47	602
5:25 PM	3	8	0	0	0	0	0	0	0	0	0	0	16	17	12	0	56	612
5:30 PM	1	11	0	0	0	0	0	0	0	0	0	0	8	21	11	0	52	615
5:35 PM	1	13	0	0	0	0	0	0	0	0	1	0	11	20	5	0	51	609
5:40 PM	0	11	0	0	0	0	0	0	0	0	0	0	7	12	12	0	42	604
5:45 PM	1	4	0	0	0	0	0	0	1	0	1	0	11	9	11	0	38	581
5:50 PM	2	5	0	0	0	0	0	0	0	0	0	0	6	8	4	0	25	552
5:55 PM	1	8	0	0	0	0	0	0	0	0	1	0	5	16	14	0	45	551

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	80	0	0	0	0	0	0	4	0	8	0	116	260	172	0	660
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	4	4		8
Pedestrians		12				16				24				20			72
Bicycles	0	1	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

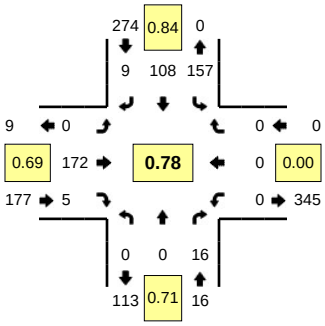
Method for determining peak hour: Total Entering Volume

LOCATION: A St -- Tuolumne St

QC JOB #: 10609125

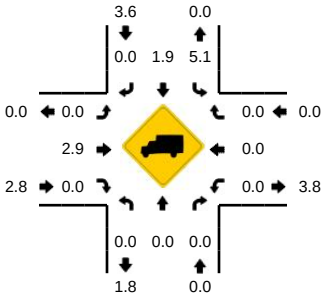
CITY/STATE: Fresno, CA

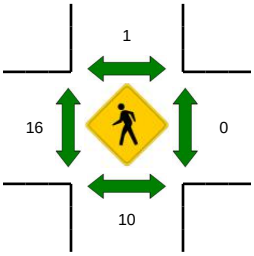
DATE: 4/27/2011



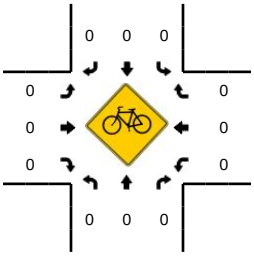
Peak-Hour: 7:15 AM -- 8:15 AM

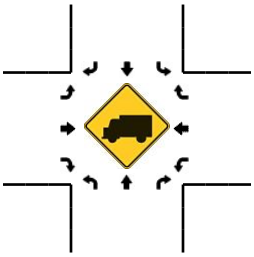
Peak 15-Min: 7:40 AM -- 7:55 AM



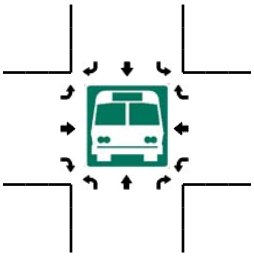












5-Min Count Period Beginning At	A St (Northbound)				A St (Southbound)				Tuolumne St (Eastbound)				Tuolumne St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	2	0	8	8	2	0	0	6	0	0	0	0	0	0	26	
7:05 AM	0	0	0	0	11	4	0	0	0	8	0	0	0	0	0	0	23	
7:10 AM	0	0	0	0	8	7	0	0	0	6	0	0	0	0	0	0	21	
7:15 AM	0	0	0	0	14	6	1	0	0	7	1	0	0	0	0	0	29	
7:20 AM	0	0	0	0	12	8	1	0	0	13	1	0	0	0	0	0	35	
7:25 AM	0	0	2	0	10	9	0	0	0	12	0	0	0	0	0	0	33	
7:30 AM	0	0	2	0	14	8	0	0	0	15	0	0	0	0	0	0	39	
7:35 AM	0	0	3	0	16	12	1	0	0	15	0	0	0	0	0	0	47	
7:40 AM	0	0	1	0	16	11	2	0	0	23	1	0	0	0	0	0	54	
7:45 AM	0	0	0	0	16	8	0	0	0	18	0	0	0	0	0	0	42	
7:50 AM	0	0	2	0	15	11	2	0	0	23	0	0	0	0	0	0	53	
7:55 AM	0	0	3	0	13	15	1	0	0	6	0	0	0	0	0	0	38	440
8:00 AM	0	0	2	0	10	5	0	0	0	12	1	0	0	0	0	0	30	444
8:05 AM	0	0	0	0	10	9	1	0	0	16	1	0	0	0	0	0	37	458
8:10 AM	0	0	1	0	11	6	0	0	0	12	0	0	0	0	0	0	30	467
8:15 AM	0	0	1	0	12	2	1	0	0	11	0	0	0	0	0	0	27	465
8:20 AM	0	0	3	0	11	6	0	0	0	10	1	0	0	0	0	0	31	461
8:25 AM	0	0	0	0	18	7	0	0	0	8	0	0	0	0	0	0	33	461
8:30 AM	0	0	0	0	14	10	2	0	0	8	1	0	0	0	0	0	35	457
8:35 AM	0	0	1	0	4	11	1	0	0	4	0	0	0	0	0	0	21	431
8:40 AM	0	0	2	0	12	7	0	0	0	6	0	0	0	0	0	0	27	404
8:45 AM	0	0	1	0	15	2	0	0	0	6	0	0	0	0	0	0	24	386
8:50 AM	0	0	0	0	12	6	0	0	0	5	0	0	0	0	0	0	23	356
8:55 AM	0	0	0	0	7	11	1	0	0	6	0	0	0	0	0	0	25	343

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	12	0	188	120	16	0	0	256	4	0	0	0	0	0	596
Heavy Trucks	0	0	0		4	0	0		0	8	0		0	0	0		12
Pedestrians		4				0				8				0			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

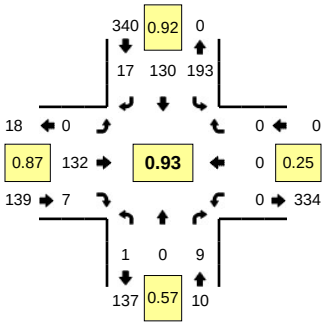
Method for determining peak hour: Total Entering Volume

LOCATION: A St -- Tuolumne St

QC JOB #: 10609126

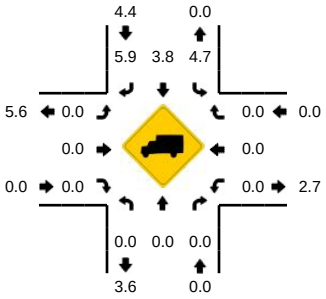
CITY/STATE: Fresno, CA

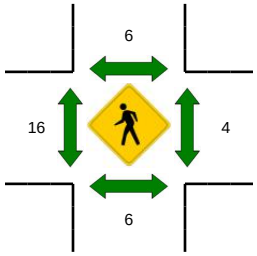
DATE: 4/27/2011



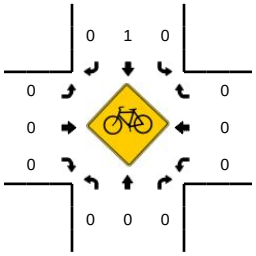
Peak-Hour: 4:20 PM -- 5:20 PM

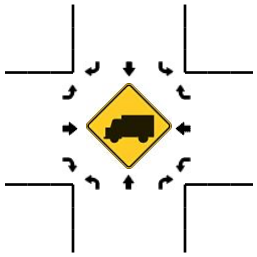
Peak 15-Min: 4:25 PM -- 4:40 PM



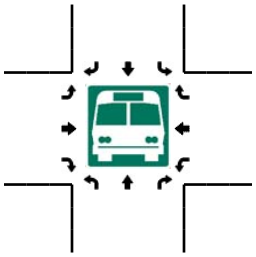












5-Min Count Period Beginning At	A St (Northbound)				A St (Southbound)				Tuolumne St (Eastbound)				Tuolumne St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	16	6	0	0	0	9	1	0	0	0	0	0	32	
4:05 PM	0	0	0	0	15	7	4	0	0	10	1	0	0	0	0	0	37	
4:10 PM	0	0	3	0	12	12	2	0	0	11	0	0	0	0	0	0	40	
4:15 PM	0	0	1	0	17	8	0	0	0	8	0	0	1	0	0	0	35	
4:20 PM	1	0	0	0	14	11	1	0	0	10	2	0	0	0	0	0	39	
4:25 PM	0	0	2	0	24	9	0	0	0	10	1	0	0	0	0	0	46	
4:30 PM	0	0	0	0	12	7	3	0	0	14	0	0	0	0	0	0	36	
4:35 PM	0	0	0	0	23	12	1	0	0	12	1	0	0	0	0	0	49	
4:40 PM	0	0	3	0	13	12	2	0	0	11	0	0	0	0	0	0	41	
4:45 PM	0	0	1	0	17	11	1	0	0	8	0	0	0	0	0	0	38	
4:50 PM	0	0	0	0	9	11	3	0	0	13	1	0	0	0	0	0	37	
4:55 PM	0	0	2	0	17	8	2	0	0	12	0	0	0	0	0	0	41	471
5:00 PM	0	0	0	0	19	15	1	0	0	13	1	0	0	0	0	0	49	488
5:05 PM	0	0	1	0	13	11	2	0	0	9	1	0	0	0	0	0	37	488
5:10 PM	0	0	0	0	15	16	1	0	0	6	0	0	0	0	0	0	38	486
5:15 PM	0	0	0	0	17	7	0	0	0	14	0	0	0	0	0	0	38	489
5:20 PM	0	0	1	0	11	10	0	0	0	10	0	0	0	0	0	0	32	482
5:25 PM	0	0	1	0	14	15	1	0	0	10	0	0	0	0	0	0	41	477
5:30 PM	0	0	1	0	11	10	2	0	0	16	1	0	0	0	0	0	41	482
5:35 PM	0	0	3	0	16	8	0	0	0	12	0	0	0	0	0	0	39	472
5:40 PM	0	0	2	0	16	6	1	0	0	7	0	0	0	0	0	0	32	463
5:45 PM	0	0	1	0	15	5	0	0	0	7	0	0	0	0	0	0	28	453
5:50 PM	0	0	4	0	11	6	0	0	0	11	1	0	0	0	0	0	33	449
5:55 PM	0	0	0	0	13	13	1	0	0	3	1	0	0	0	0	0	31	439

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	8	0	236	112	16	0	0	144	8	0	0	0	0	0	524
Heavy Trucks	0	0	0		8	8	0		0	0	0		0	0	0		16
Pedestrians		12				8				44				4			68
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

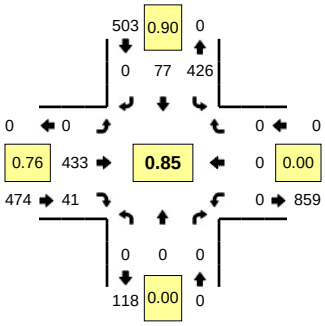
Method for determining peak hour: Total Entering Volume

LOCATION: SR 99 SB Frontage Rd -- Tuolumne St

QC JOB #: 10609127

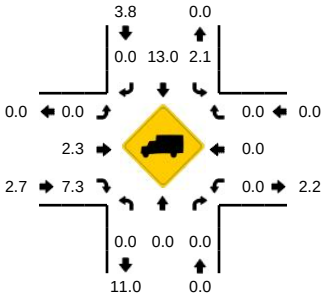
CITY/STATE: Fresno, CA

DATE: 4/27/2011

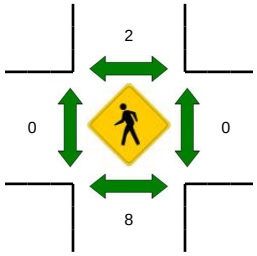


Peak-Hour: 7:20 AM -- 8:20 AM

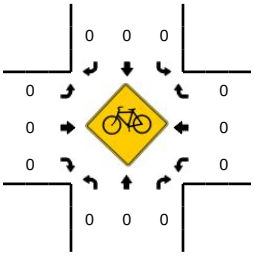
Peak 15-Min: 7:45 AM -- 8:00 AM

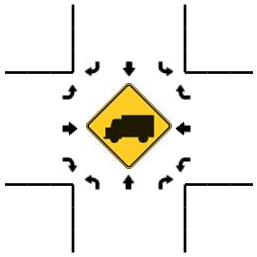




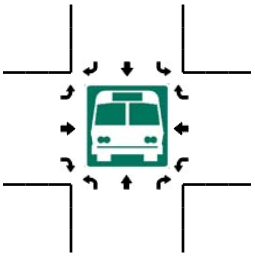












5-Min Count Period Beginning At	SR 99 SB Frontage Rd (Northbound)				SR 99 SB Frontage Rd (Southbound)				Tuolumne St (Eastbound)				Tuolumne St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	35	4	0	0	0	20	4	0	0	0	0	0	63	
7:05 AM	0	0	0	0	21	5	0	0	0	25	2	0	0	0	0	0	53	
7:10 AM	0	0	0	0	26	4	0	0	0	21	3	0	0	0	0	0	54	
7:15 AM	0	0	0	0	37	8	0	0	0	20	4	0	0	0	0	0	69	
7:20 AM	0	0	0	0	44	6	0	0	0	26	2	0	0	0	0	0	78	
7:25 AM	0	0	0	0	31	8	0	0	0	31	5	0	0	0	0	0	75	
7:30 AM	0	0	0	0	28	4	0	0	0	42	0	0	0	0	0	0	74	
7:35 AM	0	0	0	0	35	8	0	0	0	39	4	0	0	0	0	0	86	
7:40 AM	0	0	0	0	32	3	0	0	0	45	5	0	0	0	0	0	85	
7:45 AM	0	0	0	0	41	11	0	0	0	46	7	0	0	0	0	0	105	
7:50 AM	0	0	0	0	33	6	0	0	0	47	6	0	0	0	0	0	92	
7:55 AM	0	0	0	0	46	5	0	0	0	33	6	0	0	0	0	0	90	924
8:00 AM	0	0	0	0	40	11	0	0	0	36	1	0	0	0	0	0	88	949
8:05 AM	0	0	0	0	34	2	0	0	0	30	2	0	0	0	0	0	68	964
8:10 AM	0	0	0	0	29	9	0	0	0	26	2	0	0	0	0	0	66	976
8:15 AM	0	0	0	0	33	4	0	0	0	32	1	0	0	0	0	0	70	977
8:20 AM	0	0	0	0	40	6	0	0	0	25	2	0	0	0	0	0	73	972
8:25 AM	0	0	0	0	29	0	0	0	0	29	3	0	0	0	0	0	61	958
8:30 AM	0	0	0	0	25	2	0	0	0	25	3	0	0	0	0	0	55	939
8:35 AM	0	0	0	0	27	8	0	0	0	22	4	0	0	0	0	0	61	914
8:40 AM	0	0	0	0	23	12	0	0	0	23	4	0	0	0	0	0	62	891
8:45 AM	0	0	0	0	24	4	0	0	0	25	1	0	0	0	0	0	54	840
8:50 AM	0	0	0	0	23	6	0	0	0	26	0	0	0	0	0	0	55	803
8:55 AM	0	0	0	0	21	5	0	0	0	13	1	0	0	0	0	0	40	753

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	480	88	0	0	0	504	76	0	0	0	0	0	1148
Heavy Trucks	0	0	0		8	8	0		0	16	0		0	0	0		32
Pedestrians		12				0				0				0			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

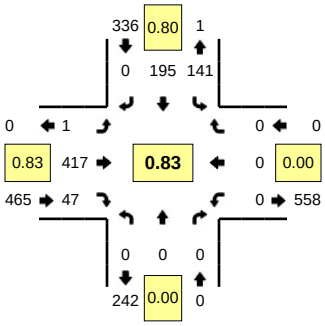
Method for determining peak hour: Total Entering Volume

LOCATION: SR 99 SB Frontage Rd -- Tuolumne St

QC JOB #: 10609128

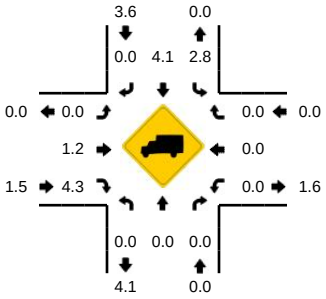
CITY/STATE: Fresno, CA

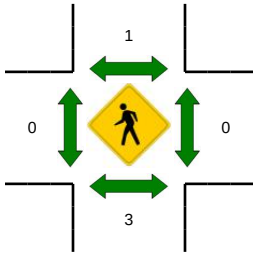
DATE: 4/27/2011



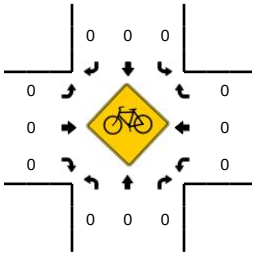
Peak-Hour: 4:25 PM -- 5:25 PM

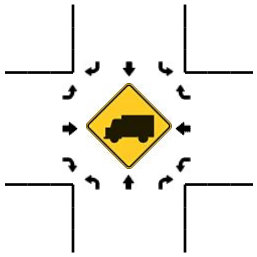
Peak 15-Min: 4:30 PM -- 4:45 PM



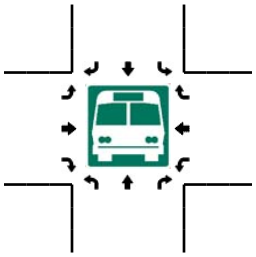












5-Min Count Period Beginning At	SR 99 SB Frontage Rd (Northbound)				SR 99 SB Frontage Rd (Southbound)				Tuolumne St (Eastbound)				Tuolumne St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	11	11	0	0	0	33	2	0	0	0	0	0	57	
4:05 PM	0	0	0	0	14	12	0	0	0	29	3	0	0	0	0	0	58	
4:10 PM	0	0	0	0	15	9	0	0	0	26	4	0	0	0	0	0	54	
4:15 PM	0	0	0	0	18	8	0	0	0	26	4	0	0	0	0	0	56	
4:20 PM	0	0	0	0	10	6	0	0	0	31	2	0	0	0	0	0	49	
4:25 PM	0	0	0	0	8	7	0	0	0	43	4	0	0	0	0	0	62	
4:30 PM	0	0	0	0	12	16	0	0	0	42	1	0	0	0	0	0	71	
4:35 PM	0	0	0	0	12	18	0	0	0	40	11	0	0	0	0	0	81	
4:40 PM	0	0	0	0	20	29	0	0	0	36	4	0	0	0	0	0	89	
4:45 PM	0	0	0	0	14	14	0	0	0	32	4	0	0	0	0	0	64	
4:50 PM	0	0	0	0	12	15	0	0	0	29	1	0	0	0	0	0	57	
4:55 PM	0	0	0	0	12	13	0	0	0	36	4	0	0	0	0	0	65	763
5:00 PM	0	0	0	0	9	22	0	0	0	33	5	0	0	0	0	0	69	775
5:05 PM	0	0	0	0	11	20	0	0	0	36	3	0	0	0	0	0	70	787
5:10 PM	0	0	0	0	13	14	0	0	0	28	3	0	0	0	0	0	58	791
5:15 PM	0	0	0	0	4	13	0	0	0	33	5	0	0	0	0	0	55	790
5:20 PM	0	0	0	0	14	14	0	0	1	29	2	0	0	0	0	0	60	801
5:25 PM	0	0	0	0	13	7	0	0	0	33	5	0	0	0	0	0	58	797
5:30 PM	0	0	0	0	11	8	0	0	0	31	0	0	0	0	0	0	50	776
5:35 PM	0	0	0	0	6	11	0	0	0	32	6	0	0	0	0	0	55	750
5:40 PM	0	0	0	0	5	7	0	0	0	26	2	0	0	0	0	0	40	701
5:45 PM	0	0	0	0	5	8	0	0	0	36	3	0	0	0	0	0	52	689
5:50 PM	0	0	0	0	8	5	0	0	0	25	2	0	0	0	0	0	40	672
5:55 PM	0	0	0	0	8	6	0	0	0	18	2	0	0	0	0	0	34	641

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	176	252	0	0	0	472	64	0	0	0	0	0	964
Heavy Trucks	0	0	0		8	8	0		0	4	0		0	0	0		20
Pedestrians		8				0				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

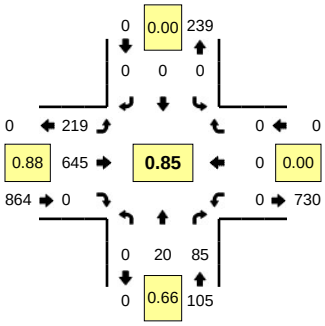
Method for determining peak hour: Total Entering Volume

LOCATION: SR 99 NB Frontage Rd -- Tuolumne St

QC JOB #: 10609129

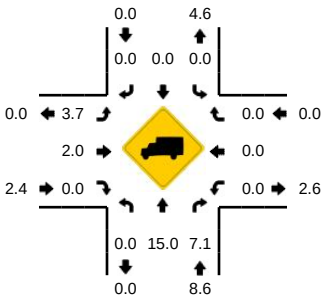
CITY/STATE: Fresno, CA

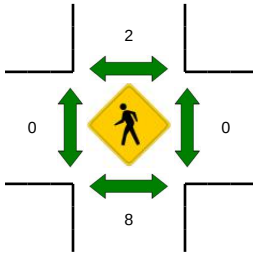
DATE: 4/27/2011



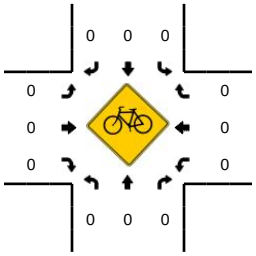
Peak-Hour: 7:20 AM -- 8:20 AM

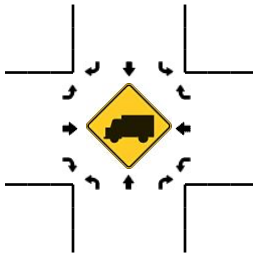
Peak 15-Min: 7:45 AM -- 8:00 AM



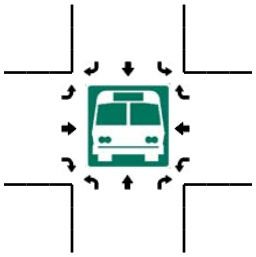












5-Min Count Period Beginning At	SR 99 NB Frontage Rd (Northbound)				SR 99 NB Frontage Rd (Southbound)				Tuolumne St (Eastbound)				Tuolumne St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	4	2	0	0	0	0	0	10	46	0	0	0	0	0	0	62	
7:05 AM	0	1	1	0	0	0	0	0	16	28	0	0	0	0	0	0	46	
7:10 AM	0	1	6	0	0	0	0	0	15	32	0	0	0	0	0	0	54	
7:15 AM	0	0	9	0	0	0	0	0	9	48	0	0	0	0	0	0	66	
7:20 AM	0	0	7	0	0	0	0	0	18	53	0	0	0	0	0	0	78	
7:25 AM	0	3	6	0	0	0	0	0	18	44	0	0	0	0	0	0	71	
7:30 AM	0	2	8	0	0	0	0	0	28	43	0	0	0	0	0	0	81	
7:35 AM	0	1	3	0	0	0	0	0	25	49	0	0	0	0	0	0	78	
7:40 AM	0	0	6	0	0	0	0	0	25	54	0	0	0	0	0	0	85	
7:45 AM	0	2	8	0	0	0	0	0	25	60	0	0	0	0	0	0	95	
7:50 AM	0	4	11	0	0	0	0	0	19	62	0	0	0	0	0	0	96	
7:55 AM	0	2	15	0	0	0	0	0	12	66	0	0	0	0	0	0	95	907
8:00 AM	0	0	6	0	0	0	0	0	14	64	0	0	0	0	0	0	84	929
8:05 AM	0	3	5	0	0	0	0	0	11	54	0	0	0	0	0	0	73	956
8:10 AM	0	2	3	0	0	0	0	0	11	44	0	0	0	0	0	0	60	962
8:15 AM	0	1	7	0	0	0	0	0	13	52	0	0	0	0	0	0	73	969
8:20 AM	0	1	10	0	0	0	0	0	11	54	0	0	0	0	0	0	76	967
8:25 AM	0	1	8	0	0	0	0	0	12	47	0	0	0	0	0	0	68	964
8:30 AM	0	1	7	0	0	0	0	0	11	39	0	0	0	0	0	0	58	941
8:35 AM	0	3	5	0	0	0	0	0	12	37	0	0	0	0	0	0	57	920
8:40 AM	0	0	4	0	0	0	0	0	12	34	0	0	0	0	0	0	50	885
8:45 AM	0	2	1	0	0	0	0	0	19	32	0	0	0	0	0	0	54	844
8:50 AM	0	4	7	0	0	0	0	0	14	33	0	0	0	0	0	0	58	806
8:55 AM	0	1	2	0	0	0	0	0	12	22	0	0	0	0	0	0	37	748

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	32	136	0	0	0	0	0	224	752	0	0	0	0	0	0	1144
Heavy Trucks	0	4	8		0	0	0		8	16	0		0	0	0		36
Pedestrians		12				0				0				0			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

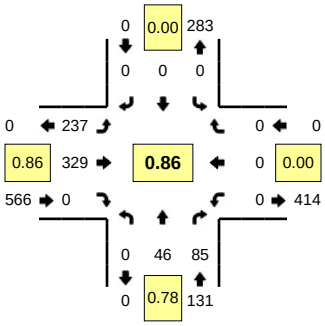
Method for determining peak hour: Total Entering Volume

LOCATION: SR 99 NB Frontage Rd -- Tuolumne St

QC JOB #: 10609130

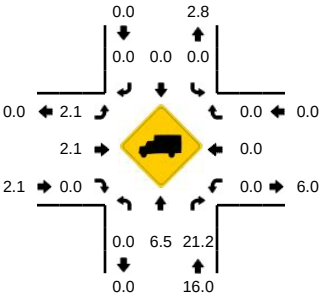
CITY/STATE: Fresno, CA

DATE: 4/27/2011

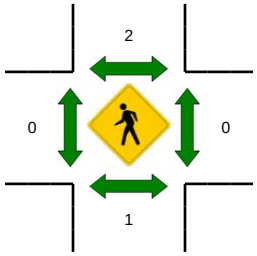


Peak-Hour: 4:00 PM -- 5:00 PM

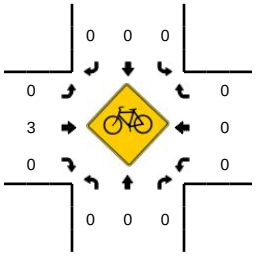
Peak 15-Min: 4:30 PM -- 4:45 PM

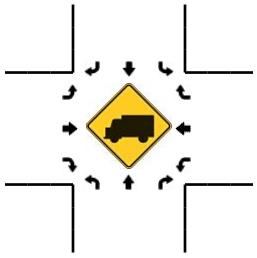




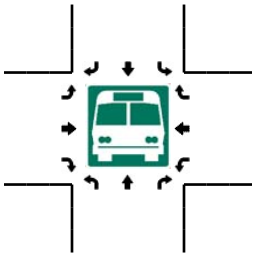












5-Min Count Period Beginning At	SR 99 NB Frontage Rd (Northbound)				SR 99 NB Frontage Rd (Southbound)				Tuolumne St (Eastbound)				Tuolumne St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	3	7	0	0	0	0	0	17	27	0	0	0	0	0	0	54	
4:05 PM	0	1	8	0	0	0	0	0	18	27	0	0	0	0	0	0	54	
4:10 PM	0	2	8	0	0	0	0	0	16	24	0	0	0	0	0	0	50	
4:15 PM	0	2	3	0	0	0	0	0	16	29	0	0	0	0	0	0	50	
4:20 PM	0	4	8	0	0	0	0	0	21	21	0	0	0	0	0	0	54	
4:25 PM	0	3	8	0	0	0	0	0	20	31	0	0	0	0	0	0	62	
4:30 PM	0	4	6	0	0	0	0	0	20	34	0	0	0	0	0	0	64	
4:35 PM	0	5	6	0	0	0	0	0	31	22	0	0	0	0	0	0	64	
4:40 PM	0	6	11	0	0	0	0	0	20	37	0	0	0	0	0	0	74	
4:45 PM	0	8	4	0	0	0	0	0	17	29	0	0	0	0	0	0	58	
4:50 PM	0	6	7	0	0	0	0	0	19	23	0	0	0	0	0	0	55	
4:55 PM	0	2	9	0	0	0	0	0	22	25	0	0	0	0	0	0	58	697
5:00 PM	0	4	6	0	0	0	0	0	15	28	0	0	0	0	0	0	53	696
5:05 PM	0	2	5	0	0	0	0	0	25	20	0	0	0	0	0	0	52	694
5:10 PM	0	1	5	0	0	0	0	0	15	27	0	0	0	0	0	0	48	692
5:15 PM	0	7	3	0	0	0	0	0	18	19	0	0	0	0	0	0	47	689
5:20 PM	0	4	6	0	0	0	0	0	26	19	0	0	0	0	0	0	55	690
5:25 PM	0	4	5	0	0	0	0	0	22	24	0	0	0	0	0	0	55	683
5:30 PM	0	6	1	0	0	0	0	0	21	21	0	0	0	0	0	0	49	668
5:35 PM	0	1	3	0	0	0	0	0	23	17	0	0	0	0	0	0	44	648
5:40 PM	0	6	2	0	0	0	0	0	16	15	0	0	0	0	0	0	39	613
5:45 PM	0	1	2	0	0	0	0	0	22	19	0	0	0	0	0	0	44	599
5:50 PM	0	1	0	0	0	0	0	0	15	18	0	0	0	0	0	0	34	578
5:55 PM	0	3	4	0	0	0	0	0	10	15	0	0	0	0	0	0	32	552

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	60	92	0	0	0	0	0	284	372	0	0	0	0	0	0	808
Heavy Trucks	0	0	24		0	0	0		0	12	0		0	0	0		36
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	2	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

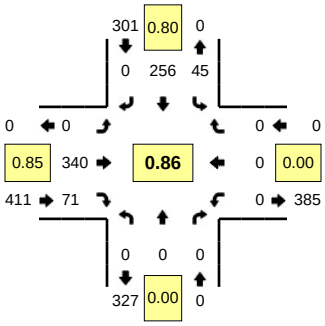
Method for determining peak hour: Total Entering Volume

LOCATION: M St -- Tuolumne St

QC JOB #: 10609131

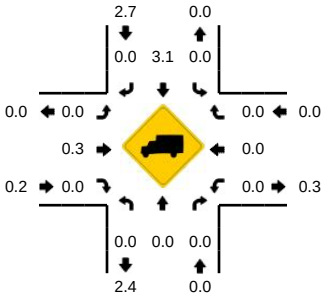
CITY/STATE: Fresno, CA

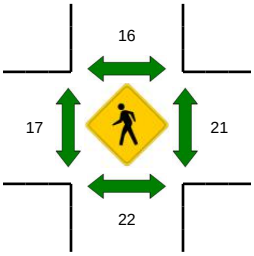
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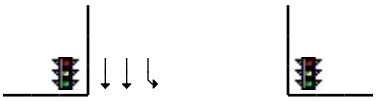


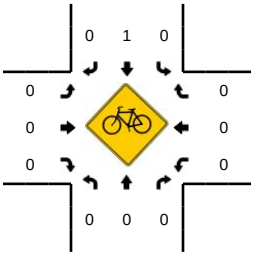
Peak-Hour: 7:25 AM -- 8:25 AM

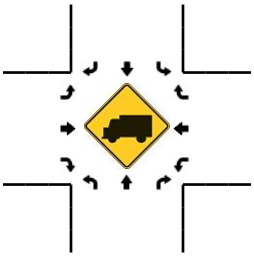
Peak 15-Min: 7:45 AM -- 8:00 AM



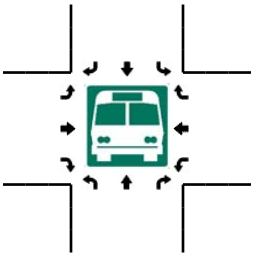












5-Min Count Period Beginning At	M St (Northbound)				M St (Southbound)				Tuolumne St (Eastbound)				Tuolumne St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	1	11	0	0	0	21	3	0	0	0	0	0	36	
7:05 AM	0	0	0	0	0	6	0	0	0	4	5	0	0	0	0	0	15	
7:10 AM	0	0	0	0	2	14	0	0	0	13	3	0	0	0	0	0	32	
7:15 AM	0	0	0	0	2	16	0	0	0	18	4	0	0	0	0	0	40	
7:20 AM	0	0	0	0	3	16	0	0	0	12	3	0	0	0	0	0	34	
7:25 AM	0	0	0	0	6	13	0	0	0	35	8	0	0	0	0	0	62	
7:30 AM	0	0	0	0	2	12	0	0	0	17	3	0	0	0	0	0	34	
7:35 AM	0	0	0	0	7	15	0	0	0	27	6	0	0	0	0	0	55	
7:40 AM	0	0	0	0	6	15	0	0	0	27	4	0	0	0	0	0	52	
7:45 AM	0	0	0	0	5	19	0	0	0	43	7	0	0	0	0	0	74	
7:50 AM	0	0	0	0	5	26	0	0	0	31	6	0	0	0	0	0	68	
7:55 AM	0	0	0	0	3	29	0	0	0	25	9	0	0	0	0	0	66	568
8:00 AM	0	0	0	0	2	30	0	0	0	30	9	0	0	0	0	0	71	603
8:05 AM	0	0	0	0	0	28	0	0	0	29	9	0	0	0	0	0	66	654
8:10 AM	0	0	0	0	3	25	0	0	0	18	3	0	0	0	0	0	49	671
8:15 AM	0	0	0	0	5	16	0	0	0	26	4	0	0	0	0	0	51	682
8:20 AM	0	0	0	0	1	28	0	0	0	32	3	0	0	0	0	0	64	712
8:25 AM	0	0	0	0	2	19	0	0	0	23	12	0	0	0	0	0	56	706
8:30 AM	0	0	0	0	0	12	0	0	0	18	3	0	0	0	0	0	33	705
8:35 AM	0	0	0	0	3	16	0	0	0	20	6	0	0	0	0	0	45	695
8:40 AM	0	0	0	0	0	14	0	0	0	16	5	0	0	0	0	0	35	678
8:45 AM	0	0	0	0	0	9	0	0	0	12	8	0	0	0	0	0	29	633
8:50 AM	0	0	0	0	2	13	0	0	0	14	6	0	0	0	0	0	35	600
8:55 AM	0	0	0	0	2	15	0	0	0	19	1	0	0	0	0	0	37	571

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	52	296	0	0	0	396	88	0	0	0	0	0	832
Heavy Trucks	0	0	0		0	8	0		0	4	0		0	0	0		12
Pedestrians		12				44				32				20			108
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

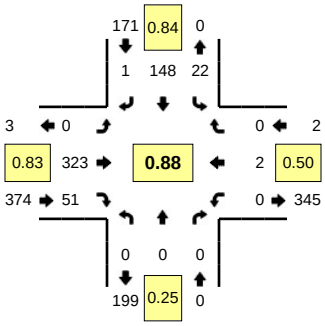
Method for determining peak hour: Total Entering Volume

LOCATION: M St -- Tuolumne St

QC JOB #: 10609132

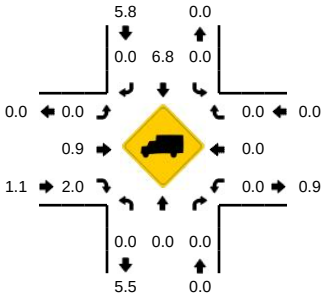
CITY/STATE: Fresno, CA

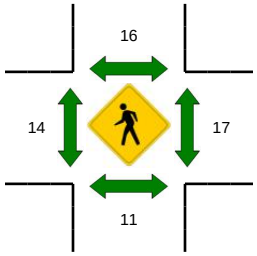
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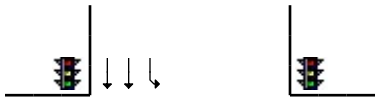


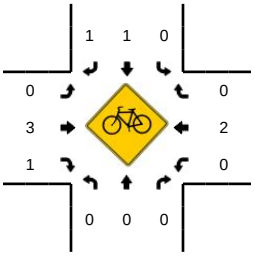
Peak-Hour: 4:15 PM -- 5:15 PM

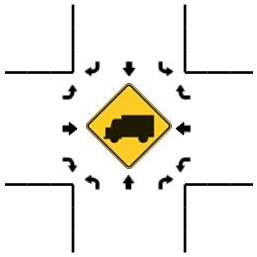
Peak 15-Min: 5:00 PM -- 5:15 PM



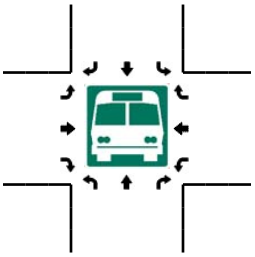












5-Min Count Period Beginning At	M St (Northbound)				M St (Southbound)				Tuolumne St (Eastbound)				Tuolumne St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	3	14	0	0	0	23	3	0	0	0	0	0	43	
4:05 PM	0	0	0	0	2	4	0	0	0	10	4	0	0	0	0	0	20	
4:10 PM	0	0	0	0	0	11	0	0	0	16	4	0	0	0	0	0	31	
4:15 PM	0	0	0	0	1	14	1	0	0	35	2	0	0	0	0	0	53	
4:20 PM	0	0	0	0	0	12	0	0	0	21	5	0	0	0	0	0	38	
4:25 PM	0	0	0	0	2	10	0	0	0	23	4	0	0	0	0	0	39	
4:30 PM	0	0	0	0	4	15	0	0	0	29	2	0	0	0	0	0	50	
4:35 PM	0	0	0	0	3	15	0	0	0	27	6	0	0	0	0	0	51	
4:40 PM	0	0	0	0	1	13	0	0	0	26	5	0	0	1	0	0	46	
4:45 PM	0	0	0	0	1	12	0	0	0	19	4	0	0	0	0	0	36	
4:50 PM	0	0	0	0	1	11	0	0	0	25	3	0	0	0	0	0	40	
4:55 PM	0	0	0	0	1	11	0	0	0	19	7	0	0	0	0	0	38	485
5:00 PM	0	0	0	0	3	10	0	0	0	29	7	0	0	0	0	0	49	491
5:05 PM	0	0	0	0	0	10	0	0	0	26	3	0	0	0	0	0	39	510
5:10 PM	0	0	0	0	5	15	0	0	0	44	3	0	0	1	0	0	68	547
5:15 PM	0	0	0	0	0	10	0	0	0	21	3	0	0	0	0	0	34	528
5:20 PM	0	0	0	0	0	6	0	0	0	27	3	0	0	0	0	0	36	526
5:25 PM	0	0	0	0	0	6	0	0	0	19	1	0	0	0	0	0	26	513
5:30 PM	0	0	0	0	1	7	0	0	0	19	4	0	0	0	0	0	31	494
5:35 PM	0	1	0	0	2	7	0	0	0	21	2	0	0	0	0	0	33	476
5:40 PM	0	0	0	0	1	4	0	0	0	9	3	0	0	1	0	0	18	448
5:45 PM	0	0	0	0	0	12	0	0	0	13	5	0	0	0	0	0	30	442
5:50 PM	0	0	0	0	0	3	0	0	0	15	1	0	0	0	0	0	19	421
5:55 PM	0	0	0	0	0	2	0	0	0	16	3	0	0	0	0	0	21	404

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	32	140	0	0	0	396	52	0	0	4	0	0	624
Heavy Trucks	0	0	0		0	8	0		0	0	0		0	0	0		8
Pedestrians		8				12				24				32			76
Bicycles	0	0	0		0	0	0		0	0	0		0	1	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

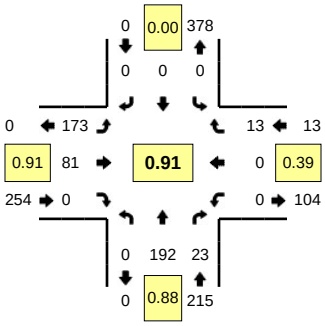
Method for determining peak hour: Total Entering Volume

LOCATION: P St -- Tuolumne St

QC JOB #: 10609133

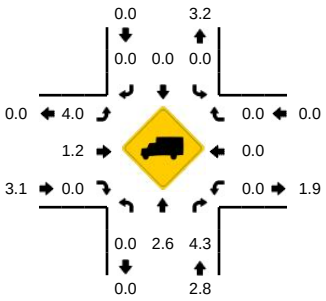
CITY/STATE: Fresno, CA

DATE: 4/27/2011

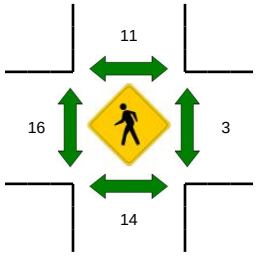


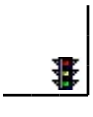
Peak-Hour: 7:40 AM -- 8:40 AM

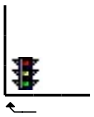
Peak 15-Min: 8:10 AM -- 8:25 AM

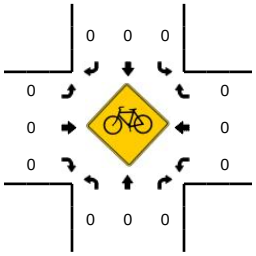


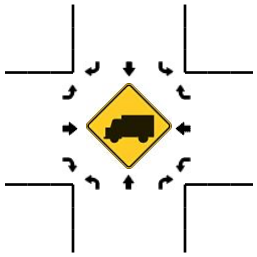


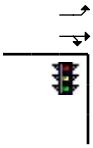


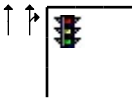


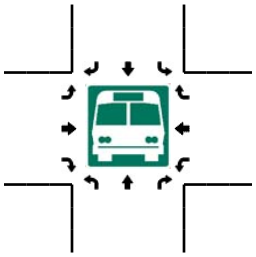












5-Min Count Period Beginning At	P St (Northbound)				P St (Southbound)				Tuolumne St (Eastbound)				Tuolumne St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	5	0	0	0	0	0	0	8	6	0	0	0	0	0	0	19	
7:05 AM	0	2	1	0	0	0	0	0	3	1	0	0	0	0	1	0	8	
7:10 AM	0	6	1	0	0	0	0	0	5	1	0	0	0	0	2	0	15	
7:15 AM	0	12	1	0	0	0	0	0	7	6	0	0	0	0	0	0	26	
7:20 AM	0	8	0	0	0	0	0	0	9	3	0	0	0	0	1	0	21	
7:25 AM	0	13	0	0	0	0	0	0	13	6	0	0	0	0	0	0	32	
7:30 AM	0	13	0	0	0	0	0	0	12	3	0	0	0	0	0	0	28	
7:35 AM	0	20	1	0	0	0	0	0	15	3	0	0	0	0	0	0	39	
7:40 AM	0	19	1	0	0	0	0	0	14	5	0	0	0	0	0	0	39	
7:45 AM	0	15	2	0	0	0	0	0	14	6	0	0	0	0	1	0	38	
7:50 AM	0	21	4	0	0	0	0	0	10	7	0	0	0	0	1	0	43	
7:55 AM	0	19	0	0	0	0	0	0	19	6	0	0	0	0	0	0	44	352
8:00 AM	0	16	3	0	0	0	0	0	16	7	0	0	0	0	0	0	42	375
8:05 AM	0	18	0	0	0	0	0	0	15	7	0	0	0	0	0	0	40	407
8:10 AM	0	14	3	0	0	0	0	0	11	6	0	0	0	0	5	0	39	431
8:15 AM	0	20	1	0	0	0	0	0	16	9	0	0	0	0	3	0	49	454
8:20 AM	0	13	5	0	0	0	0	0	16	10	0	0	0	0	1	0	45	478
8:25 AM	0	10	1	0	0	0	0	0	11	2	0	0	0	0	2	0	26	472
8:30 AM	0	14	0	0	0	0	0	0	18	4	0	0	0	0	0	0	36	480
8:35 AM	0	13	3	0	0	0	0	0	13	12	0	0	0	0	0	0	41	482
8:40 AM	0	17	2	0	0	0	0	0	13	3	0	0	0	0	1	0	36	479
8:45 AM	0	4	4	0	0	0	0	0	13	3	0	0	0	0	0	0	24	465
8:50 AM	0	17	1	0	0	0	0	0	14	6	0	0	0	0	0	0	38	460
8:55 AM	0	11	1	0	0	0	0	0	14	11	0	0	0	0	2	0	39	455

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	188	36	0	0	0	0	0	172	100	0	0	0	0	36	0	532
Heavy Trucks	0	4	4		0	0	0		0	0	0		0	0	0		8
Pedestrians		24				4				8				0			36
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

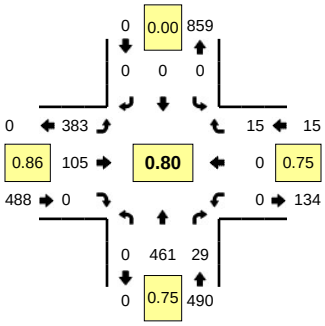
Method for determining peak hour: Total Entering Volume

LOCATION: P St -- Tuolumne St

QC JOB #: 10609134

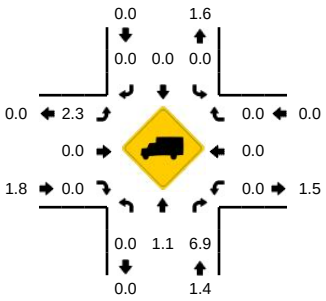
CITY/STATE: Fresno, CA

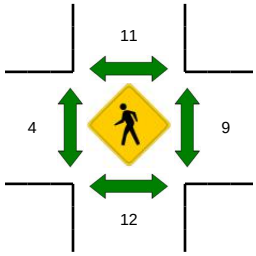
DATE: 4/27/2011



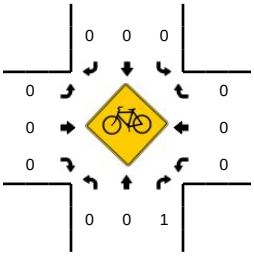
Peak-Hour: 4:25 PM -- 5:25 PM

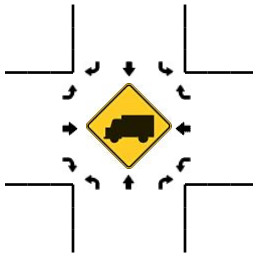
Peak 15-Min: 5:00 PM -- 5:15 PM

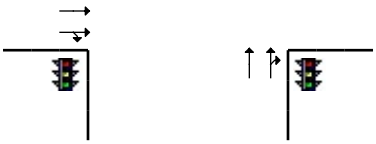


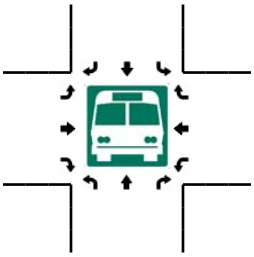












5-Min Count Period Beginning At	P St (Northbound)				P St (Southbound)				Tuolumne St (Eastbound)				Tuolumne St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	25	0	0	0	0	0	0	26	5	0	0	0	0	3	0	59	
4:05 PM	0	29	2	0	0	0	0	0	18	3	0	0	0	0	1	0	53	
4:10 PM	0	24	1	0	0	0	0	0	26	3	0	0	0	0	0	0	54	
4:15 PM	0	24	0	0	0	0	0	0	23	12	0	0	0	0	0	0	59	
4:20 PM	0	27	3	0	0	0	0	0	24	7	0	0	0	0	1	0	62	
4:25 PM	0	27	0	0	0	0	0	0	26	4	0	0	0	0	2	0	59	
4:30 PM	0	42	3	0	0	0	0	0	31	8	0	0	0	0	1	0	85	
4:35 PM	0	41	4	0	0	0	0	0	37	11	0	0	0	0	2	0	95	
4:40 PM	0	31	3	0	0	0	0	0	44	9	0	0	0	0	0	0	87	
4:45 PM	0	35	1	0	0	0	0	0	33	7	0	0	0	0	0	0	76	
4:50 PM	0	19	2	0	0	0	0	0	34	6	0	0	0	0	1	0	62	
4:55 PM	0	24	2	0	0	0	0	0	25	3	0	0	0	0	2	0	56	807
5:00 PM	0	50	3	0	0	0	0	0	40	7	0	0	0	0	1	0	101	849
5:05 PM	0	53	2	0	0	0	0	0	30	16	0	0	0	0	2	0	103	899
5:10 PM	0	49	5	0	0	0	0	0	35	17	0	0	0	0	1	0	107	952
5:15 PM	0	52	3	0	0	0	0	0	29	14	0	0	0	0	0	0	98	991
5:20 PM	0	38	1	0	0	0	0	0	19	3	0	0	0	0	3	0	64	993
5:25 PM	0	29	0	0	0	0	0	0	22	5	0	0	0	0	1	0	57	991
5:30 PM	0	23	0	0	0	0	0	0	28	4	0	0	0	0	1	0	56	962
5:35 PM	0	25	1	0	0	0	0	0	40	6	0	0	0	0	2	0	74	941
5:40 PM	0	17	2	0	0	0	0	0	13	2	0	0	0	0	0	0	34	888
5:45 PM	0	24	0	0	0	0	0	0	20	3	0	0	0	0	1	0	48	860
5:50 PM	0	10	0	0	0	0	0	0	12	4	0	0	0	0	1	0	27	825
5:55 PM	0	17	0	0	0	0	0	0	16	6	0	0	0	0	1	0	40	809

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	608	40	0	0	0	0	0	420	160	0	0	0	0	16	0	1244
Heavy Trucks	0	4	0		0	0	0		12	0	0		0	0	0		16
Pedestrians		16				12				12				12			52
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

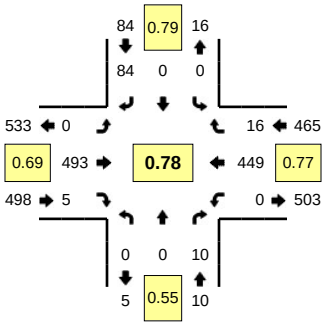
Method for determining peak hour: Total Entering Volume

LOCATION: A St -- Fresno St

QC JOB #: 10609135

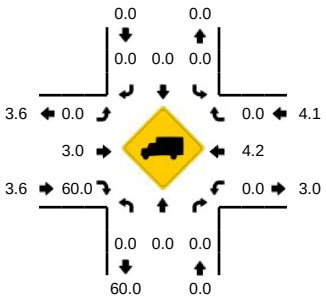
CITY/STATE: Fresno, CA

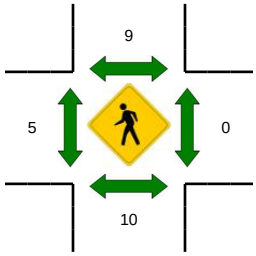
DATE: 4/27/2011

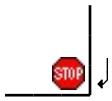


Peak-Hour: 7:25 AM -- 8:25 AM

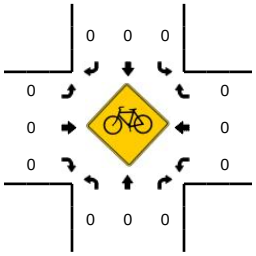
Peak 15-Min: 7:35 AM -- 7:50 AM

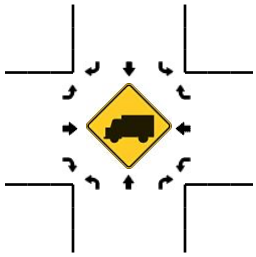


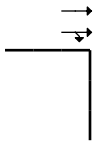


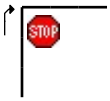


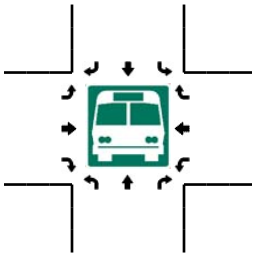












5-Min Count Period Beginning At	A St (Northbound)				A St (Southbound)				Fresno St (Eastbound)				Fresno St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	1	0	0	0	5	0	0	12	0	0	0	25	4	0	47	
7:05 AM	0	0	0	0	0	0	4	0	0	23	0	0	0	17	2	0	46	
7:10 AM	0	0	0	0	0	0	7	0	0	17	2	0	0	21	2	0	49	
7:15 AM	0	0	1	0	0	0	5	0	0	32	0	0	0	18	0	0	56	
7:20 AM	0	0	2	0	0	0	6	0	0	18	3	0	0	33	0	0	62	
7:25 AM	0	0	1	0	0	0	5	0	0	32	1	0	0	32	1	0	72	
7:30 AM	0	0	0	0	0	0	8	0	0	34	0	0	0	48	2	0	92	
7:35 AM	0	0	1	0	0	0	8	0	0	56	1	0	0	54	2	0	122	
7:40 AM	0	0	0	0	0	0	11	0	0	55	0	0	0	43	2	0	111	
7:45 AM	0	0	0	0	0	0	6	0	0	60	0	0	0	37	1	0	104	
7:50 AM	0	0	1	0	0	0	7	0	0	63	2	0	0	37	2	0	112	
7:55 AM	0	0	2	0	0	0	13	0	0	42	0	0	0	31	1	0	89	962
8:00 AM	0	0	2	0	0	0	8	0	0	31	0	0	0	34	2	0	77	992
8:05 AM	0	0	0	0	0	0	5	0	0	36	0	0	0	37	1	0	79	1025
8:10 AM	0	0	1	0	0	0	7	0	0	29	1	0	0	36	2	0	76	1052
8:15 AM	0	0	0	0	0	0	4	0	0	25	0	0	0	26	0	0	55	1051
8:20 AM	0	0	2	0	0	0	2	0	0	30	0	0	0	34	0	0	68	1057
8:25 AM	0	0	0	0	0	0	7	0	0	28	0	0	1	21	2	0	59	1044
8:30 AM	0	0	1	0	0	0	8	0	0	37	0	0	1	20	0	0	67	1019
8:35 AM	0	0	1	0	0	0	6	0	0	32	1	0	0	16	0	0	56	953
8:40 AM	0	0	0	0	0	0	8	0	0	28	0	0	0	20	0	0	56	898
8:45 AM	0	0	1	0	0	0	2	0	0	23	0	0	0	30	1	0	57	851
8:50 AM	0	0	1	0	0	0	5	0	0	28	0	0	0	14	0	0	48	787
8:55 AM	0	0	0	0	0	0	7	0	0	22	1	0	1	24	0	0	55	753

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	4	0	0	0	100	0	0	684	4	0	0	536	20	0	1348
Heavy Trucks	0	0	0		0	0	0		0	16	0		0	12	0		28
Pedestrians		12				8				12				0			32
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

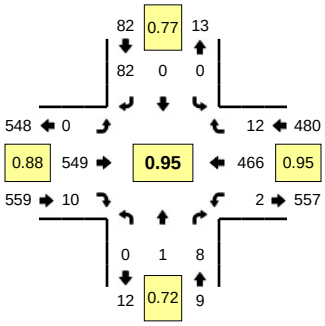
Method for determining peak hour: Total Entering Volume

LOCATION: A St -- Fresno St

QC JOB #: 10609136

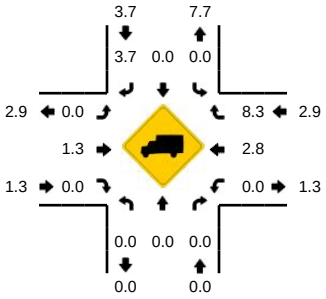
CITY/STATE: Fresno, CA

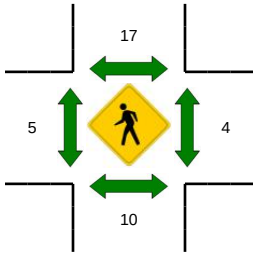
DATE: 4/27/2011

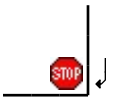


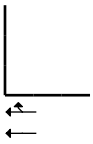
Peak-Hour: 4:00 PM -- 5:00 PM

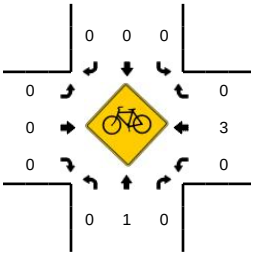
Peak 15-Min: 4:30 PM -- 4:45 PM

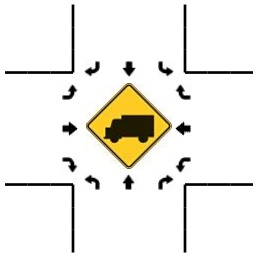


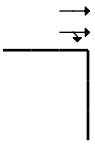


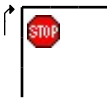


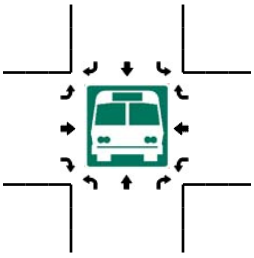












5-Min Count Period Beginning At	A St (Northbound)				A St (Southbound)				Fresno St (Eastbound)				Fresno St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	2	0	0	0	6	0	0	43	1	0	0	46	0	0	98	
4:05 PM	0	0	0	0	0	0	5	0	0	66	2	0	0	40	0	0	113	
4:10 PM	0	0	2	0	0	0	7	0	0	34	0	0	0	35	0	0	78	
4:15 PM	0	0	0	0	0	0	4	0	0	48	1	0	1	41	1	0	96	
4:20 PM	0	0	0	0	0	0	9	0	0	43	4	0	0	43	0	0	99	
4:25 PM	0	0	1	0	0	0	4	0	0	47	0	0	0	33	1	0	86	
4:30 PM	0	0	1	0	0	0	7	0	0	45	1	0	0	34	2	0	90	
4:35 PM	0	0	1	0	0	0	8	0	0	54	0	0	1	43	0	0	107	
4:40 PM	0	0	1	0	0	0	7	0	0	59	0	0	0	32	1	0	100	
4:45 PM	0	0	0	0	0	0	5	0	0	31	0	0	0	34	2	0	72	
4:50 PM	0	0	0	0	0	0	15	0	0	35	1	0	0	45	5	0	101	
4:55 PM	0	1	0	0	0	0	5	0	0	44	0	0	0	40	0	0	90	1130
5:00 PM	0	0	3	0	0	0	14	0	0	47	0	0	0	32	0	0	96	1128
5:05 PM	0	0	2	0	0	0	7	0	0	50	1	0	0	28	1	0	89	1104
5:10 PM	0	0	3	0	0	0	12	0	0	46	0	0	0	37	3	0	101	1127
5:15 PM	0	0	3	0	0	0	7	0	0	29	1	0	0	37	2	0	79	1110
5:20 PM	0	0	2	0	0	0	6	0	0	35	3	0	0	34	1	0	81	1092
5:25 PM	0	0	1	0	0	0	8	0	0	28	1	0	0	33	2	0	73	1079
5:30 PM	0	0	2	0	0	0	11	0	0	41	1	0	1	34	2	0	92	1081
5:35 PM	0	0	4	0	0	0	4	0	0	33	0	1	0	39	0	0	81	1055
5:40 PM	0	0	1	0	0	0	2	0	0	38	2	0	0	45	0	0	88	1043
5:45 PM	0	0	1	0	0	0	5	0	0	25	2	1	0	37	2	0	73	1044
5:50 PM	0	0	0	0	0	0	4	0	0	34	0	0	0	26	2	0	66	1009
5:55 PM	0	0	0	0	0	2	9	0	0	35	1	0	0	29	2	0	78	997

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	12	0	0	0	88	0	0	632	4	0	4	436	12	0	1188
Heavy Trucks	0	0	0		0	0	0		0	12	0		0	12	0		24
Pedestrians		16				16				0				12			44
Bicycles	0	0	0		0	0	0		0	0	0		0	1	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

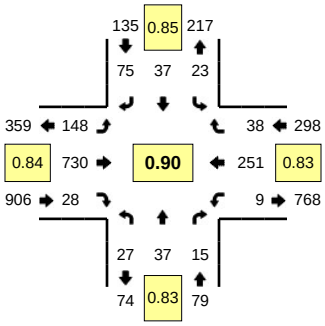
Method for determining peak hour: Total Entering Volume

LOCATION: E St -- Fresno St

QC JOB #: 10609137

CITY/STATE: Fresno, CA

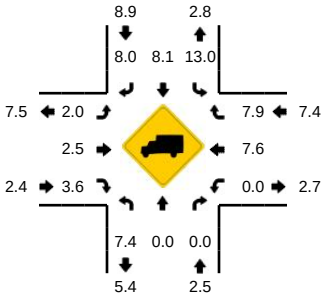
DATE: 4/27/2011

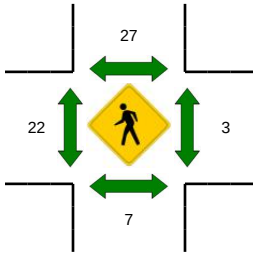


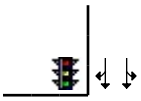
Peak-Hour: 7:35 AM -- 8:35 AM

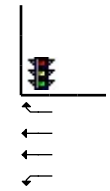
Peak 15-Min: 7:50 AM -- 8:05 AM

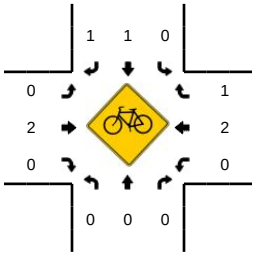


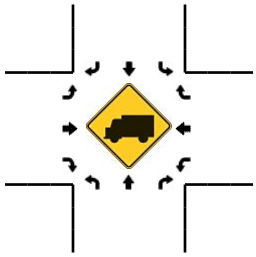


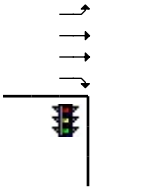


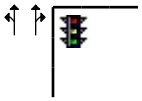


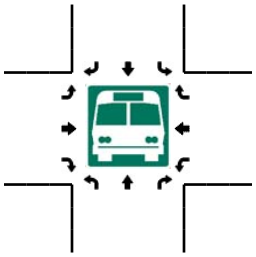












5-Min Count Period Beginning At	E St (Northbound)				E St (Southbound)				Fresno St (Eastbound)				Fresno St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	0	1	0	1	3	3	0	3	30	0	0	0	11	2	0	55	
7:05 AM	1	1	0	0	0	3	3	0	13	32	0	0	1	12	2	0	68	
7:10 AM	1	1	0	0	0	2	4	0	8	43	0	0	0	9	1	0	69	
7:15 AM	1	2	1	0	2	6	3	0	6	46	0	0	0	10	2	0	79	
7:20 AM	1	1	1	0	4	1	2	0	13	48	1	0	2	18	4	0	96	
7:25 AM	4	2	0	0	1	2	5	0	9	48	1	0	0	14	5	0	91	
7:30 AM	0	2	0	0	3	5	5	0	17	40	3	3	0	14	3	0	95	
7:35 AM	1	3	1	0	4	2	10	0	9	55	0	2	1	19	1	0	108	
7:40 AM	1	1	3	0	1	3	3	0	11	59	4	3	0	18	4	0	111	
7:45 AM	1	4	0	0	0	3	8	0	13	75	0	0	0	15	2	0	121	
7:50 AM	2	3	1	0	2	2	6	0	16	71	5	0	0	18	1	0	127	
7:55 AM	5	4	3	0	1	2	5	0	14	67	1	0	0	25	0	0	127	1147
8:00 AM	1	2	1	0	3	4	10	0	19	74	2	0	0	21	5	0	142	1234
8:05 AM	4	3	0	0	1	1	3	0	8	61	4	0	1	21	4	0	111	1277
8:10 AM	3	7	1	0	0	4	4	0	11	38	2	0	0	19	1	0	90	1298
8:15 AM	1	6	0	0	3	4	6	0	11	54	2	1	1	21	2	0	112	1331
8:20 AM	0	1	1	0	5	3	10	0	6	61	2	0	2	30	3	0	124	1359
8:25 AM	5	1	1	0	2	3	2	0	14	56	5	0	2	26	7	0	124	1392
8:30 AM	3	2	3	0	1	6	8	0	10	59	1	0	2	18	8	0	121	1418
8:35 AM	5	0	2	0	4	3	8	0	7	43	1	0	1	20	4	0	98	1408
8:40 AM	1	4	1	0	3	4	4	0	9	48	1	1	2	28	2	0	108	1405
8:45 AM	0	6	0	0	2	3	7	0	9	40	2	1	0	23	1	0	94	1378
8:50 AM	3	3	0	0	4	1	6	0	6	35	2	0	1	18	1	0	80	1331
8:55 AM	2	5	0	0	2	3	3	0	7	36	2	0	1	22	6	0	89	1293

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	36	20	0	24	32	84	0	196	848	32	0	0	256	24	0	1584
Heavy Trucks	0	0	0		4	4	12		0	20	0		0	20	4		64
Pedestrians		4				40				28				0			72
Bicycles	0	0	0		0	0	0		0	0	0		0	1	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

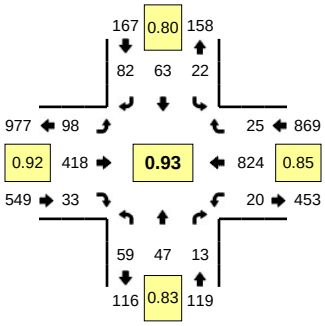
Method for determining peak hour: Total Entering Volume

LOCATION: E St -- Fresno St

QC JOB #: 10609138

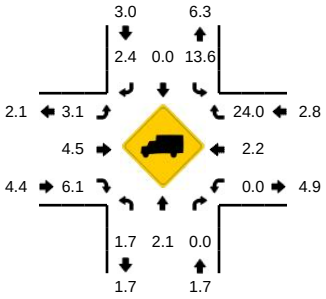
CITY/STATE: Fresno, CA

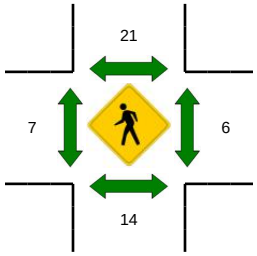
DATE: 4/27/2011

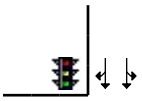


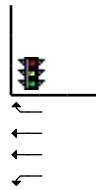
Peak-Hour: 4:20 PM -- 5:20 PM

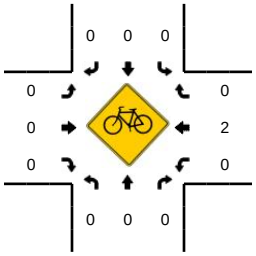
Peak 15-Min: 5:00 PM -- 5:15 PM

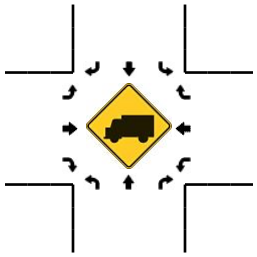


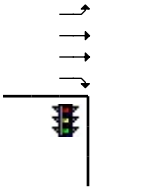


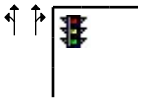


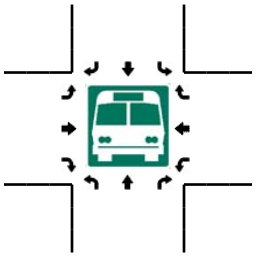












5-Min Count Period Beginning At	E St (Northbound)				E St (Southbound)				Fresno St (Eastbound)				Fresno St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	6	0	0	2	2	5	0	8	28	3	1	3	50	4	0	115	
4:05 PM	4	6	3	0	6	12	3	0	13	37	1	2	2	54	6	0	149	
4:10 PM	9	4	1	0	1	5	14	0	11	36	3	2	2	52	4	0	144	
4:15 PM	3	8	1	0	3	4	9	0	9	29	2	1	0	38	3	0	110	
4:20 PM	3	5	2	0	0	8	8	0	7	30	3	0	2	54	0	0	122	
4:25 PM	3	3	1	0	2	4	3	0	7	29	3	0	2	46	2	0	105	
4:30 PM	7	4	4	0	5	5	8	0	7	27	4	0	1	69	0	0	141	
4:35 PM	5	2	0	0	2	6	6	0	5	54	2	2	4	74	2	0	164	
4:40 PM	5	7	1	0	2	5	8	0	5	32	4	1	0	67	2	0	139	
4:45 PM	3	7	0	0	1	4	3	0	11	32	5	1	0	75	6	0	148	
4:50 PM	2	5	2	0	2	7	6	0	10	37	1	3	2	70	1	0	148	
4:55 PM	5	4	1	0	1	6	5	0	10	38	1	1	1	58	2	0	133	1618
5:00 PM	3	3	1	0	2	6	11	0	7	45	2	0	2	75	3	0	160	1663
5:05 PM	9	0	0	0	2	3	13	0	6	38	3	3	1	82	3	0	163	1677
5:10 PM	7	3	0	0	1	3	6	0	4	19	2	0	1	87	1	0	134	1667
5:15 PM	7	4	1	0	2	6	5	0	7	37	3	1	4	67	3	0	147	1704
5:20 PM	5	3	0	0	1	3	2	0	9	23	2	0	2	45	3	0	98	1680
5:25 PM	7	3	2	0	1	3	5	0	5	17	5	0	0	45	6	0	99	1674
5:30 PM	2	3	0	0	0	3	7	0	5	25	3	0	1	54	1	0	104	1637
5:35 PM	9	3	2	0	3	5	3	0	3	22	2	1	3	46	0	0	102	1575
5:40 PM	4	2	2	0	2	2	8	0	5	28	1	1	1	41	0	0	97	1533
5:45 PM	3	5	1	0	2	2	3	0	3	13	2	1	0	41	1	0	77	1462
5:50 PM	5	2	1	0	0	5	3	0	3	23	2	0	0	24	4	0	72	1386
5:55 PM	2	1	1	0	4	2	6	0	5	23	2	1	2	28	4	0	81	1334

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	76	24	4	0	20	48	120	0	68	408	28	12	16	976	28	0	1828
Heavy Trucks	0	0	0		0	0	0		0	28	0		0	24	8		60
Pedestrians		20				12				0				8			40
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

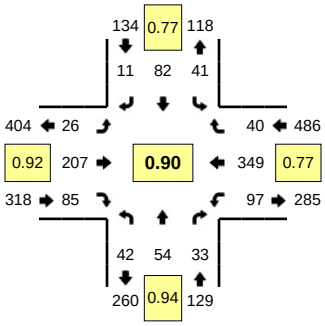
Method for determining peak hour: Total Entering Volume

LOCATION: O St -- Fresno St

QC JOB #: 10609139

CITY/STATE: Fresno, CA

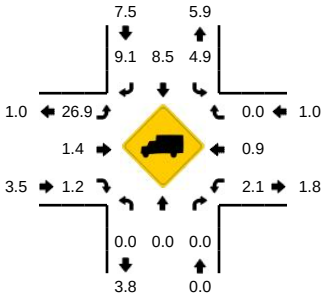
DATE: 4/27/2011

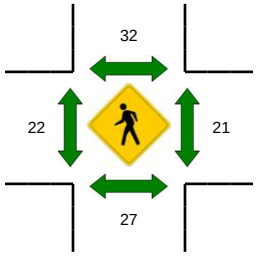


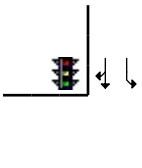
Peak-Hour: 7:40 AM -- 8:40 AM

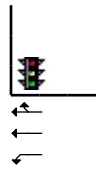
Peak 15-Min: 8:15 AM -- 8:30 AM

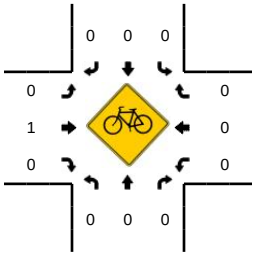


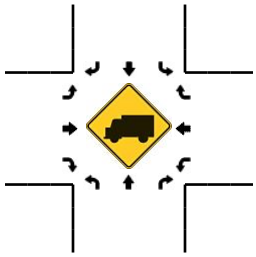


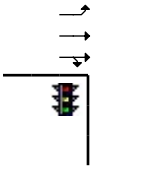




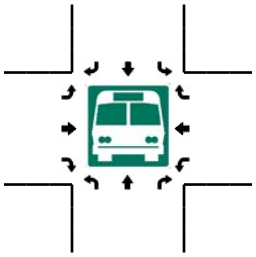












5-Min Count Period Beginning At	O St (Northbound)				O St (Southbound)				Fresno St (Eastbound)				Fresno St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	3	0	0	2	4	0	0	1	9	1	0	2	15	0	1	39	
7:05 AM	0	3	0	0	2	4	0	0	1	8	1	0	2	14	1	0	36	
7:10 AM	2	1	0	0	3	3	0	0	0	10	1	0	1	13	3	1	38	
7:15 AM	1	1	2	0	0	4	1	0	3	10	4	0	4	19	2	0	51	
7:20 AM	4	7	2	0	1	3	0	0	0	7	2	0	3	20	0	0	49	
7:25 AM	2	5	1	0	3	5	0	0	6	13	4	0	1	28	2	0	70	
7:30 AM	2	5	3	0	1	4	0	0	3	13	2	0	5	34	3	0	75	
7:35 AM	2	3	0	0	0	7	0	0	4	16	5	0	2	30	2	1	72	
7:40 AM	2	3	3	0	7	10	1	0	5	12	7	0	4	30	3	0	87	
7:45 AM	4	5	1	0	3	9	0	0	2	23	4	0	6	34	9	2	102	
7:50 AM	5	2	4	0	7	6	1	0	0	16	11	0	7	29	1	0	89	
7:55 AM	3	6	4	0	5	9	1	0	6	15	10	0	4	31	2	0	96	804
8:00 AM	3	7	2	0	3	9	0	0	0	15	9	0	6	29	6	0	89	854
8:05 AM	1	3	4	0	1	7	1	0	3	24	6	1	8	18	0	0	77	895
8:10 AM	4	8	1	0	5	5	4	0	3	20	3	0	5	9	1	0	68	925
8:15 AM	7	1	3	0	2	9	1	0	1	15	6	0	20	51	6	1	123	997
8:20 AM	4	7	1	0	4	5	1	0	0	14	7	0	7	26	3	0	79	1027
8:25 AM	3	5	4	0	1	6	1	0	3	20	9	0	9	33	0	1	95	1052
8:30 AM	2	1	4	0	1	3	0	0	0	20	5	1	7	33	4	0	81	1058
8:35 AM	4	6	2	0	2	4	0	0	1	13	8	0	10	26	5	0	81	1067
8:40 AM	3	8	1	0	1	3	2	0	2	24	6	0	5	15	3	1	74	1054
8:45 AM	5	2	4	0	2	2	2	0	4	24	4	0	14	33	4	0	100	1052
8:50 AM	6	2	4	0	1	4	1	0	5	10	5	0	2	34	3	0	77	1040
8:55 AM	3	7	2	0	1	5	0	0	3	23	2	0	2	32	1	2	83	1027

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	56	52	32	0	28	80	12	0	16	196	88	0	144	440	36	8	1188
Heavy Trucks	0	0	0		4	8	0		8	4	0		8	8	0		40
Pedestrians		48				32				20				12			112
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

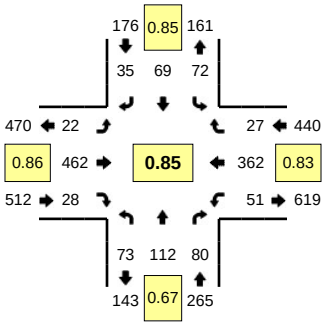
Method for determining peak hour: Total Entering Volume

LOCATION: O St -- Fresno St

QC JOB #: 10609140

CITY/STATE: Fresno, CA

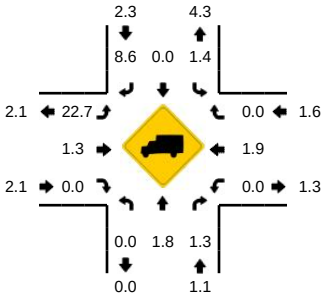
DATE: 4/27/2011

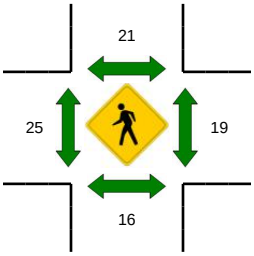


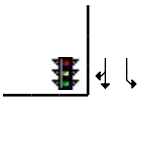
Peak-Hour: 4:25 PM -- 5:25 PM

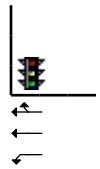
Peak 15-Min: 4:55 PM -- 5:10 PM

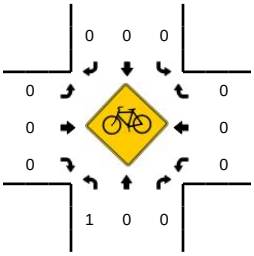


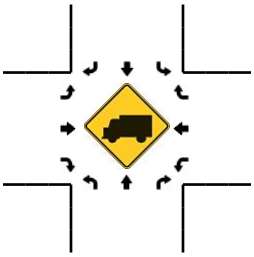


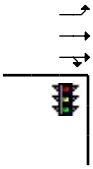


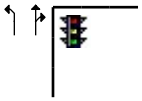


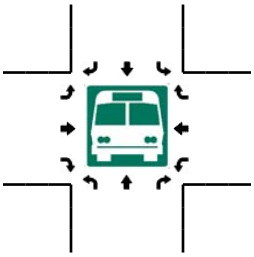












5-Min Count Period Beginning At	O St (Northbound)				O St (Southbound)				Fresno St (Eastbound)				Fresno St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	5	5	3	0	4	3	1	0	3	38	3	0	1	25	2	0	93	
4:05 PM	10	12	9	0	2	5	0	0	3	25	3	0	5	21	1	1	97	
4:10 PM	8	10	5	0	5	4	2	0	2	32	4	0	6	32	4	0	114	
4:15 PM	5	5	4	0	2	2	1	0	3	23	1	0	3	23	7	0	79	
4:20 PM	3	7	3	0	1	4	1	0	3	22	2	0	2	26	1	2	77	
4:25 PM	3	4	4	0	5	4	6	0	2	31	3	0	2	12	1	0	77	
4:30 PM	8	14	9	0	6	5	3	0	4	28	7	0	5	42	3	2	136	
4:35 PM	5	12	7	0	3	7	4	0	1	45	1	0	6	31	2	0	124	
4:40 PM	6	7	3	0	5	8	6	0	2	52	1	0	5	35	4	1	135	
4:45 PM	3	11	4	0	7	2	1	0	2	35	3	0	6	25	2	0	101	
4:50 PM	6	7	4	0	0	7	1	0	4	40	3	0	3	26	3	0	104	
4:55 PM	7	2	6	0	7	9	3	0	1	40	2	0	7	31	4	1	120	1257
5:00 PM	6	14	10	0	11	6	2	0	3	44	2	0	2	37	3	1	141	1305
5:05 PM	11	15	15	0	7	3	2	0	1	54	1	0	3	36	1	0	149	1357
5:10 PM	9	13	6	0	10	10	1	0	1	29	0	0	1	28	0	0	108	1351
5:15 PM	5	5	7	0	7	6	3	0	1	22	1	0	4	26	2	0	89	1361
5:20 PM	4	8	5	0	4	2	3	0	0	42	4	0	2	33	2	0	109	1393
5:25 PM	2	3	1	0	6	3	0	0	3	20	0	0	3	22	2	0	65	1381
5:30 PM	6	8	2	0	4	4	1	0	1	23	0	0	2	20	0	0	71	1316
5:35 PM	3	8	1	0	6	1	4	0	1	27	2	0	2	23	1	0	79	1271
5:40 PM	3	7	3	0	5	3	2	0	0	33	1	0	2	22	3	0	84	1220
5:45 PM	2	1	2	0	1	2	1	0	3	26	0	0	1	22	1	0	62	1181
5:50 PM	1	0	1	0	3	1	0	0	1	19	1	0	0	21	2	0	50	1127
5:55 PM	2	2	2	0	2	2	0	0	1	14	0	0	0	12	2	0	39	1046

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	96	124	124	0	100	72	28	0	20	552	20	0	48	416	32	8	1640
Heavy Trucks	0	0	0		0	0	0		8	8	0		0	4	0		20
Pedestrians		20				44				40				36			140
Bicycles	1	0	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

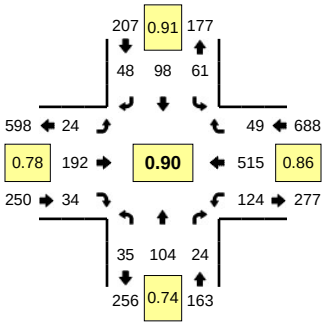
Method for determining peak hour: Total Entering Volume

LOCATION: O St -- Tulare St

QC JOB #: 10609141

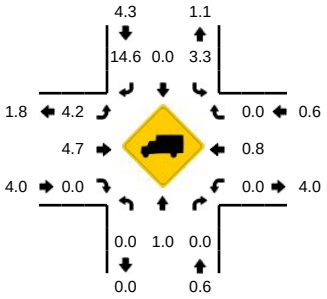
CITY/STATE: Fresno, CA

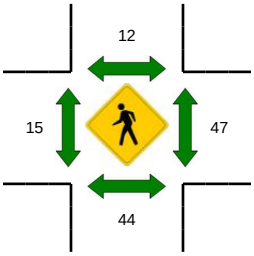
DATE: 4/27/2011

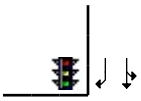


Peak-Hour: 7:40 AM -- 8:40 AM

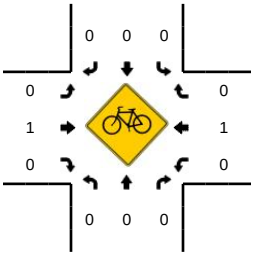
Peak 15-Min: 7:45 AM -- 8:00 AM

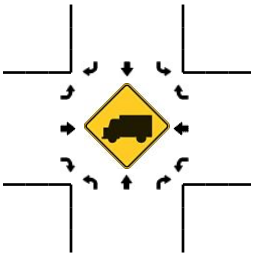


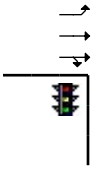


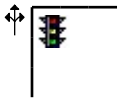


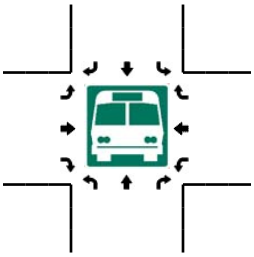












5-Min Count Period Beginning At	O St (Northbound)				O St (Southbound)				Tulare St (Eastbound)				Tulare St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	5	0	0	4	4	2	0	2	6	1	0	4	13	0	0	42	
7:05 AM	0	3	1	0	1	5	1	0	1	13	2	0	3	14	0	0	44	
7:10 AM	1	1	1	0	1	3	0	0	1	11	3	0	5	11	0	0	38	
7:15 AM	4	5	0	0	2	4	6	0	1	8	2	0	8	25	1	0	66	
7:20 AM	1	3	0	0	1	1	2	0	6	9	2	0	6	34	2	0	67	
7:25 AM	0	7	1	0	3	3	6	0	2	12	2	0	4	24	4	0	68	
7:30 AM	1	7	0	0	2	6	3	0	1	11	2	0	8	29	2	0	72	
7:35 AM	1	5	0	0	3	10	1	0	2	17	1	0	10	31	5	0	86	
7:40 AM	2	11	1	0	3	10	2	0	1	26	5	0	13	39	6	0	119	
7:45 AM	1	5	1	0	5	5	4	0	2	13	4	0	16	43	5	0	104	
7:50 AM	3	13	2	0	6	5	2	0	2	26	2	0	18	51	4	0	134	
7:55 AM	6	9	0	0	6	9	4	0	3	20	3	0	9	53	3	0	125	965
8:00 AM	5	6	2	0	4	14	3	0	1	14	4	0	11	34	6	0	104	1027
8:05 AM	0	6	2	0	5	12	3	0	3	11	0	0	1	47	3	0	93	1076
8:10 AM	4	9	1	0	2	6	0	0	3	15	1	0	9	44	3	0	97	1135
8:15 AM	0	9	1	0	10	7	6	0	2	14	2	0	3	41	6	0	101	1170
8:20 AM	3	13	2	0	6	5	6	0	2	11	2	0	12	37	2	0	101	1204
8:25 AM	4	9	3	0	8	10	2	0	1	12	3	0	11	51	6	0	120	1256
8:30 AM	6	7	8	0	3	5	6	0	1	19	5	0	14	40	5	0	119	1303
8:35 AM	1	7	1	0	3	10	10	0	3	11	3	0	7	35	0	0	91	1308
8:40 AM	1	2	4	0	3	11	5	0	2	15	3	0	13	34	2	0	95	1284
8:45 AM	1	5	1	0	3	6	6	0	1	10	5	0	6	23	3	0	70	1250
8:50 AM	2	9	1	0	3	11	5	0	0	16	4	0	3	25	4	0	83	1199
8:55 AM	4	2	1	0	6	3	3	0	0	16	3	0	6	32	2	0	78	1152

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	40	108	12	0	68	76	40	0	28	236	36	0	172	588	48	0	1452
Heavy Trucks	0	0	0		0	0	4		0	4	0		0	0	0		8
Pedestrians		28				20				20				56			124
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

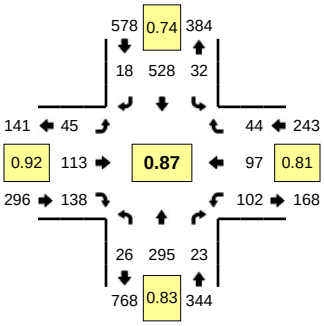
Method for determining peak hour: Total Entering Volume

LOCATION: O St -- Tulare St

QC JOB #: 10609142

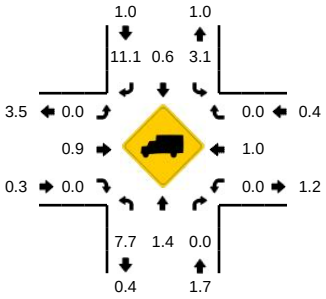
CITY/STATE: Fresno, CA

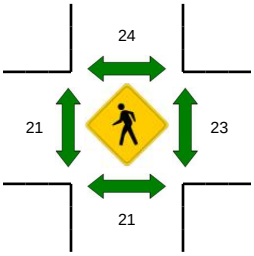
DATE: 4/27/2011

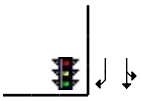


Peak-Hour: 4:20 PM -- 5:20 PM

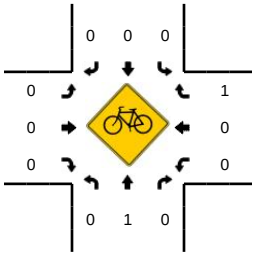
Peak 15-Min: 5:00 PM -- 5:15 PM

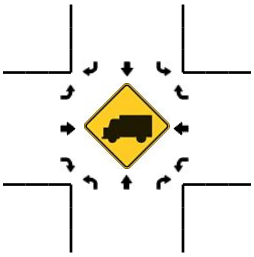


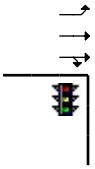


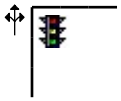


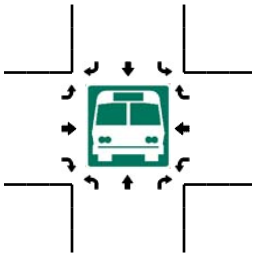












5-Min Count Period Beginning At	O St (Northbound)				O St (Southbound)				Tulare St (Eastbound)				Tulare St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	25	1	0	3	34	1	0	2	5	5	0	11	4	0	0	92	
4:05 PM	3	23	2	0	2	46	0	0	2	16	12	0	9	7	1	0	123	
4:10 PM	2	21	1	0	2	32	1	0	4	10	5	0	8	13	4	0	103	
4:15 PM	1	22	2	0	1	19	0	0	4	11	12	0	5	7	0	0	84	
4:20 PM	3	40	3	0	5	58	4	0	10	9	14	0	10	7	4	0	167	
4:25 PM	1	7	0	0	3	33	2	0	8	2	10	0	5	4	1	0	76	
4:30 PM	2	42	2	0	1	33	0	0	3	5	9	0	8	5	2	0	112	
4:35 PM	2	15	2	0	3	43	2	0	3	11	5	0	13	14	2	0	115	
4:40 PM	2	18	1	0	1	38	2	0	4	18	8	0	4	12	2	0	110	
4:45 PM	3	26	4	0	1	26	1	0	2	11	12	0	10	8	2	0	106	
4:50 PM	1	33	6	0	3	31	1	0	1	12	15	0	7	7	2	0	119	
4:55 PM	4	28	0	0	2	41	2	0	3	8	13	0	14	10	8	0	133	1340
5:00 PM	1	22	1	0	3	50	0	0	6	7	7	0	9	6	3	0	115	1363
5:05 PM	3	24	1	0	6	66	1	0	2	14	17	0	11	5	9	0	159	1399
5:10 PM	2	22	1	0	2	66	0	0	3	10	16	0	6	12	6	0	146	1442
5:15 PM	2	18	2	0	2	43	3	0	0	6	12	0	5	7	3	0	103	1461
5:20 PM	2	25	0	0	3	35	1	0	2	11	7	0	7	8	0	0	101	1395
5:25 PM	1	29	3	0	0	34	1	0	2	4	13	0	7	2	0	0	96	1415
5:30 PM	1	23	0	0	0	28	0	0	1	11	7	0	2	4	2	0	79	1382
5:35 PM	1	26	2	0	3	34	1	0	3	3	11	0	5	1	0	0	90	1357
5:40 PM	3	14	3	0	3	24	0	0	0	7	3	0	8	2	0	0	67	1314
5:45 PM	0	12	2	0	2	24	0	0	0	1	4	0	2	4	1	0	52	1260
5:50 PM	0	16	2	0	0	20	1	0	1	0	6	0	3	2	0	0	51	1192
5:55 PM	2	18	0	0	0	24	1	0	1	3	2	0	6	4	0	0	61	1120

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	272	12	0	44	728	4	0	44	124	160	0	104	92	72	0	1680
Heavy Trucks	0	4	0		4	0	0		0	0	0		0	4	0		12
Pedestrians		44				16				32				36			128
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

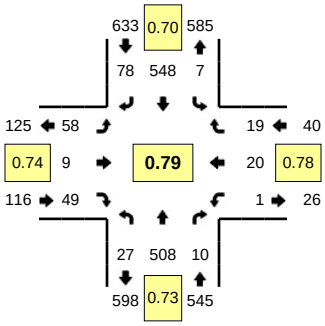
Method for determining peak hour: Total Entering Volume

LOCATION: C St -- Ventura St

QC JOB #: 10609143

CITY/STATE: Fresno, CA

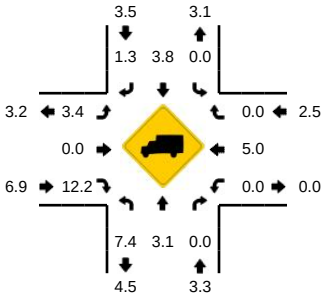
DATE: 4/27/2011

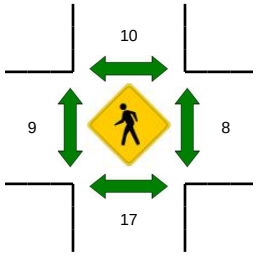


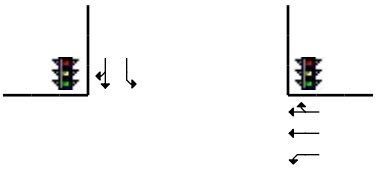
Peak-Hour: 7:10 AM -- 8:10 AM

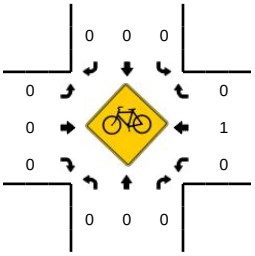
Peak 15-Min: 7:30 AM -- 7:45 AM

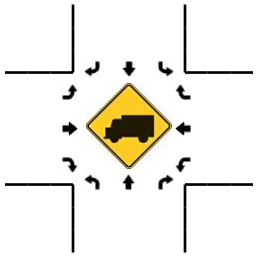


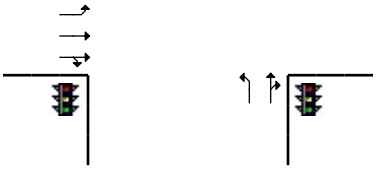


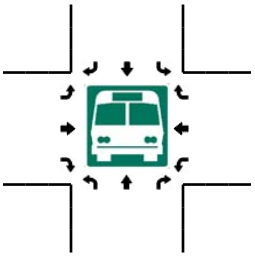












5-Min Count Period Beginning At	C St (Northbound)				C St (Southbound)				Ventura St (Eastbound)				Ventura St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	29	1	0	0	20	4	0	1	1	2	0	0	0	3	0	62	
7:05 AM	3	14	0	0	1	20	2	0	1	1	3	0	0	1	1	0	47	
7:10 AM	2	22	0	0	1	31	7	0	2	0	9	0	0	0	1	0	75	
7:15 AM	0	26	0	0	0	34	4	0	4	0	3	0	0	1	0	0	72	
7:20 AM	3	43	1	0	1	44	7	0	1	1	3	0	0	0	1	0	105	
7:25 AM	1	47	2	0	1	52	9	0	8	1	6	0	0	3	2	0	132	
7:30 AM	2	41	1	0	1	61	11	0	10	1	1	0	0	0	3	0	132	
7:35 AM	4	42	0	0	2	71	3	0	6	0	6	0	1	3	3	0	141	
7:40 AM	2	52	0	0	0	72	4	0	8	2	5	0	0	2	1	0	148	
7:45 AM	5	65	2	0	1	43	5	0	4	0	2	0	0	2	2	0	131	
7:50 AM	4	60	4	0	0	39	13	0	7	0	5	0	0	3	2	0	137	
7:55 AM	1	28	0	0	0	41	5	0	4	2	4	0	0	4	2	0	91	1273
8:00 AM	1	47	0	0	0	33	7	0	3	0	3	0	0	1	2	0	97	1308
8:05 AM	2	35	0	0	0	27	3	0	1	2	2	0	0	1	0	0	73	1334
8:10 AM	6	26	0	0	1	25	1	0	1	0	4	0	0	1	1	0	66	1325
8:15 AM	3	35	1	0	1	13	3	0	7	2	3	0	0	2	3	0	73	1326
8:20 AM	2	20	1	0	0	32	1	0	2	0	1	0	0	1	0	0	60	1281
8:25 AM	6	25	1	0	2	35	6	0	4	0	5	0	0	3	3	0	90	1239
8:30 AM	3	24	0	0	1	32	3	0	1	0	3	0	0	2	2	0	71	1178
8:35 AM	6	23	0	0	0	26	4	0	2	0	1	0	0	0	0	0	62	1099
8:40 AM	4	32	1	0	0	18	4	0	2	1	3	0	0	1	0	0	66	1017
8:45 AM	2	36	0	0	0	18	2	0	3	2	2	0	0	1	2	0	68	954
8:50 AM	2	33	0	0	2	26	3	0	3	3	4	0	0	0	2	0	78	895
8:55 AM	6	17	0	0	1	27	3	0	2	0	1	0	1	1	2	0	61	865

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	540	4	0	12	816	72	0	96	12	48	0	4	20	28	0	1684
Heavy Trucks	0	0	0		0	12	0		4	0	4		0	0	0		20
Pedestrians		8				8				8				0			24
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

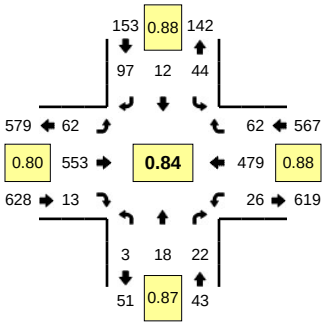
Method for determining peak hour: Total Entering Volume

LOCATION: C St -- Ventura St

QC JOB #: 10609144

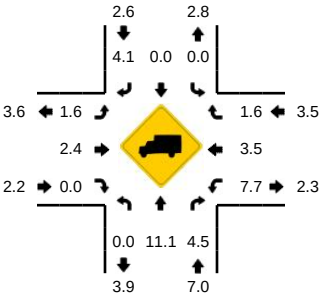
CITY/STATE: Fresno, CA

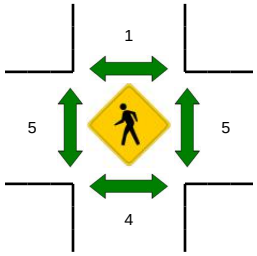
DATE: 4/27/2011

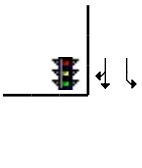


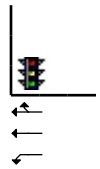
Peak-Hour: 4:05 PM -- 5:05 PM

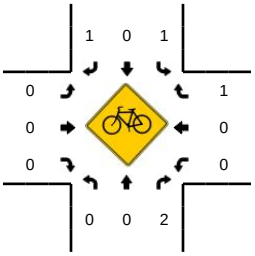
Peak 15-Min: 4:30 PM -- 4:45 PM

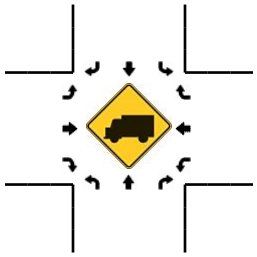


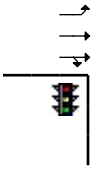


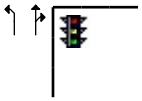


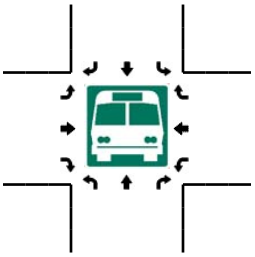












5-Min Count Period Beginning At	C St (Northbound)				C St (Southbound)				Ventura St (Eastbound)				Ventura St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	2	4	0	3	2	3	0	4	38	4	0	1	42	5	0	108	
4:05 PM	0	2	1	0	4	0	7	0	6	54	3	0	1	34	6	0	118	
4:10 PM	0	2	2	0	4	0	7	0	4	38	1	0	3	46	5	0	112	
4:15 PM	0	0	1	0	4	2	12	0	7	38	1	0	1	34	7	0	107	
4:20 PM	0	3	1	0	6	0	9	0	5	54	1	0	3	46	6	0	134	
4:25 PM	1	1	0	0	2	0	7	0	4	44	0	0	2	28	2	0	91	
4:30 PM	0	1	2	0	1	3	9	0	1	63	2	0	2	40	5	0	129	
4:35 PM	0	0	3	0	4	2	6	0	6	51	0	0	3	49	5	0	129	
4:40 PM	1	0	3	0	4	3	13	0	4	68	1	0	5	45	7	0	154	
4:45 PM	0	3	2	0	4	1	2	0	7	34	1	0	3	29	4	0	90	
4:50 PM	0	2	2	0	4	0	4	0	4	36	0	0	0	38	5	0	95	
4:55 PM	0	1	4	0	1	1	12	0	8	32	2	0	1	48	6	0	116	1383
5:00 PM	1	3	1	0	6	0	9	0	6	41	1	0	2	42	4	0	116	1391
5:05 PM	0	2	3	0	5	1	10	0	6	41	1	0	1	32	4	0	106	1379
5:10 PM	0	2	1	0	3	0	8	0	7	39	1	0	2	47	4	0	114	1381
5:15 PM	0	2	5	0	7	1	10	0	7	45	1	0	2	34	2	0	116	1390
5:20 PM	0	1	4	0	4	1	6	0	5	35	1	0	2	34	7	0	100	1356
5:25 PM	0	3	0	0	2	1	5	0	8	41	0	0	2	42	3	0	107	1372
5:30 PM	1	1	1	0	5	0	3	0	7	41	0	0	2	44	4	0	109	1352
5:35 PM	0	1	2	0	7	4	9	0	3	38	1	0	2	42	6	0	115	1338
5:40 PM	0	1	2	0	5	2	10	0	5	48	1	0	1	39	3	0	117	1301
5:45 PM	0	2	1	0	0	1	5	0	7	41	1	0	1	33	3	0	95	1306
5:50 PM	0	1	0	0	4	0	3	0	4	22	3	1	2	31	4	0	75	1286
5:55 PM	1	2	2	0	3	0	10	0	5	35	1	0	0	36	10	0	105	1275

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	4	32	0	36	32	112	0	44	728	12	0	40	536	68	0	1648
Heavy Trucks	0	0	0		0	0	0		0	24	0		0	8	0		32
Pedestrians		0				0				8				4			12
Bicycles	0	0	1		0	0	0		0	0	0		0	0	1		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

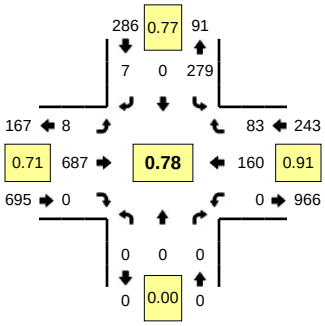
Method for determining peak hour: Total Entering Volume

LOCATION: Palm Ave -- H St

QC JOB #: 10609145

CITY/STATE: Fresno, CA

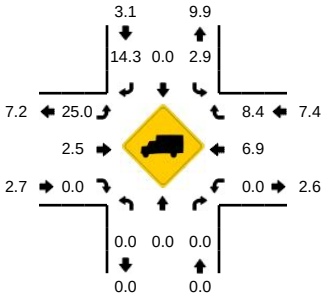
DATE: 4/27/2011

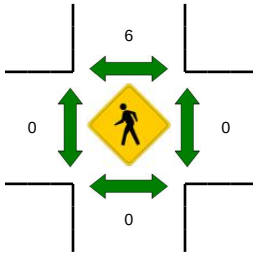


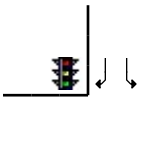
Peak-Hour: 7:25 AM -- 8:25 AM

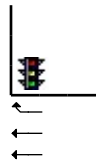
Peak 15-Min: 7:45 AM -- 8:00 AM

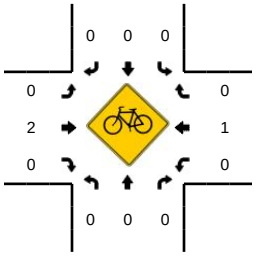


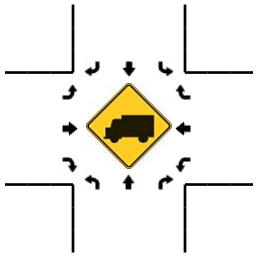


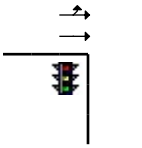




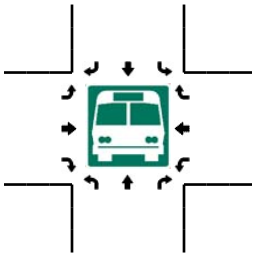












5-Min Count Period Beginning At	Palm Ave (Northbound)				Palm Ave (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	10	0	2	0	0	24	0	0	0	6	7	0	49	
7:05 AM	0	0	0	0	12	0	0	0	0	29	0	0	0	8	2	0	51	
7:10 AM	0	0	0	0	20	0	1	0	0	30	0	0	0	4	6	0	61	
7:15 AM	0	0	0	0	18	0	0	0	0	53	0	0	0	2	1	0	74	
7:20 AM	0	0	0	0	14	0	0	0	1	42	0	0	0	7	7	0	71	
7:25 AM	0	0	0	0	14	0	0	0	0	47	0	0	0	7	7	0	75	
7:30 AM	0	0	0	0	25	0	1	0	1	66	0	0	0	6	10	0	109	
7:35 AM	0	0	0	0	23	0	3	0	0	51	0	0	0	12	10	0	99	
7:40 AM	0	0	0	0	26	0	0	0	0	63	0	0	0	18	3	0	110	
7:45 AM	0	0	0	0	22	0	0	0	1	87	0	0	0	14	6	0	130	
7:50 AM	0	0	0	0	39	0	0	0	2	87	0	0	0	11	10	0	149	
7:55 AM	0	0	0	0	28	0	2	0	1	68	0	0	0	10	6	0	115	1093
8:00 AM	0	0	0	0	25	0	0	0	2	36	0	0	0	20	7	0	90	1134
8:05 AM	0	0	0	0	20	0	1	0	0	40	0	0	0	12	5	0	78	1161
8:10 AM	0	0	0	0	15	0	0	0	0	51	0	0	0	18	7	0	91	1191
8:15 AM	0	0	0	0	18	0	0	0	1	44	0	0	0	15	6	0	84	1201
8:20 AM	0	0	0	0	24	0	0	0	0	47	0	0	0	17	6	0	94	1224
8:25 AM	0	0	0	0	15	0	1	0	0	31	0	0	0	13	5	0	65	1214
8:30 AM	0	0	0	0	18	0	1	0	1	40	0	0	0	19	6	0	85	1190
8:35 AM	0	0	0	0	10	0	0	0	0	25	0	0	0	14	10	0	59	1150
8:40 AM	0	0	0	0	13	0	0	0	0	24	0	0	0	18	4	0	59	1099
8:45 AM	0	0	0	0	12	0	0	0	1	19	0	0	0	9	5	0	46	1015
8:50 AM	0	0	0	0	10	0	1	0	1	25	0	0	0	14	6	0	57	923
8:55 AM	0	0	0	0	8	0	1	0	0	22	0	0	0	6	7	0	44	852

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	356	0	8	0	16	968	0	0	0	140	88	0	1576
Heavy Trucks	0	0	0		8	0	0		8	0	0		0	12	8		36
Pedestrians		0				16				0				0			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

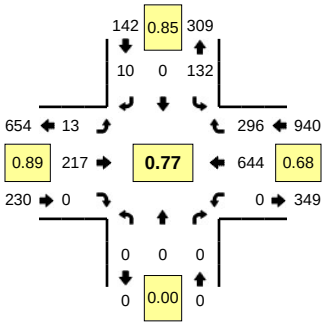
Method for determining peak hour: Total Entering Volume

LOCATION: Palm Ave -- H St

QC JOB #: 10609146

CITY/STATE: Fresno, CA

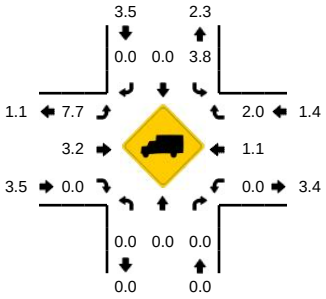
DATE: 4/27/2011

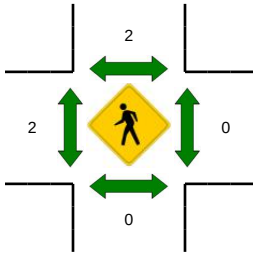


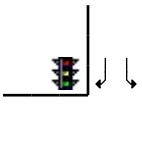
Peak-Hour: 4:30 PM -- 5:30 PM

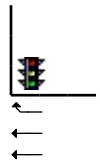
Peak 15-Min: 5:05 PM -- 5:20 PM

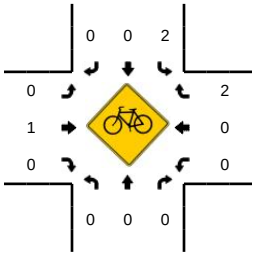


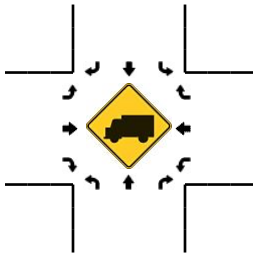


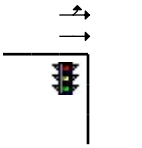




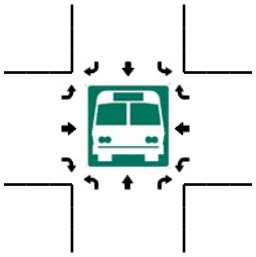












5-Min Count Period Beginning At	Palm Ave (Northbound)				Palm Ave (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	15	0	3	0	2	21	0	0	0	35	15	0	91	
4:05 PM	0	0	0	0	8	0	1	0	0	21	0	0	0	38	21	0	89	
4:10 PM	0	0	0	0	16	0	0	0	1	11	0	0	0	29	21	0	78	
4:15 PM	0	0	0	0	12	0	0	0	1	22	0	0	0	37	21	0	93	
4:20 PM	0	0	0	0	9	0	0	0	1	23	0	0	0	23	15	0	71	
4:25 PM	0	0	0	0	11	0	2	0	0	23	0	0	0	30	22	0	88	
4:30 PM	0	0	0	0	10	0	0	0	0	24	0	0	0	36	24	0	94	
4:35 PM	0	0	0	0	7	0	1	0	1	21	0	0	0	66	23	0	119	
4:40 PM	0	0	0	0	11	0	0	0	0	20	0	0	0	41	26	0	98	
4:45 PM	0	0	0	0	14	0	0	0	0	22	0	0	0	59	15	0	110	
4:50 PM	0	0	0	0	16	0	1	0	1	24	0	0	0	34	23	0	99	
4:55 PM	0	0	0	0	9	0	0	0	4	10	0	0	0	38	21	0	82	1112
5:00 PM	0	0	0	0	10	0	2	0	2	16	0	0	0	34	13	0	77	1098
5:05 PM	0	0	0	0	10	0	1	0	2	17	0	0	0	73	34	0	137	1146
5:10 PM	0	0	0	0	13	0	1	0	1	17	0	0	0	88	32	0	152	1220
5:15 PM	0	0	0	0	7	0	1	0	1	9	0	0	0	81	37	0	136	1263
5:20 PM	0	0	0	0	11	0	2	0	0	17	0	0	0	58	31	0	119	1311
5:25 PM	0	0	0	0	14	0	1	0	1	20	0	0	0	36	17	0	89	1312
5:30 PM	0	0	0	0	7	0	1	0	1	16	0	0	0	38	18	0	81	1299
5:35 PM	0	0	0	0	8	0	0	0	0	13	0	0	0	40	27	0	88	1268
5:40 PM	0	0	0	0	10	0	0	0	0	9	0	0	0	25	20	0	64	1234
5:45 PM	0	0	0	0	10	0	0	0	0	19	0	0	0	31	23	0	83	1207
5:50 PM	0	0	0	0	13	0	1	0	0	14	0	0	0	24	17	0	69	1177
5:55 PM	0	0	0	0	9	0	0	0	0	11	0	0	0	15	13	0	48	1143

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	120	0	12	0	16	172	0	0	0	968	412	0	1700
Heavy Trucks	0	0	0		8	0	0		4	0	0		0	4	4		20
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	1		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 5/9/2011 7:16 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

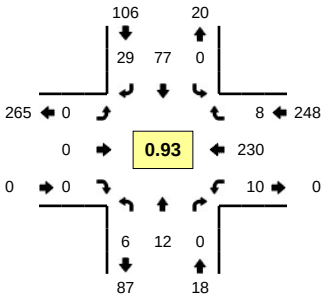
LOCATION: Fulton St -- Stanislaus St

QC JOB #: 10705101

CITY/STATE: Fresno, CA

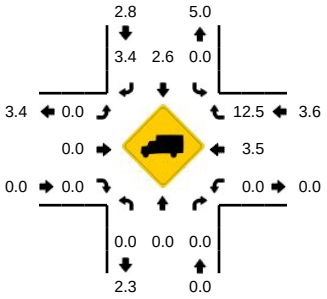
DATE: Thu, Jan 26 2012

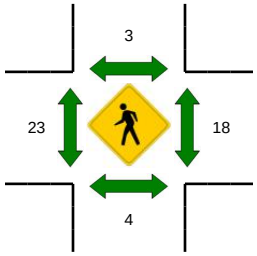
Peak-Hour: 7:55 AM -- 8:55 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

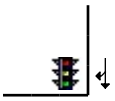


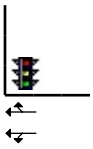


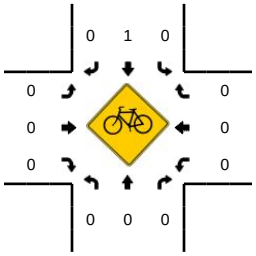
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

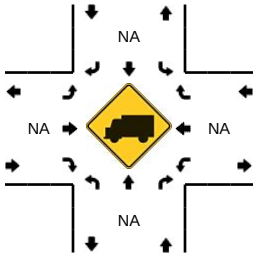






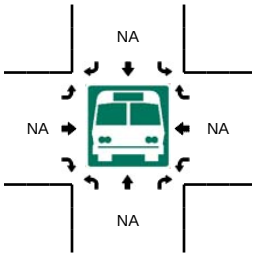












5-Min Count Period Beginning At	Fulton St (Northbound)				Fulton St (Southbound)				Stanislaus St (Eastbound)				Stanislaus St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	3	1	0	0	0	0	0	0	6	0	0	10	
7:05 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0	6	
7:10 AM	0	0	0	0	0	2	3	0	0	0	0	0	0	13	0	0	18	
7:15 AM	0	1	0	0	0	1	5	0	0	0	0	0	0	11	0	0	18	
7:20 AM	0	0	0	0	0	3	1	0	0	0	0	0	0	17	0	0	21	
7:25 AM	2	0	0	0	0	8	5	0	0	0	0	0	0	24	0	0	39	
7:30 AM	1	0	0	0	0	2	3	0	0	0	0	0	0	15	1	0	22	
7:35 AM	1	0	0	0	0	1	2	0	0	0	0	0	0	14	0	0	18	
7:40 AM	0	2	0	0	0	4	2	0	0	0	0	0	0	21	2	0	31	
7:45 AM	0	0	0	0	0	5	3	0	0	0	0	0	0	18	0	0	26	
7:50 AM	0	1	0	0	0	5	2	0	0	0	0	0	0	19	0	0	27	
7:55 AM	1	0	0	0	0	7	2	0	0	0	0	0	1	22	0	0	33	269
8:00 AM	0	2	0	0	0	7	4	0	0	0	0	0	0	19	0	0	32	291
8:05 AM	0	3	0	0	0	10	2	0	0	0	0	0	0	15	0	0	30	315
8:10 AM	1	1	0	0	0	3	5	0	0	0	0	0	3	24	1	0	38	335
8:15 AM	0	1	0	0	0	8	3	0	0	0	0	0	1	17	2	0	32	349
8:20 AM	2	0	0	0	0	5	2	0	0	0	0	0	1	18	1	0	29	357
8:25 AM	1	1	0	0	0	9	1	0	0	0	0	0	0	22	0	0	34	352
8:30 AM	0	1	0	0	0	4	0	0	0	0	0	0	0	21	0	0	26	356
8:35 AM	0	0	0	0	0	4	3	0	0	0	0	0	1	20	1	0	29	367
8:40 AM	1	1	0	0	0	11	2	0	0	0	0	0	0	14	1	0	30	366
8:45 AM	0	1	0	0	0	1	2	0	0	0	0	0	1	22	1	0	28	368
8:50 AM	0	1	0	0	0	8	3	0	0	0	0	0	2	16	1	0	31	372
8:55 AM	1	2	0	0	0	8	0	0	0	0	0	0	0	18	2	0	31	370

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	24	0	0	0	80	44	0	0	0	0	0	12	232	4	0	400
Heavy Trucks	0	0	0		0	4	0		0	0	0		0	4	0		8
Pedestrians		8				8				16				4			36
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 1/30/2012 5:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

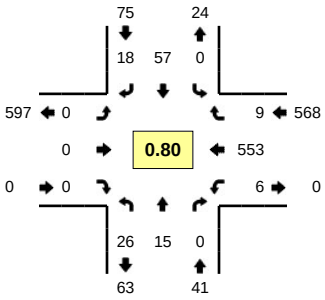
LOCATION: Fulton St -- Stanislaus St

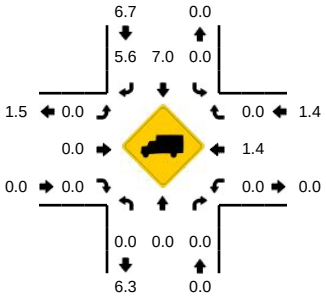
QC JOB #: 10705102

CITY/STATE: Fresno, CA

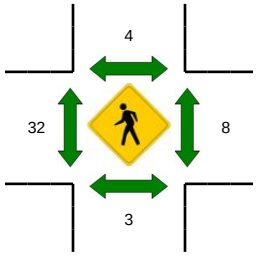
DATE: Thu, Jan 26 2012

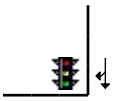
Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

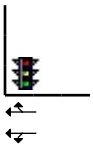


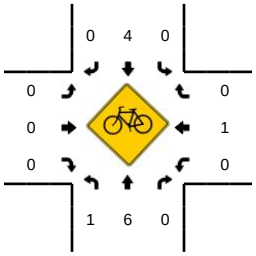


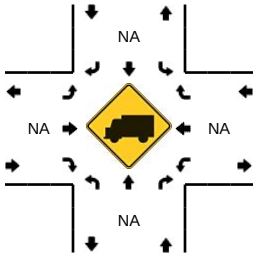
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES





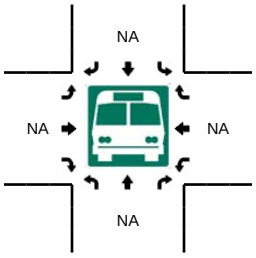












5-Min Count Period Beginning At	Fulton St (Northbound)				Fulton St (Southbound)				Stanislaus St (Eastbound)				Stanislaus St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	2	0	0	0	7	2	0	0	0	0	0	0	38	0	0	49	
4:05 PM	1	0	0	0	0	4	3	0	0	0	0	0	0	30	1	0	39	
4:10 PM	0	2	0	0	0	3	0	0	0	0	0	0	1	36	1	0	43	
4:15 PM	1	0	0	0	0	3	3	0	0	0	0	0	2	39	0	0	48	
4:20 PM	1	0	0	0	0	4	3	0	0	0	0	0	0	41	0	0	49	
4:25 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	29	0	0	32	
4:30 PM	0	0	0	0	0	5	1	0	0	0	0	0	0	33	1	0	40	
4:35 PM	0	3	0	0	0	8	2	0	0	0	0	0	1	49	0	0	63	
4:40 PM	1	0	0	0	0	7	0	0	0	0	0	0	0	64	3	0	75	
4:45 PM	0	0	0	0	0	3	2	0	0	0	0	0	0	49	1	0	55	
4:50 PM	1	1	0	0	0	7	2	0	0	0	0	0	2	41	0	0	54	
4:55 PM	2	0	0	0	0	6	1	0	0	0	0	0	0	36	0	0	45	592
5:00 PM	8	2	0	0	0	9	2	0	0	0	0	0	0	51	0	0	72	615
5:05 PM	6	2	0	0	0	2	1	0	0	0	0	0	2	55	1	0	69	645
5:10 PM	6	6	0	0	0	2	1	0	0	0	0	0	0	55	2	0	72	674
5:15 PM	1	1	0	0	0	1	1	0	0	0	0	0	1	45	1	0	51	677
5:20 PM	1	0	0	0	0	5	1	0	0	0	0	0	0	40	0	0	47	675
5:25 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	35	0	0	38	681
5:30 PM	0	0	0	0	0	4	5	0	0	0	0	0	0	33	1	0	43	684
5:35 PM	4	0	0	0	0	4	3	0	0	0	0	0	0	36	1	0	48	669
5:40 PM	1	2	0	0	0	1	1	0	0	0	0	0	1	33	2	0	41	635
5:45 PM	0	2	0	0	0	4	2	0	0	0	0	0	0	24	0	0	32	612
5:50 PM	0	2	0	0	0	1	1	0	0	0	0	0	0	15	2	0	21	579
5:55 PM	1	0	0	0	0	7	1	0	0	0	0	0	0	13	0	0	22	556

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	80	40	0	0	0	52	16	0	0	0	0	0	8	644	12	0	852
Heavy Trucks	0	0	0		0	4	0		0	0	0		0	8	0		12
Pedestrians		4				0				28				8			40
Bicycles	0	5	0		0	0	0		0	0	0		0	0	0		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 1/30/2012 5:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Fulton St -- Tuolumne St

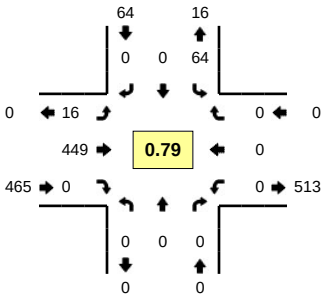
QC JOB #: 10705103

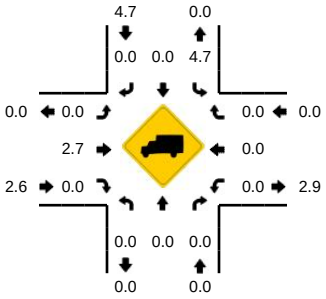
CITY/STATE: Fresno, CA

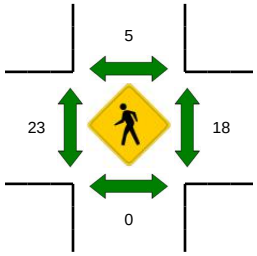
DATE: Thu, Jan 26 2012

Peak-Hour: 7:30 AM -- 8:30 AM

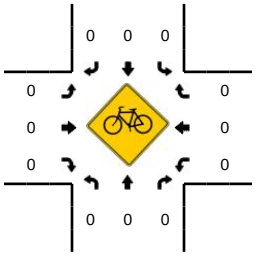
Peak 15-Min: 7:50 AM -- 8:05 AM

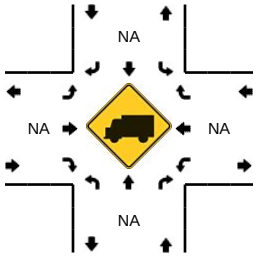




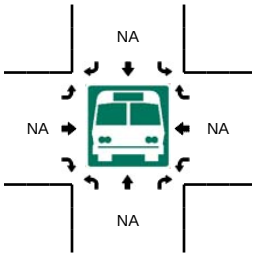












5-Min Count Period Beginning At	Fulton St (Northbound)				Fulton St (Southbound)				Tuolumne St (Eastbound)				Tuolumne St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	2	0	0	0	0	26	0	0	0	0	0	0	28	
7:05 AM	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	20	
7:10 AM	0	0	0	0	2	0	0	0	0	16	0	0	0	0	0	0	18	
7:15 AM	0	0	0	0	0	0	0	0	2	15	0	0	0	0	0	0	17	
7:20 AM	0	0	0	0	3	0	0	0	0	24	0	0	0	0	0	0	27	
7:25 AM	0	0	0	0	5	0	0	0	2	25	0	0	0	0	0	0	32	
7:30 AM	0	0	0	0	3	0	0	0	1	36	0	0	0	0	0	0	40	
7:35 AM	0	0	0	0	3	0	0	0	1	24	0	0	0	0	0	0	28	
7:40 AM	0	0	0	0	2	0	0	0	2	42	0	0	0	0	0	0	46	
7:45 AM	0	0	0	0	7	0	0	0	0	38	0	0	0	0	0	0	45	
7:50 AM	0	0	0	0	4	0	0	0	1	57	0	0	0	0	0	0	62	
7:55 AM	0	0	0	0	6	0	0	0	1	42	0	0	0	0	0	0	49	412
8:00 AM	0	0	0	0	6	0	0	0	2	48	0	0	0	0	0	0	56	440
8:05 AM	0	0	0	0	8	0	0	0	4	47	0	0	0	0	0	0	59	479
8:10 AM	0	0	0	0	6	0	0	0	1	26	0	0	0	0	0	0	33	494
8:15 AM	0	0	0	0	7	0	0	0	0	27	0	0	0	0	0	0	34	511
8:20 AM	0	0	0	0	3	0	0	0	1	32	0	0	0	0	0	0	36	520
8:25 AM	0	0	0	0	9	0	0	0	2	30	0	0	0	0	0	0	41	529
8:30 AM	0	0	0	0	3	0	0	0	1	28	0	0	0	0	0	0	32	521
8:35 AM	0	0	0	0	4	0	0	0	1	21	0	0	0	0	0	0	26	519
8:40 AM	0	0	0	0	10	0	0	0	1	32	0	0	0	0	0	0	43	516
8:45 AM	0	0	0	0	2	0	0	0	1	27	0	0	0	0	0	0	30	501
8:50 AM	0	0	0	0	3	0	0	0	1	29	0	0	0	0	0	0	33	472
8:55 AM	0	0	0	0	13	0	0	0	3	25	0	0	0	0	0	0	41	464

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	64	0	0	0	16	588	0	0	0	0	0	0	668
Heavy Trucks	0	0	0		0	0	0		0	16	0		0	0	0		16
Pedestrians		0				0				20				4			24
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 1/30/2012 5:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

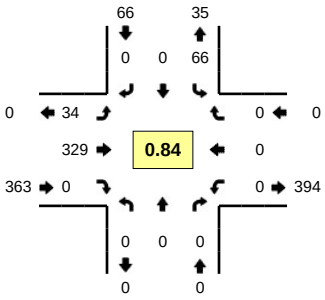
LOCATION: Fulton St -- Tuolumne St

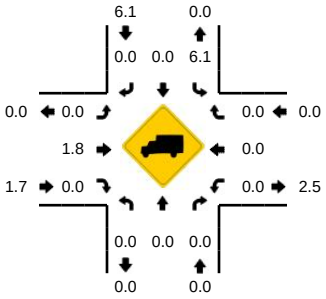
QC JOB #: 10705104

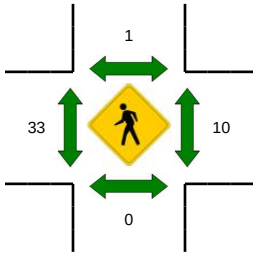
CITY/STATE: Fresno, CA

DATE: Thu, Jan 26 2012

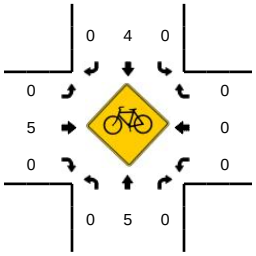
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 4:55 PM -- 5:10 PM

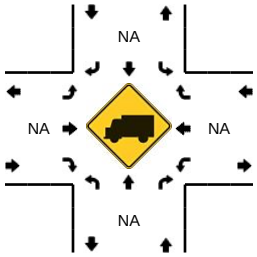




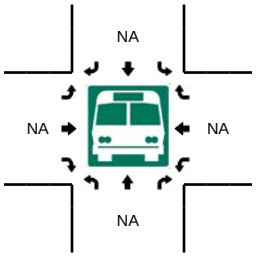












5-Min Count Period Beginning At	Fulton St (Northbound)				Fulton St (Southbound)				Tuolumne St (Eastbound)				Tuolumne St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	5	0	0	0	0	16	0	0	0	0	0	0	21	
4:05 PM	0	0	0	0	3	0	0	0	0	27	0	0	0	0	0	0	30	
4:10 PM	0	0	0	0	4	0	0	0	1	30	0	0	0	0	0	0	35	
4:15 PM	0	0	0	0	3	0	0	0	0	33	0	0	0	0	0	0	36	
4:20 PM	0	0	0	0	5	0	0	0	1	26	0	0	0	0	0	0	32	
4:25 PM	0	0	0	0	4	0	0	0	0	26	0	0	0	0	0	0	30	
4:30 PM	0	0	0	0	4	0	0	0	0	28	0	0	0	0	0	0	32	
4:35 PM	0	0	0	0	11	0	0	0	1	33	0	0	0	0	0	0	45	
4:40 PM	0	0	0	0	7	0	0	0	0	23	0	0	0	0	0	0	30	
4:45 PM	0	0	0	0	3	0	0	0	0	17	0	0	0	0	0	0	20	
4:50 PM	0	0	0	0	5	0	0	0	2	32	0	0	0	0	0	0	39	
4:55 PM	0	0	0	0	11	0	0	1	3	24	0	0	0	0	0	0	39	389
5:00 PM	0	0	0	0	3	0	0	0	7	23	0	0	0	0	0	0	33	401
5:05 PM	0	0	0	0	6	0	0	0	10	39	0	0	0	0	0	0	55	426
5:10 PM	0	0	0	0	4	0	0	0	8	25	0	0	0	0	0	0	37	428
5:15 PM	0	0	0	0	1	0	0	0	2	26	0	0	0	0	0	0	29	421
5:20 PM	0	0	0	0	5	0	0	0	1	28	0	0	0	0	0	0	34	423
5:25 PM	0	0	0	0	5	0	0	0	0	31	0	0	0	0	0	0	36	429
5:30 PM	0	0	0	0	2	0	0	0	0	21	0	0	0	0	0	0	23	420
5:35 PM	0	0	0	0	4	0	0	0	3	27	0	0	0	0	0	0	34	409
5:40 PM	0	0	0	0	2	0	0	0	3	16	0	0	0	0	0	0	21	400
5:45 PM	0	0	0	0	4	0	0	0	2	24	0	0	0	0	0	0	30	410
5:50 PM	0	0	0	0	2	0	0	0	1	16	0	0	0	0	0	0	19	390
5:55 PM	0	0	0	0	5	0	0	0	1	14	0	0	0	0	0	0	20	371

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	80	0	0	4	80	344	0	0	0	0	0	0	508
Heavy Trucks	0	0	0		4	0	0		0	4	0		0	0	0		8
Pedestrians		0				0				32				16			48
Bicycles	0	4	0		0	0	0		0	4	0		0	0	0		8
Railroad																	
Stopped Buses																	

Comments:

Report generated on 1/30/2012 5:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Fulton St -- Inyo St

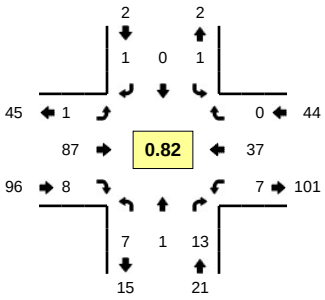
QC JOB #: 10705105

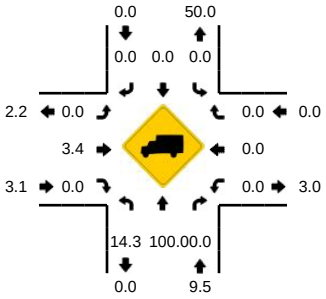
CITY/STATE: Fresno, CA

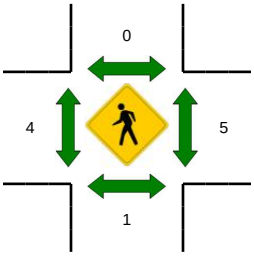
DATE: Thu, Jan 26 2012

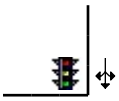
Peak-Hour: 7:50 AM -- 8:50 AM

Peak 15-Min: 7:50 AM -- 8:05 AM

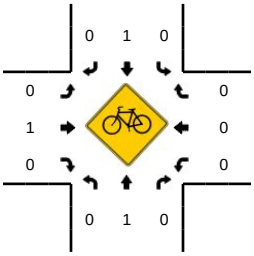


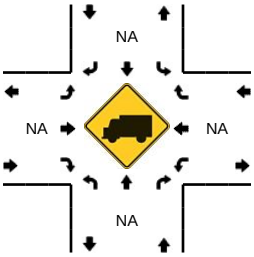


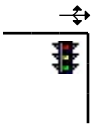




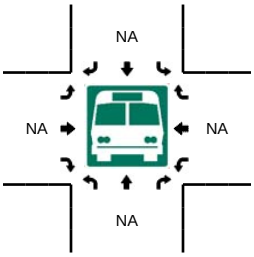












5-Min Count Period Beginning At	Fulton St (Northbound)				Fulton St (Southbound)				Inyo St (Eastbound)				Inyo St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	4	
7:05 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	
7:10 AM	0	0	1	0	0	0	0	0	0	2	0	0	0	1	1	0	5	
7:15 AM	0	0	0	0	1	0	0	0	0	3	0	0	0	1	0	0	5	
7:20 AM	0	0	2	0	0	0	0	0	0	7	0	0	0	1	0	0	10	
7:25 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4	
7:30 AM	1	0	0	0	0	0	1	0	0	11	0	0	0	1	0	0	14	
7:35 AM	0	0	1	0	0	0	0	0	0	2	0	0	0	4	0	0	7	
7:40 AM	0	0	1	0	0	0	1	0	0	7	1	0	0	0	0	0	10	
7:45 AM	1	0	0	0	0	0	0	0	0	10	0	0	0	2	0	0	13	
7:50 AM	1	0	0	0	0	0	0	0	0	9	0	0	0	3	0	0	13	
7:55 AM	1	0	1	0	0	0	0	0	0	17	1	0	1	1	0	0	22	109
8:00 AM	1	0	1	0	0	0	0	0	0	10	0	0	0	3	0	0	15	120
8:05 AM	0	0	1	0	0	0	0	0	0	6	0	0	3	1	0	0	11	129
8:10 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	5	0	0	11	135
8:15 AM	0	0	1	0	0	0	0	0	0	9	2	0	0	2	0	0	14	144
8:20 AM	1	0	2	0	0	0	0	0	0	11	2	0	1	1	0	0	18	152
8:25 AM	0	1	1	0	0	0	0	0	0	7	0	0	0	3	0	0	12	160
8:30 AM	2	0	1	0	0	0	0	0	0	2	0	0	0	6	0	0	11	157
8:35 AM	1	0	1	0	1	0	0	0	0	2	1	0	1	5	0	0	12	162
8:40 AM	0	0	1	0	0	0	1	0	1	5	0	0	0	1	0	0	9	161
8:45 AM	0	0	3	0	0	0	0	0	0	3	2	0	1	6	0	0	15	163
8:50 AM	0	0	1	0	0	0	0	0	0	3	0	0	1	3	0	0	8	158
8:55 AM	0	0	0	0	0	0	0	0	0	4	3	0	1	3	0	0	11	147

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	0	8	0	0	0	0	0	0	144	4	0	4	28	0	0	200
Heavy Trucks	4	0	0		0	0	0		0	4	0		0	0	0		8
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 1/30/2012 5:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

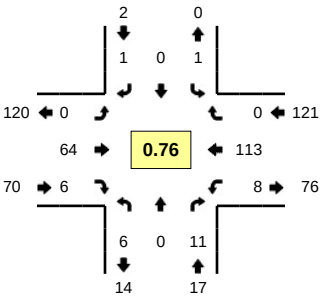
LOCATION: Fulton St -- Inyo St

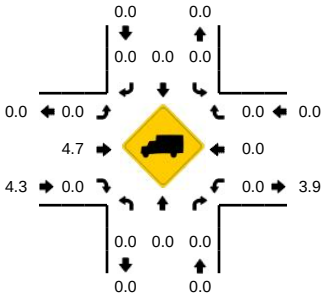
QC JOB #: 10705106

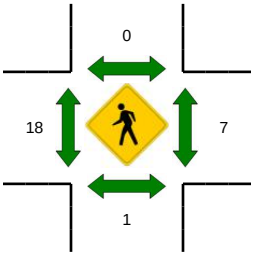
CITY/STATE: Fresno, CA

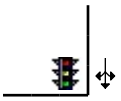
DATE: Thu, Jan 26 2012

Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

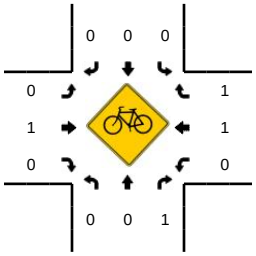


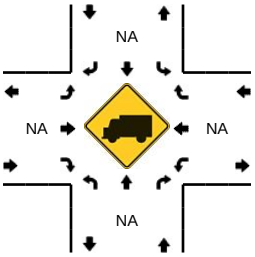


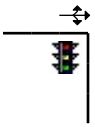




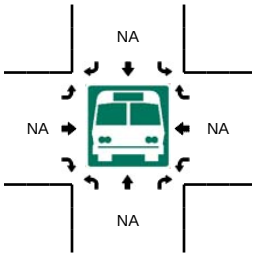












5-Min Count Period Beginning At	Fulton St (Northbound)				Fulton St (Southbound)				Inyo St (Eastbound)				Inyo St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	0	0	0	9	0	0	1	5	0	0	15	
4:05 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	7	0	0	13	
4:10 PM	0	0	1	0	0	0	0	0	0	8	0	0	2	7	0	0	18	
4:15 PM	0	0	1	0	1	0	0	0	0	1	1	0	3	4	0	0	11	
4:20 PM	1	0	2	0	0	0	0	0	0	2	1	0	1	9	0	0	16	
4:25 PM	0	0	1	0	0	0	0	0	0	3	0	0	2	9	0	0	15	
4:30 PM	0	0	2	0	0	0	0	0	0	2	1	0	1	8	0	1	15	
4:35 PM	0	0	0	0	0	0	0	0	0	5	0	0	1	12	0	0	18	
4:40 PM	0	0	1	0	0	0	0	0	0	6	0	0	0	5	0	0	12	
4:45 PM	1	0	1	0	0	0	0	0	0	5	0	0	0	13	0	0	20	
4:50 PM	0	0	1	0	0	0	0	0	0	5	0	0	0	5	0	0	11	
4:55 PM	0	0	1	0	0	0	0	0	0	4	0	0	0	5	0	0	10	174
5:00 PM	1	0	0	0	0	0	0	0	0	4	0	0	0	8	0	0	13	172
5:05 PM	0	0	0	0	0	0	0	0	0	7	0	0	1	14	0	0	22	181
5:10 PM	1	0	1	0	0	0	0	0	0	4	0	0	2	14	0	0	22	185
5:15 PM	1	0	1	0	0	0	0	0	0	7	1	0	1	14	0	0	25	199
5:20 PM	0	0	1	0	0	0	0	0	0	6	2	0	1	7	0	0	17	200
5:25 PM	1	0	1	0	0	0	0	0	0	4	1	0	2	9	0	0	18	203
5:30 PM	1	0	1	0	0	0	0	0	0	7	0	0	0	8	0	0	17	205
5:35 PM	0	0	1	0	1	0	0	0	0	5	2	0	0	11	0	0	20	207
5:40 PM	0	0	2	0	0	0	1	0	0	6	0	0	1	5	0	0	15	210
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	6	196
5:50 PM	0	0	1	0	0	0	0	0	0	3	2	0	0	0	0	0	6	191
5:55 PM	0	0	2	0	0	0	0	0	0	3	0	0	1	2	0	0	8	189

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	0	8	0	0	0	0	0	0	72	4	0	16	168	0	0	276
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	0	0		4
Pedestrians		0				0				4				4			8
Bicycles	0	0	1		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 1/30/2012 5:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

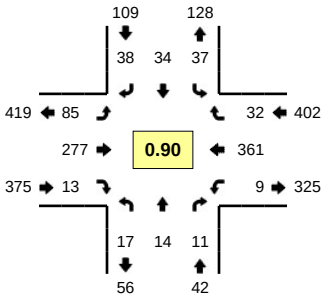
LOCATION: B St -- Fresno St

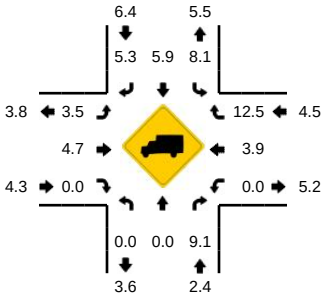
QC JOB #: 10705107

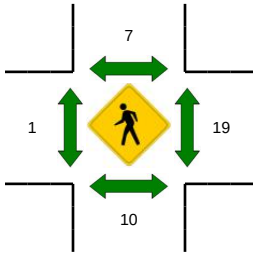
CITY/STATE: Fresno, CA

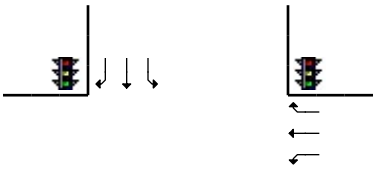
DATE: Thu, Jan 26 2012

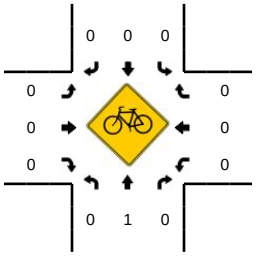
Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

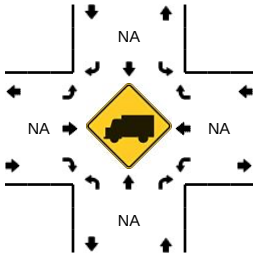


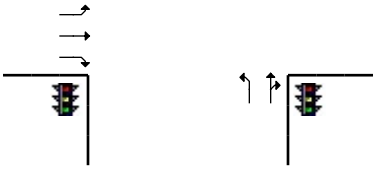


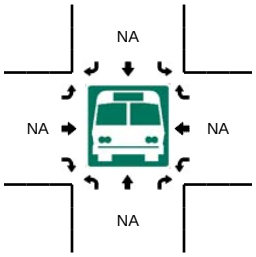












5-Min Count Period Beginning At	B St (Northbound)				B St (Southbound)				Fresno St (Eastbound)				Fresno St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	1	1	0	0	1	2	0	3	13	1	0	1	15	2	0	40	
7:05 AM	0	0	1	0	0	2	4	0	4	18	1	0	0	9	2	0	41	
7:10 AM	0	1	0	0	1	2	0	0	1	20	1	0	1	22	3	0	52	
7:15 AM	1	1	1	0	2	1	2	0	5	26	1	0	1	24	3	0	68	
7:20 AM	0	2	0	0	4	1	2	0	6	19	1	0	0	24	2	0	61	
7:25 AM	1	4	1	0	1	1	1	0	6	17	1	0	0	30	2	0	65	
7:30 AM	1	4	2	0	4	1	4	0	10	21	2	0	1	26	5	0	81	
7:35 AM	3	1	0	0	2	3	3	0	1	26	2	1	3	35	2	0	82	
7:40 AM	1	1	1	0	2	2	1	0	5	34	2	0	0	25	2	0	76	
7:45 AM	5	2	2	0	7	2	2	0	10	19	2	1	1	34	3	0	90	
7:50 AM	2	0	1	0	2	9	0	0	6	25	1	0	0	37	3	0	86	
7:55 AM	0	3	0	0	5	1	6	0	4	23	1	1	0	34	3	0	81	823
8:00 AM	0	3	0	0	5	3	4	0	8	15	2	1	1	35	2	0	79	862
8:05 AM	3	1	0	0	1	1	1	0	10	27	1	0	1	27	2	0	75	896
8:10 AM	1	0	1	0	1	3	3	0	5	25	1	0	0	35	4	0	79	923
8:15 AM	0	3	2	0	5	3	2	0	7	22	1	0	0	21	2	0	68	923
8:20 AM	2	1	0	0	2	3	3	0	2	17	1	0	1	20	3	0	55	917
8:25 AM	2	1	0	0	1	2	5	0	3	28	1	0	1	28	3	0	75	927
8:30 AM	0	0	3	0	4	1	4	0	8	21	0	0	0	37	1	0	79	925
8:35 AM	1	0	1	0	3	1	7	0	8	24	2	0	3	23	4	0	77	920
8:40 AM	1	0	1	0	1	5	1	0	11	31	0	0	1	30	2	0	84	928
8:45 AM	0	6	0	0	2	2	7	0	11	25	0	0	0	27	3	0	83	921
8:50 AM	0	2	1	0	4	9	0	0	17	24	1	0	0	29	3	0	90	925
8:55 AM	1	1	1	0	0	4	5	0	3	31	1	1	0	26	3	0	77	921

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	20	12	0	56	48	32	0	80	268	16	8	4	420	36	0	1028
Heavy Trucks	0	0	0		0	4	4		0	4	0		0	8	8		28
Pedestrians		4				12				4				28			48
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 1/30/2012 5:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

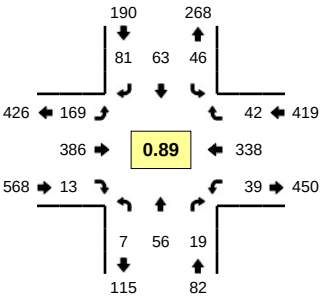
LOCATION: B St -- Fresno St

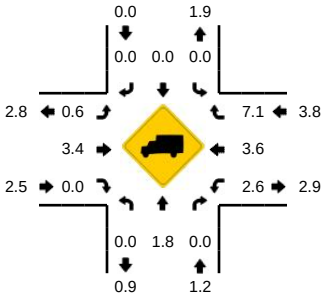
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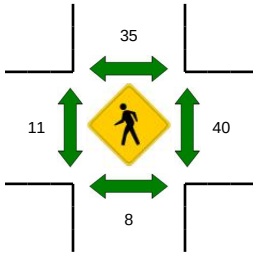
CITY/STATE: Fresno, CA

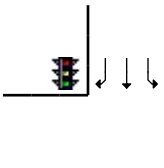
DATE: Thu, Jan 26 2012

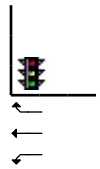
Peak-Hour: 4:25 PM -- 5:25 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

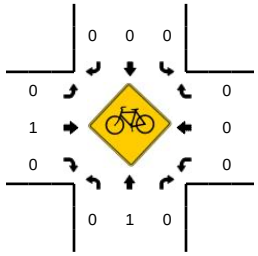


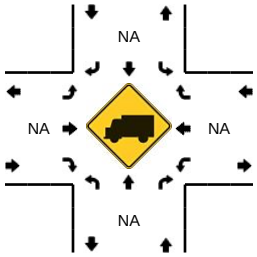


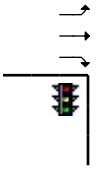




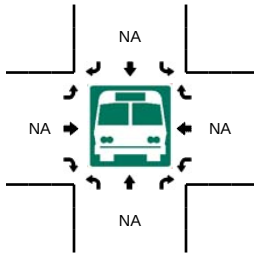












5-Min Count Period Beginning At	B St (Northbound)				B St (Southbound)				Fresno St (Eastbound)				Fresno St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	4	1	0	4	8	7	0	8	22	3	0	2	30	5	0	98	
4:05 PM	0	5	2	0	3	3	10	0	16	31	2	0	1	32	2	0	107	
4:10 PM	2	2	1	0	2	4	7	0	12	26	2	0	2	40	5	0	105	
4:15 PM	1	3	0	0	3	6	8	0	11	34	3	0	4	25	7	0	105	
4:20 PM	1	2	2	0	2	4	12	0	13	21	1	0	7	28	5	0	98	
4:25 PM	0	7	1	0	3	4	8	0	19	31	0	0	2	27	2	0	104	
4:30 PM	2	3	2	0	5	6	4	1	12	43	2	0	7	26	7	0	120	
4:35 PM	1	7	1	0	6	2	7	0	16	41	1	0	4	38	3	0	127	
4:40 PM	1	6	3	0	2	6	9	0	11	33	2	0	3	28	3	0	107	
4:45 PM	2	4	3	0	4	8	4	0	13	22	2	0	5	20	5	0	92	
4:50 PM	0	1	3	0	2	2	5	0	14	28	0	0	2	26	3	0	86	
4:55 PM	0	6	0	0	2	5	6	0	8	29	2	0	1	21	3	0	83	1232
5:00 PM	0	7	0	0	4	5	4	0	14	45	1	0	3	23	2	0	108	1242
5:05 PM	0	4	0	0	6	4	7	0	18	36	1	0	4	31	8	0	119	1254
5:10 PM	0	2	2	0	2	6	8	0	11	30	1	0	3	28	1	0	94	1243
5:15 PM	0	5	1	0	4	4	6	0	14	27	0	0	4	33	5	0	103	1241
5:20 PM	1	4	3	0	5	11	13	0	19	21	1	0	1	37	0	0	116	1259
5:25 PM	0	2	3	0	4	2	6	0	4	32	0	0	8	23	6	0	90	1245
5:30 PM	3	2	1	0	2	6	7	0	14	28	0	0	4	30	4	0	101	1226
5:35 PM	1	5	5	0	6	6	10	2	11	29	6	0	2	26	3	0	112	1211
5:40 PM	4	7	1	0	1	3	7	0	9	28	2	0	1	31	7	0	101	1205
5:45 PM	1	9	0	0	6	7	11	0	14	25	3	1	3	26	6	0	112	1225
5:50 PM	0	9	1	0	4	6	6	0	7	19	7	0	2	37	4	0	102	1241
5:55 PM	3	4	1	0	4	5	5	0	8	16	3	0	7	15	2	0	73	1231

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	64	24	0	52	56	80	4	156	468	20	0	56	368	52	0	1416
Heavy Trucks	0	4	0		0	0	0		0	20	0		0	12	4		40
Pedestrians		0				40				4				32			76
Bicycles	0	1	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 1/30/2012 5:49 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

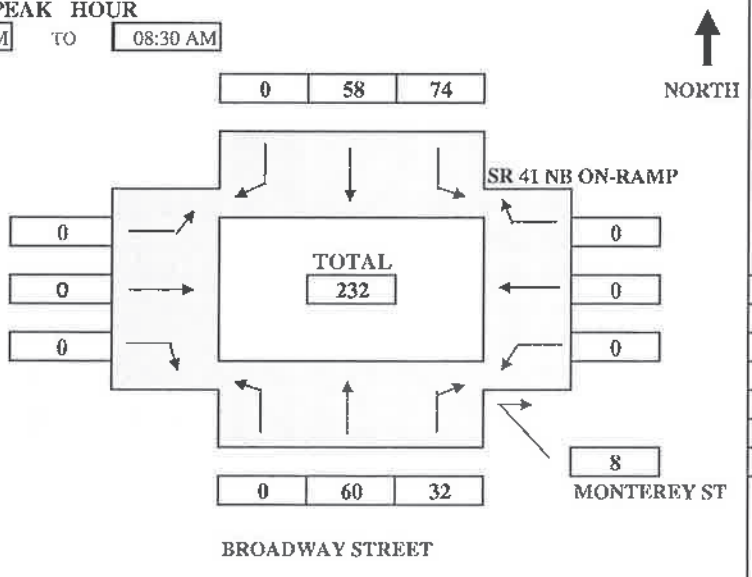
FRESNO PEAK HOUR TURNING MOVEMENT COUNTS

B.A.Y.M.E.T.R.I.C.S.

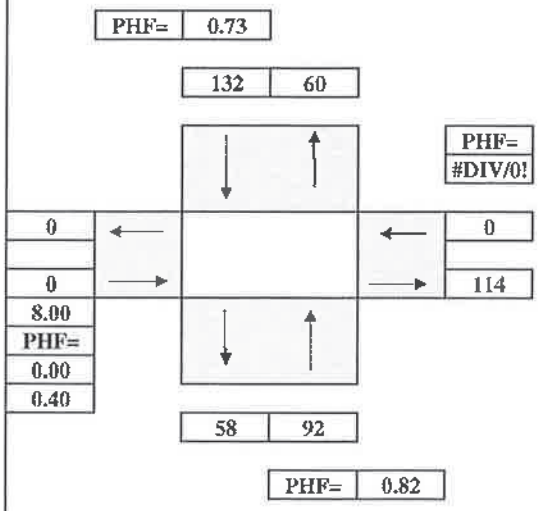
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	SR 41 NB ON-RAMP	CITY:	FRESNO	FILE:	2911072-6AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			From MONTEREY STREET			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	ON-RAMP			Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	9	12	8	8	0	0	1	0	0	0	0	*38*
7:15 AM	---	7:30 AM	0	22	18	24	17	0	0	1	0	0	0	0	*82*
7:30 AM	---	7:45 AM	0	29	30	50	28	0	0	1	0	0	0	0	*138*
7:45 AM	---	8:00 AM	0	46	41	70	53	0	0	6	0	0	0	0	*216*
8:00 AM	---	8:15 AM	0	62	43	88	64	0	0	7	0	0	0	0	*264*
8:15 AM	---	8:30 AM	0	82	50	98	75	0	0	9	0	0	0	0	*314*
8:30 AM	---	8:45 AM	0	90	61	108	88	0	0	11	0	0	0	0	*358*
8:45 AM	---	9:00 AM	0	109	67	127	98	0	0	12	0	0	0	0	*413*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	9	12	8	8	0	0	1	0	0		0	*38*
7:15 AM	---	7:30 AM	0	13	6	16	9	0	0	0	0	0	0	0	*44*
7:30 AM	---	7:45 AM	0	7	12	26	11	0	0	0	0	0	0	0	*56*
7:45 AM	---	8:00 AM	0	17	11	20	25	0	0	5	0	0	0	0	*78*
8:00 AM	---	8:15 AM	0	16	2	18	11	0	0	1	0	0	0	0	*48*
8:15 AM	---	8:30 AM	0	20	7	10	11	0	0	2	0	0	0	0	*50*
8:30 AM	---	8:45 AM	0	8	11	10	13	0	0	2	0	0	0	0	*44*
8:45 AM	---	9:00 AM	0	19	6	19	10	0	0	1	0	0	0	0	*55*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	46	41	70	53	0	0	6	0	0	0	0	*216*
7:15 AM	---	8:15 AM	0	53	31	80	56	0	0	6	0	0	0	0	*226*
7:30 AM	---	8:30 AM	0	60	32	74	58	0	0	8	0	0	0	0	*232*
7:45 AM	---	8:45 AM	0	61	31	58	60	0	0	10	0	0	0	0	*220*
8:00 AM	---	9:00 AM	0	63	26	57	45	0	0	6	0	0	0	0	*197*

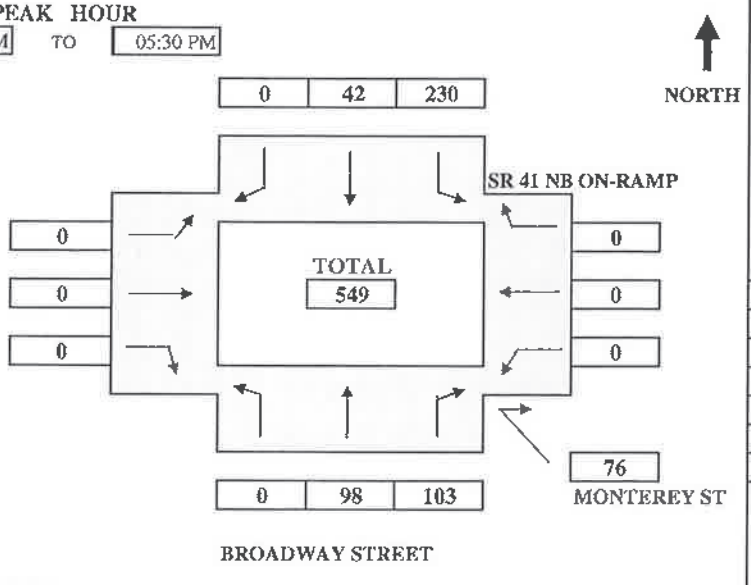
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

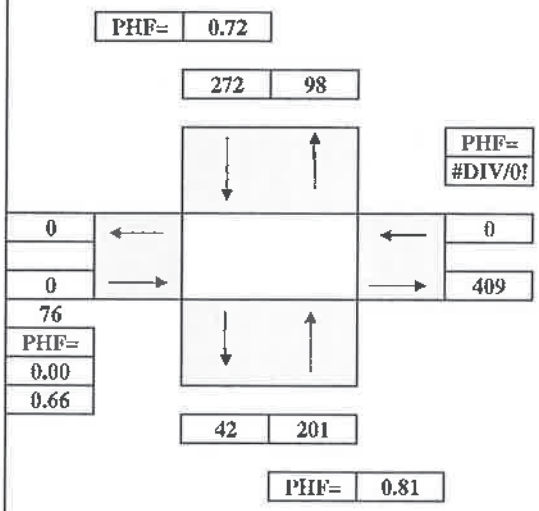
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	SR 41 NB ON-RAMP	CITY:	FRESNO	FILE:	2911072-6PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	From MONTEREY STREET ON-RAMP Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA														
4:00 PM	4:15 PM	0	26	25	37	9	0	0	28	0	0	0	0	*125*
4:15 PM	4:30 PM	0	42	44	70	22	0	0	35	0	0	0	0	*213*
4:30 PM	4:45 PM	0	65	74	124	29	0	0	53	0	0	0	0	*345*
4:45 PM	5:00 PM	0	86	97	176	40	0	0	70	0	0	0	0	*469*
5:00 PM	5:15 PM	0	117	128	255	55	0	0	99	0	0	0	0	*654*
5:15 PM	5:30 PM	0	140	147	300	64	0	0	111	0	0	0	0	*762*
5:30 PM	5:45 PM	0	153	159	339	74	0	0	119	0	0	0	0	*844*
5:45 PM	6:00 PM	0	157	164	371	79	0	0	125	0	0	0	0	*896*
TOTAL BY PERIOD														
4:00 PM	4:15 PM	0	26	25	37	9	0	0	28	0	0	0	0	*125*
4:15 PM	4:30 PM	0	16	19	33	13	0	0	7	0	0	0	0	*88*
4:30 PM	4:45 PM	0	23	30	54	7	0	0	18	0	0	0	0	*132*
4:45 PM	5:00 PM	0	21	23	52	11	0	0	17	0	0	0	0	*124*
5:00 PM	5:15 PM	0	31	31	79	15	0	0	29	0	0	0	0	*185*
5:15 PM	5:30 PM	0	23	19	45	9	0	0	12	0	0	0	0	*108*
5:30 PM	5:45 PM	0	13	12	39	10	0	0	8	0	0	0	0	*82*
5:45 PM	6:00 PM	0	4	5	32	5	0	0	6	0	0	0	0	*52*
HOURLY TOTALS														
4:00 PM	5:00 PM	0	86	97	176	40	0	0	70	0	0	0	0	*469*
4:15 PM	5:15 PM	0	91	103	218	46	0	0	71	0	0	0	0	*529*
4:30 PM	5:30 PM	0	98	103	230	42	0	0	76	0	0	0	0	*549*
4:45 PM	5:45 PM	0	88	85	215	45	0	0	66	0	0	0	0	*499*
5:00 PM	6:00 PM	0	71	67	195	39	0	0	55	0	0	0	0	*427*

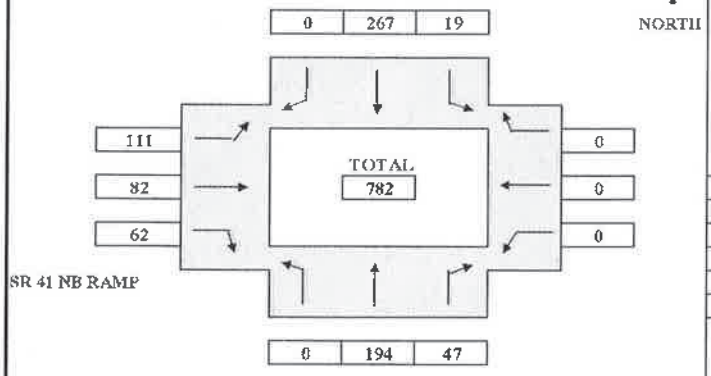
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

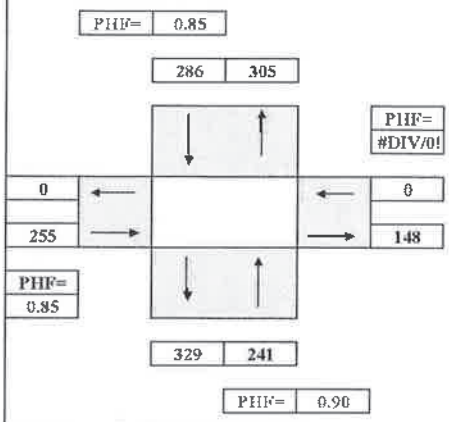
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	SR 41 NB RAMP	CITY:	FRESNO	FILE:	2911072-19AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	29	3	4	43	0	32	10	9	0	0	0	*130*
7:15 AM	---	7:30 AM	0	54	5	6	92	0	51	20	16	0	0	0	*244*
7:30 AM	---	7:45 AM	0	103	23	11	171	0	66	45	29	0	0	0	*448*
7:45 AM	---	8:00 AM	0	145	31	13	248	0	94	62	52	0	0	0	*645*
8:00 AM	---	8:15 AM	0	198	42	18	304	0	121	77	69	0	0	0	*829*
8:15 AM	---	8:30 AM	0	248	52	25	359	0	162	102	78	0	0	0	*1,026*
8:30 AM	---	8:45 AM	0	293	58	29	410	0	206	117	90	0	0	0	*1,203*
8:45 AM	---	9:00 AM	0	329	64	36	444	0	249	126	105	0	0	0	*1,353*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	29	3	4	43	0	32	10	9	0	0	0	*130*
7:15 AM	---	7:30 AM	0	25	2	2	49	0	19	10	7	0	0	0	*114*
7:30 AM	---	7:45 AM	0	49	18	5	79	0	15	25	13	0	0	0	*204*
7:45 AM	---	8:00 AM	0	42	8	2	77	0	28	17	23	0	0	0	*197*
8:00 AM	---	8:15 AM	0	53	11	5	56	0	27	15	17	0	0	0	*184*
8:15 AM	---	8:30 AM	0	50	10	7	55	0	41	25	9	0	0	0	*197*
8:30 AM	---	8:45 AM	0	45	6	4	51	0	44	15	12	0	0	0	*177*
8:45 AM	---	9:00 AM	0	36	6	7	34	0	43	9	15	0	0	0	*150*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	145	31	13	248	0	94	62	52	0	0	0	*645*
7:15 AM	---	8:15 AM	0	169	39	14	261	0	89	67	60	0	0	0	*699*
7:30 AM	---	8:30 AM	0	194	47	19	267	0	111	82	62	0	0	0	*782*
7:45 AM	---	8:45 AM	0	190	35	18	239	0	140	72	61	0	0	0	*755*
8:00 AM	---	9:00 AM	0	184	33	23	196	0	155	64	53	0	0	0	*708*

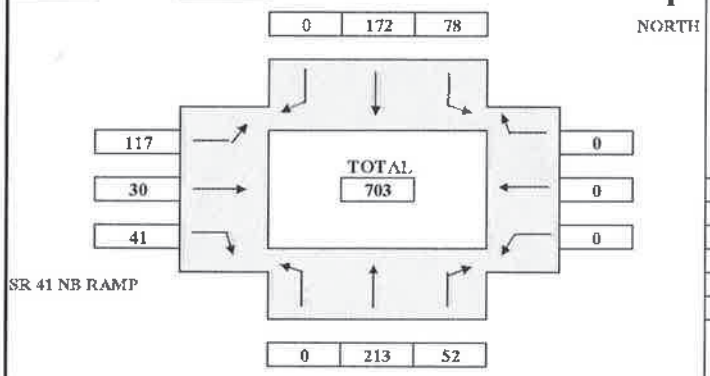
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

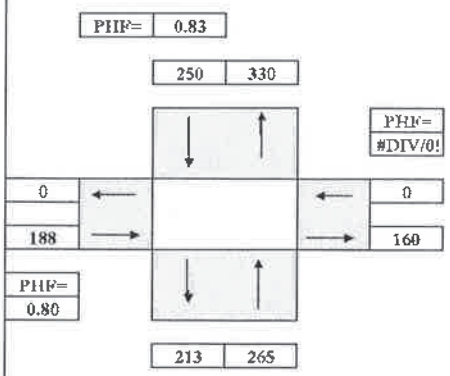
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	SR 41 NB RAMP	CITY:	FRESNO	FILE:	2911072-19PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	60	21	24	51	0	36	11	12	0	0	0	*215*
4:15 PM	---	4:30 PM	0	112	34	40	81	0	63	19	24	0	0	0	*373*
4:30 PM	---	4:45 PM	0	162	41	63	132	0	90	28	31	0	0	0	*547*
4:45 PM	---	5:00 PM	0	213	52	78	172	0	117	30	41	0	0	0	*703*
5:00 PM	---	5:15 PM	0	280	69	90	207	0	148	36	48	0	0	0	*878*
5:15 PM	---	5:30 PM	0	331	72	99	236	0	175	42	55	0	0	0	*1,010*
5:30 PM	---	5:45 PM	0	355	79	110	271	0	206	48	60	0	0	0	*1,129*
5:45 PM	---	6:00 PM	0	388	84	120	294	0	226	54	63	0	0	0	*1,229*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	60	21	24	51	0	36	11	12	0	0	0	*215*
4:15 PM	---	4:30 PM	0	52	13	16	30	0	27	8	12	0	0	0	*158*
4:30 PM	---	4:45 PM	0	50	7	23	51	0	27	9	7	0	0	0	*174*
4:45 PM	---	5:00 PM	0	51	11	15	40	0	27	2	10	0	0	0	*156*
5:00 PM	---	5:15 PM	0	67	17	12	35	0	31	6	7	0	0	0	*175*
5:15 PM	---	5:30 PM	0	51	3	9	29	0	27	6	7	0	0	0	*132*
5:30 PM	---	5:45 PM	0	24	7	11	35	0	31	6	5	0	0	0	*119*
5:45 PM	---	6:00 PM	0	33	5	10	23	0	20	6	3	0	0	0	*100*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	213	52	78	172	0	117	30	41	0	0	0	*703*
4:15 PM	---	5:15 PM	0	220	48	66	156	0	112	25	36	0	0	0	*663*
4:30 PM	---	5:30 PM	0	219	38	59	155	0	112	23	31	0	0	0	*637*
4:45 PM	---	5:45 PM	0	193	38	47	139	0	116	20	29	0	0	0	*582*
5:00 PM	---	6:00 PM	0	175	32	42	122	0	109	24	22	0	0	0	*526*

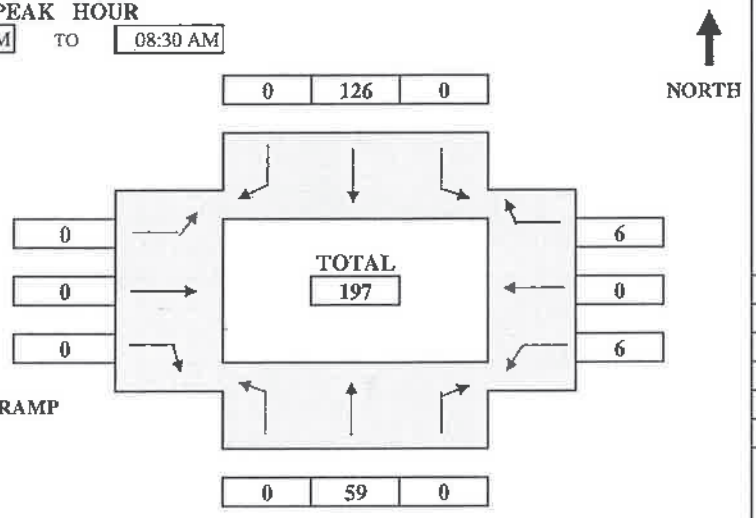
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

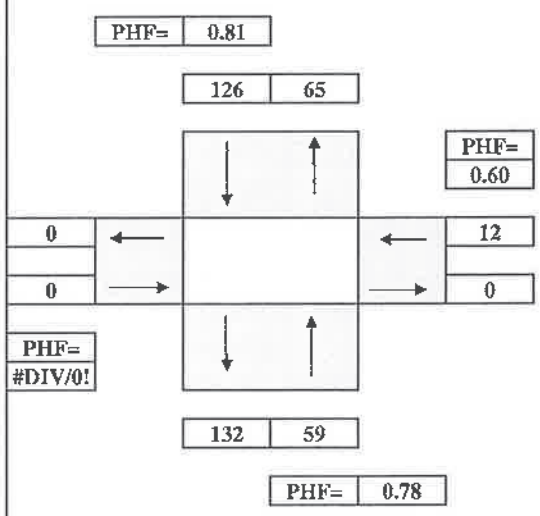
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	SR 41 SB RAMP	CITY:	FRESNO	FILE:	2911072-5AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	9	0	0	15	0	0	0	0	3	0	0	*27*
7:15 AM	---	7:30 AM	0	22	0	0	36	0	0	0	0	5	0	2	*65*
7:30 AM	---	7:45 AM	0	30	0	0	72	0	0	0	0	6	0	4	*112*
7:45 AM	---	8:00 AM	0	46	0	0	111	0	0	0	0	10	0	5	*172*
8:00 AM	---	8:15 AM	0	62	0	0	142	0	0	0	0	10	0	6	*220*
8:15 AM	---	8:30 AM	0	81	0	0	162	0	0	0	0	11	0	8	*262*
8:30 AM	---	8:45 AM	0	90	0	0	183	0	0	0	0	14	0	9	*296*
8:45 AM	---	9:00 AM	0	109	0	0	208	0	0	0	0	17	0	11	*345*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	9	0	0	15	0	0	0	0	3	0	0	*27*
7:15 AM	---	7:30 AM	0	13	0	0	21	0	0	0	0	2	0	2	*38*
7:30 AM	---	7:45 AM	0	8	0	0	36	0	0	0	0	1	0	2	*47*
7:45 AM	---	8:00 AM	0	16	0	0	39	0	0	0	0	4	0	1	*60*
8:00 AM	---	8:15 AM	0	16	0	0	31	0	0	0	0	0	0	1	*48*
8:15 AM	---	8:30 AM	0	19	0	0	20	0	0	0	0	1	0	2	*42*
8:30 AM	---	8:45 AM	0	9	0	0	21	0	0	0	0	3	0	1	*34*
8:45 AM	---	9:00 AM	0	19	0	0	25	0	0	0	0	3	0	2	*49*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	46	0	0	111	0	0	0	0	10	0	5	*172*
7:15 AM	---	8:15 AM	0	53	0	0	127	0	0	0	0	7	0	6	*193*
7:30 AM	---	8:30 AM	0	59	0	0	126	0	0	0	0	6	0	6	*197*
7:45 AM	---	8:45 AM	0	60	0	0	111	0	0	0	0	8	0	5	*184*
8:00 AM	---	9:00 AM	0	63	0	0	97	0	0	0	0	7	0	6	*173*

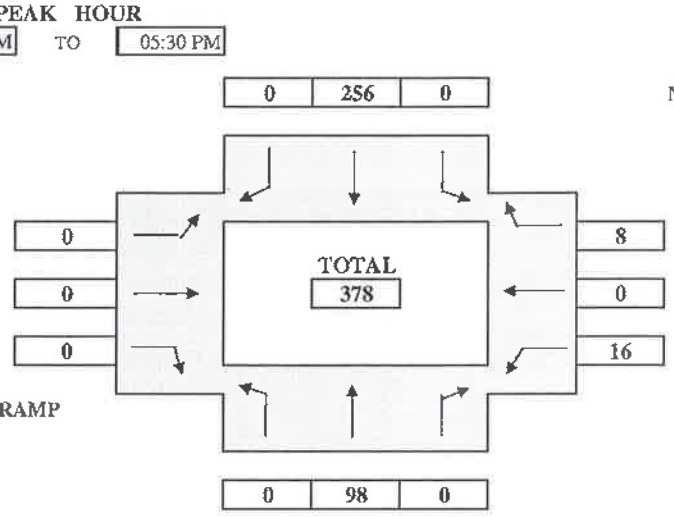
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B.A.Y.M.E.T.R.I.C.S.

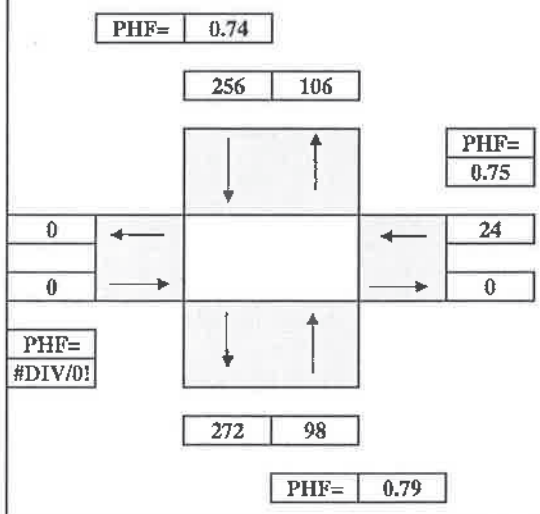
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	SR 41 SB RAMP	CITY:	FRESNO	FILE:	2911072-5PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	26	0	0	44	0	0	0	0	3	0	4	*77*
4:15 PM	---	4:30 PM	0	42	0	0	88	0	0	0	0	4	0	5	*139*
4:30 PM	---	4:45 PM	0	64	0	0	146	0	0	0	0	6	0	8	*224*
4:45 PM	---	5:00 PM	0	86	0	0	204	0	0	0	0	12	0	10	*312*
5:00 PM	---	5:15 PM	0	117	0	0	291	0	0	0	0	19	0	11	*438*
5:15 PM	---	5:30 PM	0	140	0	0	344	0	0	0	0	20	0	13	*517*
5:30 PM	---	5:45 PM	0	151	0	0	391	0	0	0	0	21	0	14	*577*
5:45 PM	---	6:00 PM	0	157	0	0	428	0	0	0	0	22	0	15	*622*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	26	0	0	44	0	0	0	0	3	0	4	*77*
4:15 PM	---	4:30 PM	0	16	0	0	44	0	0	0	0	1	0	1	*62*
4:30 PM	---	4:45 PM	0	22	0	0	58	0	0	0	0	2	0	3	*85*
4:45 PM	---	5:00 PM	0	22	0	0	58	0	0	0	0	6	0	2	*88*
5:00 PM	---	5:15 PM	0	31	0	0	87	0	0	0	0	7	0	1	*126*
5:15 PM	---	5:30 PM	0	23	0	0	53	0	0	0	0	1	0	2	*79*
5:30 PM	---	5:45 PM	0	11	0	0	47	0	0	0	0	1	0	1	*60*
5:45 PM	---	6:00 PM	0	6	0	0	37	0	0	0	0	1	0	1	*45*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	86	0	0	204	0	0	0	0	12	0	10	*312*
4:15 PM	---	5:15 PM	0	91	0	0	247	0	0	0	0	16	0	7	*361*
4:30 PM	---	5:30 PM	0	98	0	0	256	0	0	0	0	16	0	8	*378*
4:45 PM	---	5:45 PM	0	87	0	0	245	0	0	0	0	15	0	6	*353*
5:00 PM	---	6:00 PM	0	71	0	0	224	0	0	0	0	10	0	5	*310*

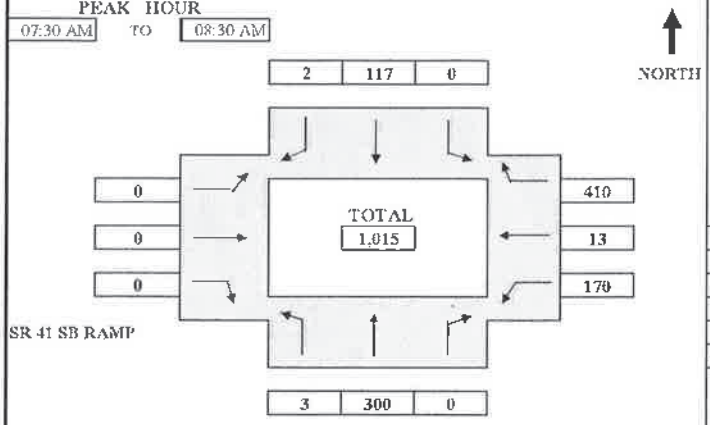
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

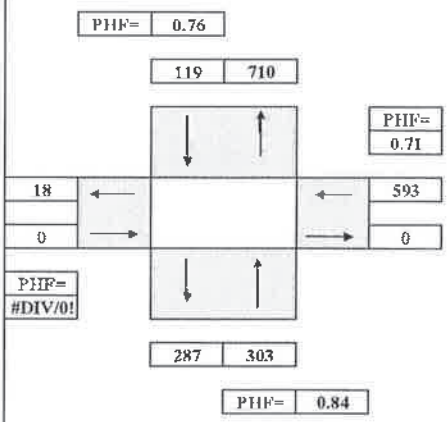
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	SR 41 SB RAMP	CITY:	FRESNO	FILE:	2911072-18AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	60	0	0	17	0	0	0	0	32	4	60	*173*
7:15 AM	---	7:30 AM	1	103	0	0	38	1	0	0	0	62	10	161	*376*
7:30 AM	---	7:45 AM	1	167	0	0	76	2	0	0	0	108	14	268	*636*
7:45 AM	---	8:00 AM	2	235	0	0	102	2	0	0	0	162	21	315	*839*
8:00 AM	---	8:15 AM	2	315	0	0	127	2	0	0	0	198	21	489	*1,154*
8:15 AM	---	8:30 AM	4	403	0	0	155	3	0	0	0	232	23	571	*1,391*
8:30 AM	---	8:45 AM	10	486	0	0	186	5	0	0	0	256	30	630	*1,603*
8:45 AM	---	9:00 AM	11	564	0	0	211	6	0	0	0	273	34	685	*1,784*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	60	0	0	17	0	0	0	0	32	4	60	*173*
7:15 AM	---	7:30 AM	1	43	0	0	21	1	0	0	0	30	6	101	*203*
7:30 AM	---	7:45 AM	0	64	0	0	38	1	0	0	0	46	4	107	*260*
7:45 AM	---	8:00 AM	1	68	0	0	26	0	0	0	0	54	7	47	*203*
8:00 AM	---	8:15 AM	0	80	0	0	25	0	0	0	0	36	0	174	*315*
8:15 AM	---	8:30 AM	2	88	0	0	28	1	0	0	0	34	2	82	*237*
8:30 AM	---	8:45 AM	6	83	0	0	31	2	0	0	0	24	7	59	*212*
8:45 AM	---	9:00 AM	1	78	0	0	25	1	0	0	0	17	4	55	*181*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	2	235	0	0	102	2	0	0	0	162	21	315	*839*
7:15 AM	---	8:15 AM	2	255	0	0	110	2	0	0	0	166	17	429	*981*
7:30 AM	---	8:30 AM	3	300	0	0	117	2	0	0	0	170	13	410	*1,015*
7:45 AM	---	8:45 AM	9	319	0	0	110	3	0	0	0	148	16	362	*967*
8:00 AM	---	9:00 AM	9	329	0	0	109	4	0	0	0	111	13	370	*945*

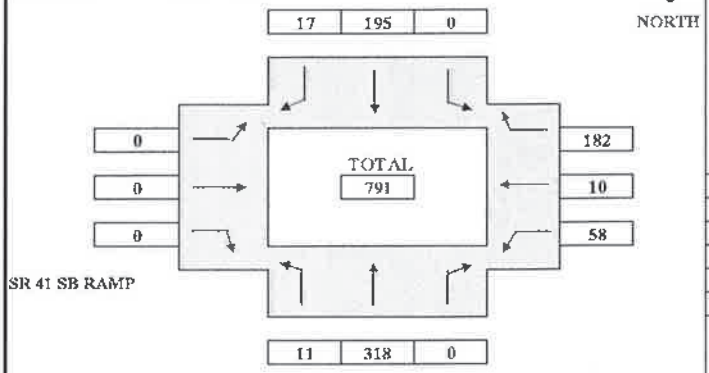
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

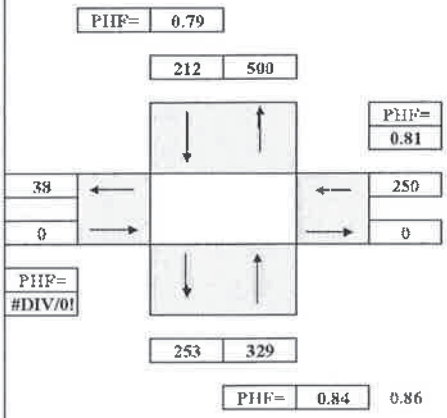
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	SR 41 SB RAMP	CITY:	FRESNO	FILE:	2911072-18PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	5	91	0	0	55	5	0	0	0	20	4	53	*233*
4:15 PM	---	4:30 PM	7	168	0	0	91	6	0	0	0	31	6	94	*403*
4:30 PM	---	4:45 PM	8	244	0	0	151	13	0	0	0	46	8	146	*616*
4:45 PM	---	5:00 PM	11	318	0	0	195	17	0	0	0	58	10	182	*791*
5:00 PM	---	5:15 PM	14	413	0	0	232	27	0	0	0	68	13	219	*986*
5:15 PM	---	5:30 PM	17	488	0	0	265	28	0	0	0	73	15	263	*1,149*
5:30 PM	---	5:45 PM	18	541	0	0	301	31	0	0	0	83	17	308	*1,299*
5:45 PM	---	6:00 PM	20	592	0	0	331	31	0	0		86	17	351	*1,428*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	5	91	0	0	55	5	0	0	0	20	4	53	*233*
4:15 PM	---	4:30 PM	2	77	0	0	36	1	0	0	0	11	2	41	*170*
4:30 PM	---	4:45 PM	1	76	0	0	60	7	0	0	0	15	2	52	*213*
4:45 PM	---	5:00 PM	3	74	0	0	44	4	0	0	0	12	2	36	*175*
5:00 PM	---	5:15 PM	3	95	0	0	37	10	0	0	0	10	3	37	*195*
5:15 PM	---	5:30 PM	3	75	0	0	33	1	0	0	0	5	2	44	*163*
5:30 PM	---	5:45 PM	1	53	0	0	36	3	0	0	0	10	2	45	*150*
5:45 PM	---	6:00 PM	2	51	0	0	30	0	0	0	0	3	0	43	*129*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	11	318	0	0	195	17	0	0	0	58	10	182	*791*
4:15 PM	---	5:15 PM	9	322	0	0	177	22	0	0	0	48	9	166	*753*
4:30 PM	---	5:30 PM	10	320	0	0	174	22	0	0	0	42	9	169	*746*
4:45 PM	---	5:45 PM	10	297	0	0	150	18	0	0	0	37	9	162	*683*
5:00 PM	---	6:00 PM	9	274	0	0	136	14	0	0	0	28	7	169	*637*

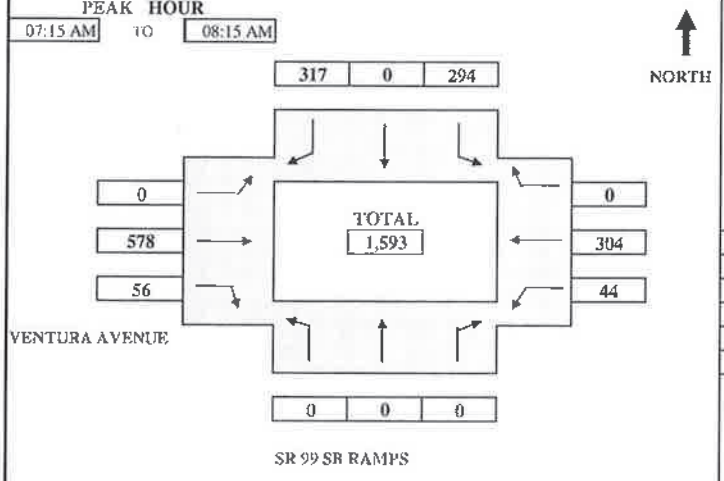
Telephone: (510)232-1271 Fax: (510)232-1272

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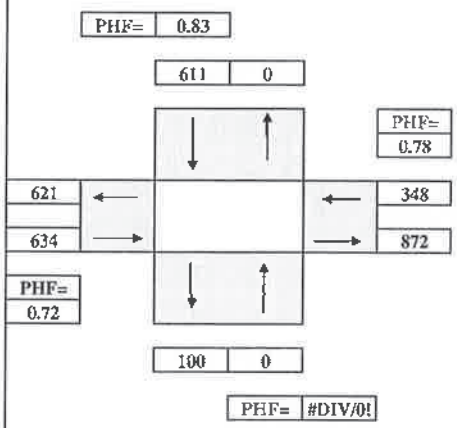
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	SR 99 SB RAMPS	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	VENTURA AVENUE	CITY:	FRESNO	FILE:	2911072-53AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	34	0	48	0	49	4	8	45	0	*188*
7:15 AM	---	7:30 AM	0	0	0	99	0	133	0	149	20	13	114	0	*528*
7:30 AM	---	7:45 AM	0	0	0	183	0	233	0	348	35	30	209	0	*1,038*
7:45 AM	---	8:00 AM	0	0	0	267	0	311	0	552	51	41	284	0	*1,506*
8:00 AM	---	8:15 AM	0	0	0	328	0	365	0	627	60	52	349	0	*1,781*
8:15 AM	---	8:30 AM	0	0	0	381	0	388	0	721	62	68	400	0	*2,020*
8:30 AM	---	8:45 AM	0	0	0	431	0	428	0	799	67	79	452	0	*2,256*
8:45 AM	---	9:00 AM	0	0	0	475	0	460	0	887	70	91	510	0	*2,493*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	34	0	48	0	49	4	8	45	0	*188*
7:15 AM	---	7:30 AM	0	0	0	65	0	85	0	100	16	5	69	0	*340*
7:30 AM	---	7:45 AM	0	0	0	84	0	100	0	199	15	17	95	0	*510*
7:45 AM	---	8:00 AM	0	0	0	84	0	78	0	204	16	11	75	0	*468*
8:00 AM	---	8:15 AM	0	0	0	61	0	54	0	75	9	11	65	0	*275*
8:15 AM	---	8:30 AM	0	0	0	53	0	23	0	94	2	16	51	0	*239*
8:30 AM	---	8:45 AM	0	0	0	50	0	40	0	78	5	11	52	0	*236*
8:45 AM	---	9:00 AM	0	0	0	44	0	32	0	88	3	12	58	0	*237*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	267	0	311	0	552	51	41	284	0	*1,506*
7:15 AM	---	8:15 AM	0	0	0	294	0	317	0	578	56	44	304	0	*1,593*
7:30 AM	---	8:30 AM	0	0	0	282	0	255	0	572	42	55	286	0	*1,492*
7:45 AM	---	8:45 AM	0	0	0	248	0	195	0	451	32	49	243	0	*1,218*
8:00 AM	---	9:00 AM	0	0	0	208	0	149	0	335	19	50	226	0	*987*

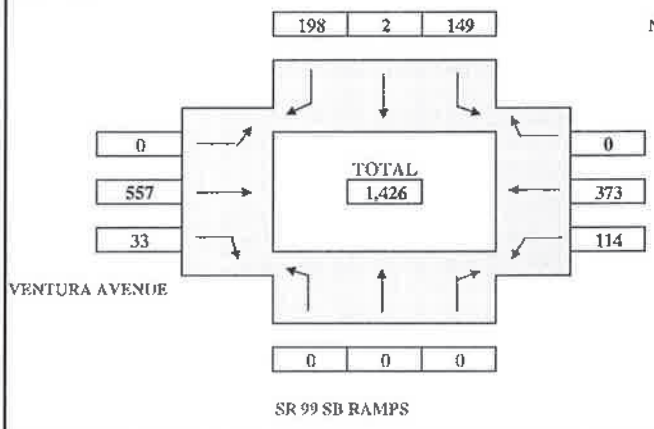
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

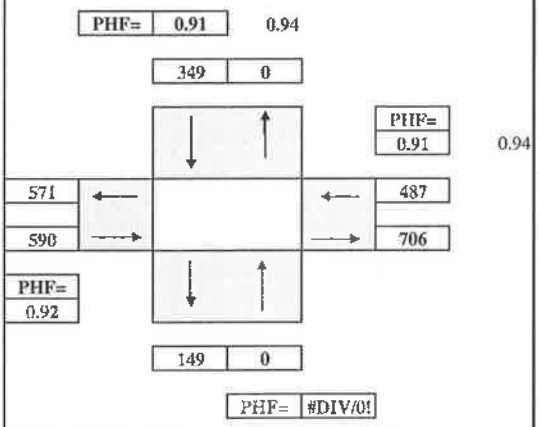
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	SR 99 SB RAMPS	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	VENTURA AVENUE	CITY:	FRESNO	FILE:	2911072-53PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	45	1	50	0	126	10	23	79	0	*334*
4:15 PM	---	4:30 PM	0	0	0	89	1	95	0	258	16	46	170	0	*675*
4:30 PM	---	4:45 PM	0	0	0	132	2	134	0	404	30	90	256	0	*1,048*
4:45 PM	---	5:00 PM	0	0	0	168	3	190	0	544	34	107	355	0	*1,401*
5:00 PM	---	5:15 PM	0	0	0	194	3	248	0	683	43	137	452	0	*1,760*
5:15 PM	---	5:30 PM	0	0	0	215	3	288	0	813	54	157	566	0	*2,096*
5:30 PM	---	5:45 PM	0	0	0	250	3	330	0	943	67	181	621	0	*2,395*
5:45 PM	---	6:00 PM	0	0	0	276	3	380	0	1,043	72	196	685	0	*2,655*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	45	1	50	0	126	10	23	79	0	*334*
4:15 PM	---	4:30 PM	0	0	0	44	0	45	0	132	6	23	91	0	*341*
4:30 PM	---	4:45 PM	0	0	0	43	1	39	0	146	14	44	86	0	*373*
4:45 PM	---	5:00 PM	0	0	0	36	1	56	0	140	4	17	99	0	*353*
5:00 PM	---	5:15 PM	0	0	0	26	0	58	0	139	9	30	97	0	*359*
5:15 PM	---	5:30 PM	0	0	0	21	0	40	0	130	11	20	114	0	*336*
5:30 PM	---	5:45 PM	0	0	0	35	0	42	0	130	13	24	55	0	*299*
5:45 PM	---	6:00 PM	0	0	0	26	0	50	0	100	5	15	64	0	*260*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	168	3	190	0	544	34	107	355	0	*1,401*
4:15 PM	---	5:15 PM	0	0	0	149	2	198	0	557	33	114	373	0	*1,426*
4:30 PM	---	5:30 PM	0	0	0	126	2	193	0	555	38	111	396	0	*1,421*
4:45 PM	---	5:45 PM	0	0	0	118	1	196	0	539	37	91	365	0	*1,347*
5:00 PM	---	6:00 PM	0	0	0	108	0	190	0	499	38	89	330	0	*1,254*

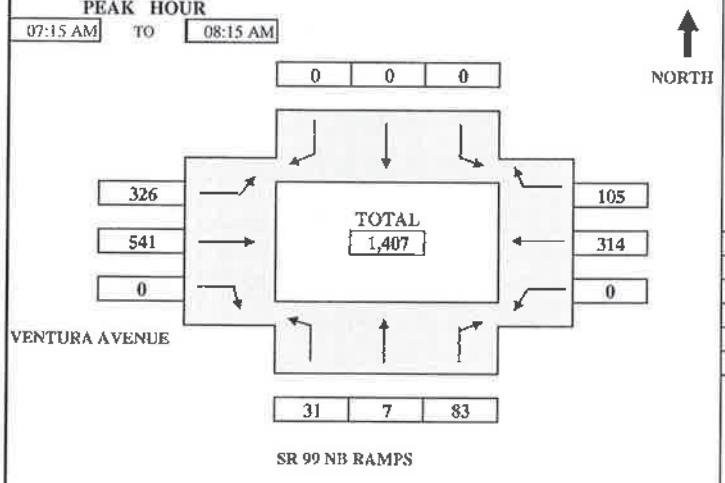
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

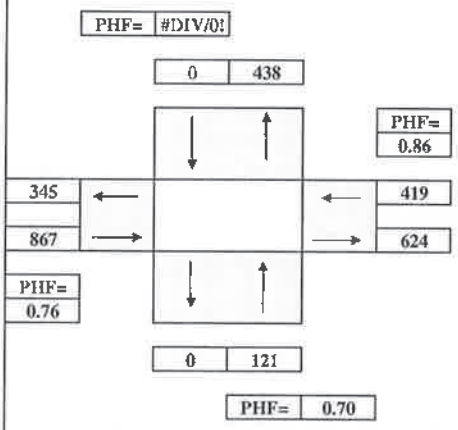
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	SR 99 NB RAMPS	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	VENTURA AVENUE	CITY:	FRESNO	FILE:	2911072-52AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	4	1	5	0	0	0	29	54	0	0	48	27	*168*
7:15 AM	---	7:30 AM	8	3	16	0	0	0	94	154	0	0	117	52	*444*
7:30 AM	---	7:45 AM	21	7	34	0	0	0	208	321	0	0	216	75	*882*
7:45 AM	---	8:00 AM	28	8	69	0	0	0	301	513	0	0	294	104	*1,317*
8:00 AM	---	8:15 AM	35	8	88	0	0	0	355	595	0	0	362	132	*1,575*
8:15 AM	---	8:30 AM	41	10	110	0	0	0	395	701	0	0	421	157	*1,835*
8:30 AM	---	8:45 AM	45	10	126	0	0	0	428	796	0	0	479	189	*2,073*
8:45 AM	---	9:00 AM	54	11	146	0	0	0	468	888	0	0	540	211	*2,318*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	4	1	5	0	0	0	29	54	0	0	48	27	*168*
7:15 AM	---	7:30 AM	4	2	11	0	0	0	65	100	0	0	69	25	*276*
7:30 AM	---	7:45 AM	13	4	18	0	0	0	114	167	0	0	99	23	*438*
7:45 AM	---	8:00 AM	7	1	35	0	0	0	93	192	0	0	78	29	*435*
8:00 AM	---	8:15 AM	7	0	19	0	0	0	54	82	0	0	68	28	*258*
8:15 AM	---	8:30 AM	6	2	22	0	0	0	40	106	0	0	59	25	*260*
8:30 AM	---	8:45 AM	4	0	16	0	0	0	33	95	0	0	58	32	*238*
8:45 AM	---	9:00 AM	9	1	20	0	0	0	40	92	0	0	61	22	*245*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	28	8	69	0	0	0	301	513	0	0	294	104	*1,317*
7:15 AM	---	8:15 AM	31	7	83	0	0	0	326	541	0	0	314	105	*1,407*
7:30 AM	---	8:30 AM	33	7	94	0	0	0	301	547	0	0	304	105	*1,391*
7:45 AM	---	8:45 AM	24	3	92	0	0	0	220	475	0	0	263	114	*1,191*
8:00 AM	---	9:00 AM	26	3	77	0	0	0	167	375	0	0	246	107	*1,001*

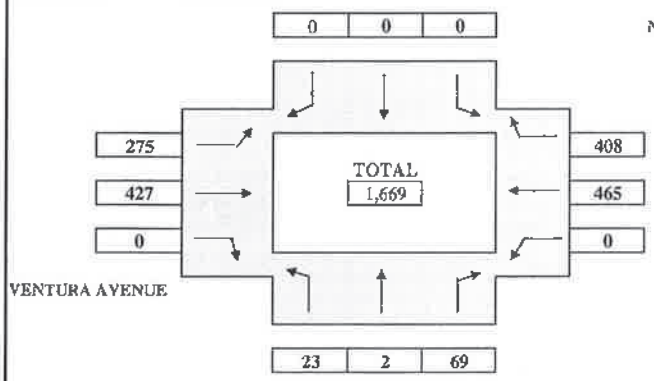
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B.A.Y.M.E.T.R.I.C.S.

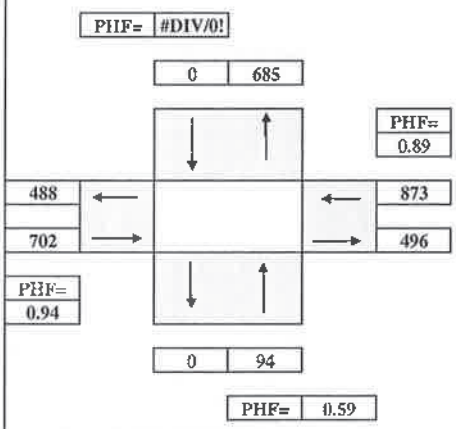
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	SR 99 NB RAMPS	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	VENTURA AVENUE	CITY:	FRESNO	FILE:	2911072-52PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	6	2	25	0	0	0	69	102	0	0	96	110	*410*
4:15 PM	---	4:30 PM	17	3	53	0	0	0	133	214	0	0	199	191	*810*
4:30 PM	---	4:45 PM	19	3	68	0	0	0	206	328	0	0	327	303	*1,254*
4:45 PM	---	5:00 PM	22	3	81	0	0	0	271	437	0	0	441	394	*1,649*
5:00 PM	---	5:15 PM	29	4	94	0	0	0	344	529	0	0	561	518	*2,079*
5:15 PM	---	5:30 PM	44	4	114	0	0	0	406	618	0	0	682	582	*2,450*
5:30 PM	---	5:45 PM	49	6	128	0	0	0	480	708	0	0	756	646	*2,773*
5:45 PM	---	6:00 PM	57	7	136	0	0	0	538	776	0	0	827	706	*3,047*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	6	2	25	0	0	0	69	102	0	0	96	110	*410*
4:15 PM	---	4:30 PM	11	1	28	0	0	0	64	112	0	0	103	81	*400*
4:30 PM	---	4:45 PM	2	0	15	0	0	0	73	114	0	0	128	112	*444*
4:45 PM	---	5:00 PM	3	0	13	0	0	0	65	109	0	0	114	91	*395*
5:00 PM	---	5:15 PM	7	1	13	0	0	0	73	92	0	0	120	124	*430*
5:15 PM	---	5:30 PM	15	0	20	0	0	0	62	89	0	0	121	64	*371*
5:30 PM	---	5:45 PM	5	2	14	0	0	0	74	90	0	0	74	64	*323*
5:45 PM	---	6:00 PM	8	1	8	0	0	0	58	68	0	0	71	60	*274*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	22	3	81	0	0	0	271	437	0	0	441	394	*1,649*
4:15 PM	---	5:15 PM	23	2	69	0	0	0	275	427	0	0	465	408	*1,669*
4:30 PM	---	5:30 PM	27	1	61	0	0	0	273	404	0	0	483	391	*1,640*
4:45 PM	---	5:45 PM	30	3	60	0	0	0	274	380	0	0	429	343	*1,519*
5:00 PM	---	6:00 PM	35	4	55	0	0	0	267	339	0	0	386	312	*1,398*

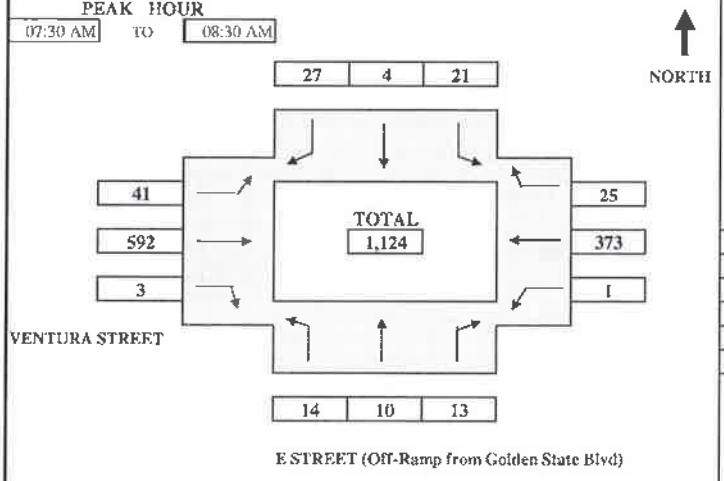
Telephone: (510)232-1271 Fax: (510)232-1272

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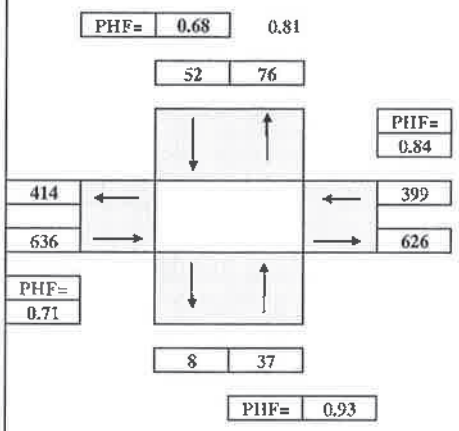
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	E STREET (Off-Ramp from Golden State Blvd)	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	VENTURA STREET	CITY:	FRESNO	FILE:	2911072-71AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	1	2	6	1	9	4	55	0	1	65	5	*149*
7:15 AM	---	7:30 AM	2	2	2	7	1	14	13	157	0	2	152	9	*361*
7:30 AM	---	7:45 AM	8	5	3	12	3	20	26	326	0	3	265	14	*685*
7:45 AM	---	8:00 AM	12	7	6	20	3	25	41	533	2	3	364	21	*1,037*
8:00 AM	---	8:15 AM	16	9	9	23	5	36	49	628	3	3	445	27	*1,253*
8:15 AM	---	8:30 AM	16	12	15	28	5	41	54	749	3	3	525	34	*1,485*
8:30 AM	---	8:45 AM	17	14	17	33	5	55	61	851	5	4	600	41	*1,703*
8:45 AM	---	9:00 AM	19	16	18	36	5	66	76	948	5	4	671	50	*1,914*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	1	2	6	1	9	4	55	0	1	65	5	*149*
7:15 AM	---	7:30 AM	2	1	0	1	0	5	9	102	0	1	87	4	*212*
7:30 AM	---	7:45 AM	6	3	1	5	2	6	13	169	0	1	113	5	*324*
7:45 AM	---	8:00 AM	4	2	3	8	0	5	15	207	2	0	99	7	*352*
8:00 AM	---	8:15 AM	4	2	3	3	2	11	8	95	1	0	81	6	*216*
8:15 AM	---	8:30 AM	0	3	6	5	0	5	5	121	0	0	80	7	*232*
8:30 AM	---	8:45 AM	1	2	2	5	0	14	7	102	2	1	75	7	*218*
8:45 AM	---	9:00 AM	2	2	1	3	0	11	15	97	0	0	71	9	*211*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	12	7	6	20	3	25	41	533	2	3	364	21	*1,037*
7:15 AM	---	8:15 AM	16	8	7	17	4	27	45	573	3	2	380	22	*1,104*
7:30 AM	---	8:30 AM	14	10	13	21	4	27	41	592	3	1	373	25	*1,124*
7:45 AM	---	8:45 AM	9	9	14	21	2	35	35	525	5	1	335	27	*1,018*
8:00 AM	---	9:00 AM	7	9	12	16	2	41	35	415	3	1	307	29	*877*

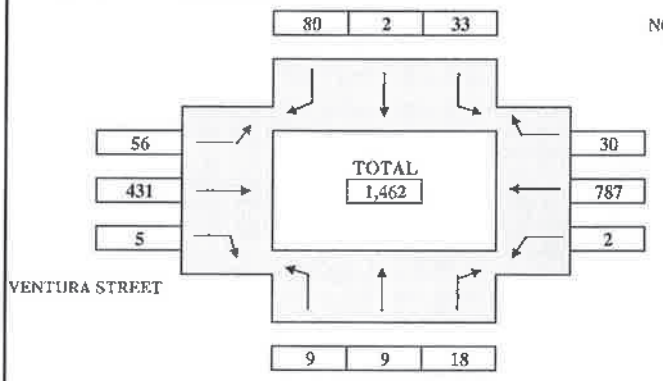
Telephone: (510)232-1271 Fax: (510)232-1272

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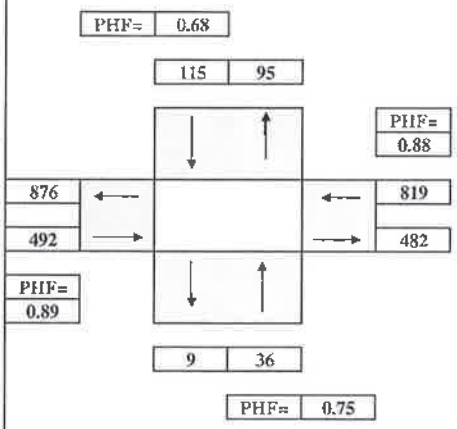
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	E STREET (Off-Ramp from Golden State Blvd)	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	VENTURA STREET	CITY:	FRESNO	FILE:	2911072-71PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	3	2	4	9	1	13	17	109	1	2	190	10	*361*
4:15 PM	---	4:30 PM	3	4	8	15	2	35	34	228	3	2	353	15	*702*
4:30 PM	---	4:45 PM	9	6	12	24	3	67	54	336	4	2	556	25	*1,098*
4:45 PM	---	5:00 PM	12	7	18	32	3	78	60	449	5	4	747	36	*1,451*
5:00 PM	---	5:15 PM	12	11	22	42	3	93	73	540	6	4	977	40	*1,823*
5:15 PM	---	5:30 PM	14	11	23	44	3	107	84	638	6	4	1,147	44	*2,125*
5:30 PM	---	5:45 PM	17	13	24	47	3	116	89	736	6	4	1,273	51	*2,379*
5:45 PM	---	6:00 PM	21	14	25	57	3	126	94	807	6	5	1,390	55	*2,603*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	3	2	4	9	1	13	17	109	1	2	190	10	*361*
4:15 PM	---	4:30 PM	0	2	4	6	1	22	17	119	2	0	163	5	*341*
4:30 PM	---	4:45 PM	6	2	4	9	1	32	20	108	1	0	203	10	*396*
4:45 PM	---	5:00 PM	3	1	6	8	0	11	6	113	1	2	191	11	*353*
5:00 PM	---	5:15 PM	0	4	4	10	0	15	13	91	1	0	230	4	*372*
5:15 PM	---	5:30 PM	2	0	1	2	0	14	11	98	0	0	170	4	*302*
5:30 PM	---	5:45 PM	3	2	1	3	0	9	5	98	0	0	126	7	*254*
5:45 PM	---	6:00 PM	4	1	1	10	0	10	5	71	0	1	117	4	*224*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	12	7	18	32	3	78	60	449	5	4	747	36	*1,451*
4:15 PM	---	5:15 PM	9	9	18	33	2	80	56	431	5	2	787	30	*1,462*
4:30 PM	---	5:30 PM	11	7	15	29	1	72	50	410	3	2	794	29	*1,423*
4:45 PM	---	5:45 PM	8	7	12	23	0	49	35	400	2	2	717	26	*1,281*
5:00 PM	---	6:00 PM	9	7	7	25	0	48	34	358	1	1	643	19	*1,152*

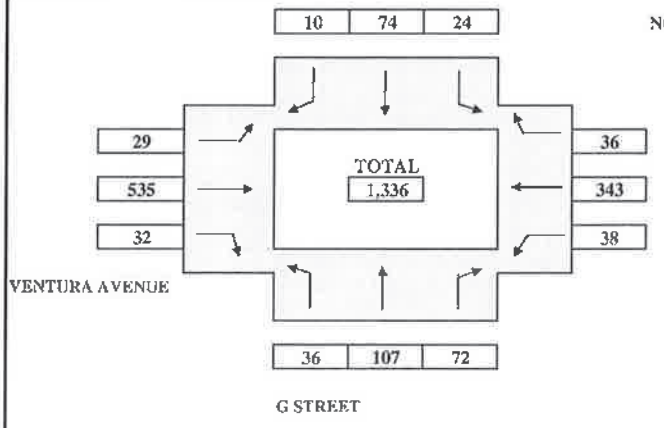
Telephone: (510)232-1271 Fax: (510)232-1272

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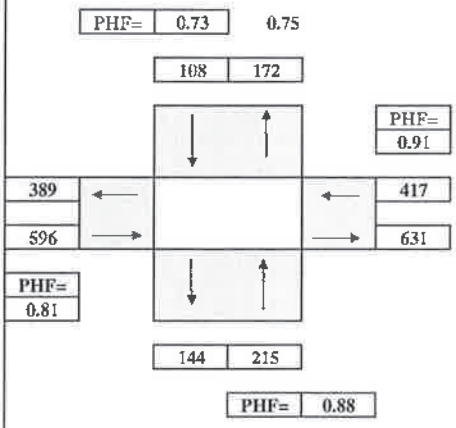
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	G STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	VENTURA AVENUE	CITY:	FRESNO	FILE:	2911072-51AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	12	12	8	4	11	2	2	55	8	7	62	6	*189*
7:15 AM	---	7:30 AM	17	35	19	7	21	8	5	166	13	19	154	11	*475*
7:30 AM	---	7:45 AM	27	60	33	15	38	10	19	323	16	25	252	21	*839*
7:45 AM	---	8:00 AM	41	90	50	20	65	14	26	491	24	35	341	29	*1,226*
8:00 AM	---	8:15 AM	47	112	71	25	83	16	32	592	32	45	424	39	*1,518*
8:15 AM	---	8:30 AM	53	142	91	31	95	18	34	701	45	57	497	47	*1,811*
8:30 AM	---	8:45 AM	61	162	94	41	118	22	41	814	54	81	583	48	*2,119*
8:45 AM	---	9:00 AM	67	177	111	45	122	25	45	887	62	92	643	52	*2,328*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	12	12	8	4	11	2	2	55	8	7	62	6	*189*
7:15 AM	---	7:30 AM	5	23	11	3	10	6	3	111	5	12	92	5	*286*
7:30 AM	---	7:45 AM	10	25	14	8	17	2	14	157	3	6	98	10	*364*
7:45 AM	---	8:00 AM	14	30	17	5	27	4	7	168	8	10	89	8	*387*
8:00 AM	---	8:15 AM	6	22	21	5	18	2	6	101	8	10	83	10	*292*
8:15 AM	---	8:30 AM	6	30	20	6	12	2	2	109	13	12	73	8	*293*
8:30 AM	---	8:45 AM	8	20	3	10	23	4	7	113	9	24	86	1	*308*
8:45 AM	---	9:00 AM	6	15	17	4	4	3	4	73	8	11	60	4	*209*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	41	90	50	20	65	14	26	491	24	35	341	29	*1,226*
7:15 AM	---	8:15 AM	35	100	63	21	72	14	30	537	24	38	362	33	*1,329*
7:30 AM	---	8:30 AM	36	107	72	24	74	10	29	535	32	38	343	36	*1,336*
7:45 AM	---	8:45 AM	34	102	61	26	80	12	22	491	38	56	331	27	*1,280*
8:00 AM	---	9:00 AM	26	87	61	25	57	11	19	396	38	57	302	23	*1,102*

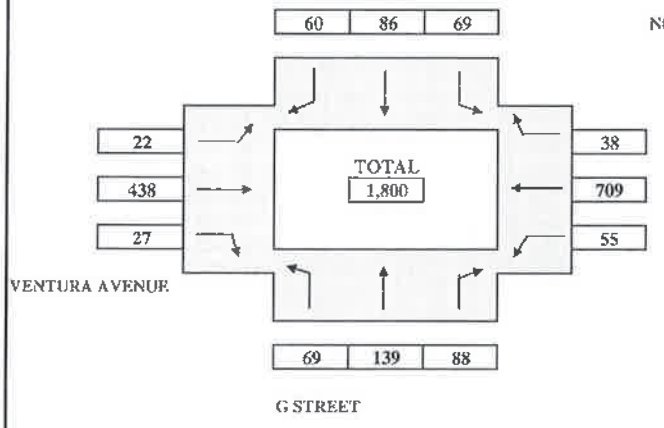
Telephone: (510)232-1271 Fax: (510)232-1272

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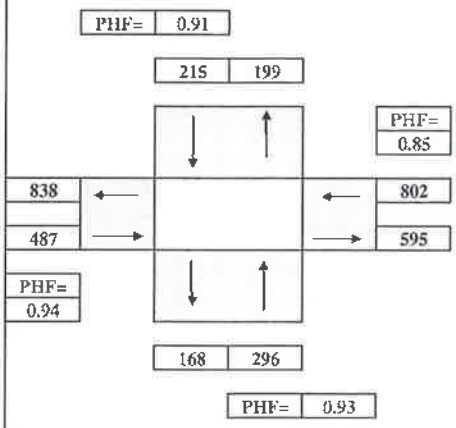
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	G STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	VENTURA AVENUE	CITY:	FRESNO	FILE:	2911072-51PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	19	29	28	9	18	9	5	101	9	17	165	13	*422*
4:15 PM	---	4:30 PM	42	63	45	22	35	25	9	212	16	30	304	20	*823*
4:30 PM	---	4:45 PM	55	94	70	40	61	38	13	323	20	44	488	32	*1,278*
4:45 PM	---	5:00 PM	73	124	95	65	81	52	19	437	29	55	666	39	*1,735*
5:00 PM	---	5:15 PM	88	168	116	78	104	69	27	539	36	72	874	51	*2,222*
5:15 PM	---	5:30 PM	95	190	128	93	120	86	34	639	52	87	1,023	64	*2,611*
5:30 PM	---	5:45 PM	111	208	140	102	131	96	41	734	56	95	1,149	72	*2,935*
5:45 PM	---	6:00 PM	122	220	157	111	142	98	43	814	62	111	1,251	77	*3,208*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	19	29	28	9	18	9	5	101	9	17	165	13	*422*
4:15 PM	---	4:30 PM	23	34	17	13	17	16	4	111	7	13	139	7	*401*
4:30 PM	---	4:45 PM	13	31	25	18	26	13	4	111	4	14	184	12	*455*
4:45 PM	---	5:00 PM	18	30	25	25	20	14	6	114	9	11	178	7	*457*
5:00 PM	---	5:15 PM	15	44	21	13	23	17	8	102	7	17	208	12	*487*
5:15 PM	---	5:30 PM	7	22	12	15	16	17	7	100	16	15	149	13	*389*
5:30 PM	---	5:45 PM	16	18	12	9	11	10	7	95	4	8	126	8	*324*
5:45 PM	---	6:00 PM	11	12	17	9	11	2	2	80	6	16	102	5	*273*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	73	124	95	65	81	52	19	437	29	55	666	39	*1,735*
4:15 PM	---	5:15 PM	69	139	88	69	86	60	22	438	27	55	709	38	*1,800*
4:30 PM	---	5:30 PM	53	127	83	71	85	61	25	427	36	57	719	44	*1,788*
4:45 PM	---	5:45 PM	56	114	70	62	70	58	28	411	36	51	661	40	*1,657*
5:00 PM	---	6:00 PM	49	96	62	46	61	46	24	377	33	56	585	38	*1,473*

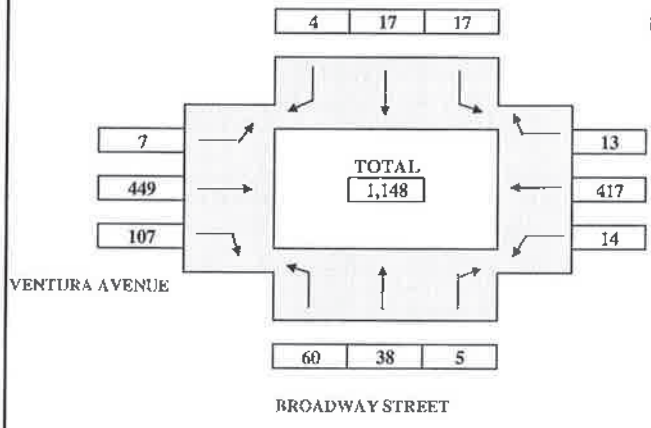
Telephone: (510)232-1271 Fax: (510)232-1272

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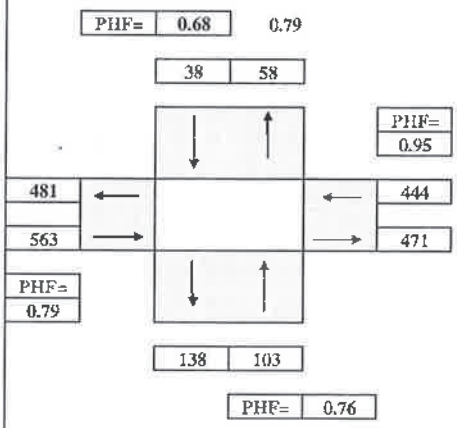
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	VENTURA AVENUE	CITY:	FRESNO	FILE:	2911072-50AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	5	4	0	1	2	0	0	55	20	2	63	1	*153*
7:15 AM	---	7:30 AM	20	6	1	7	5	0	1	168	50	2	160	4	*424*
7:30 AM	---	7:45 AM	37	13	2	13	9	0	2	290	84	3	268	5	*726*
7:45 AM	---	8:00 AM	54	29	3	20	13	1	4	432	118	5	367	8	*1,054*
8:00 AM	---	8:15 AM	67	37	4	23	15	3	5	510	137	10	472	11	*1,294*
8:15 AM	---	8:30 AM	80	44	6	24	22	4	8	617	157	16	577	17	*1,572*
8:30 AM	---	8:45 AM	84	48	6	29	29	6	12	708	180	19	657	19	*1,797*
8:45 AM	---	9:00 AM	92	51	9	30	39	7	12	810	204	25	735	22	*2,036*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	5	4	0	1	2	0	0	55	20	2	63	1	*153*
7:15 AM	---	7:30 AM	15	2	1	6	3	0	1	113	30	0	97	3	*271*
7:30 AM	---	7:45 AM	17	7	1	6	4	0	1	122	34	1	108	1	*302*
7:45 AM	---	8:00 AM	17	16	1	7	4	1	2	142	34	2	99	3	*328*
8:00 AM	---	8:15 AM	13	8	1	3	2	2	1	78	19	5	105	3	*240*
8:15 AM	---	8:30 AM	13	7	2	1	7	1	3	107	20	6	105	6	*278*
8:30 AM	---	8:45 AM	4	4	0	5	7	2	4	91	23	3	80	2	*225*
8:45 AM	---	9:00 AM	8	3	3	1	10	1	0	102	24	6	78	3	*239*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	54	29	3	20	13	1	4	432	118	5	367	8	*1,054*
7:15 AM	---	8:15 AM	62	33	4	22	13	3	5	455	117	8	409	10	*1,141*
7:30 AM	---	8:30 AM	60	38	5	17	17	4	7	449	107	14	417	13	*1,148*
7:45 AM	---	8:45 AM	47	35	4	16	20	6	10	418	96	16	389	14	*1,071*
8:00 AM	---	9:00 AM	38	22	6	10	26	6	8	378	86	20	368	14	*982*

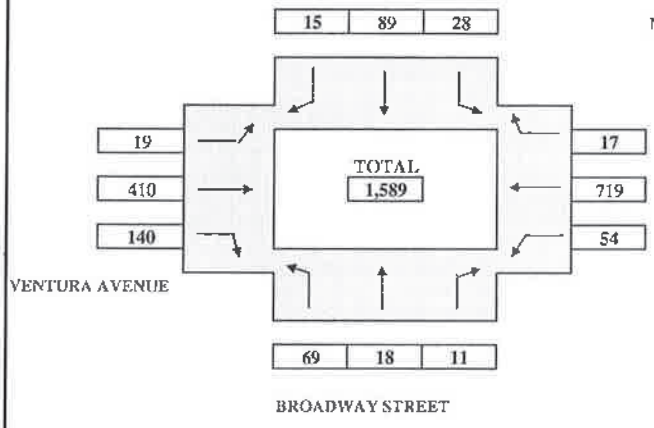
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

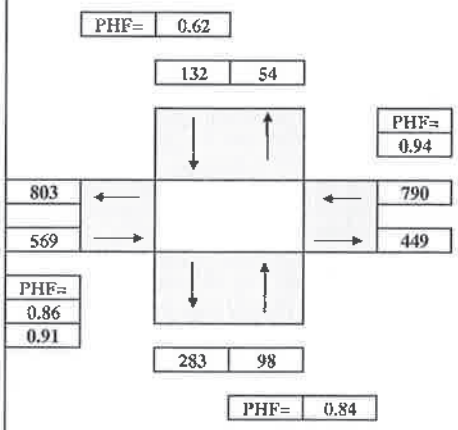
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	VENTURA AVENUE	CITY:	FRESNO	FILE:	2911072-50PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	18	3	2	4	26	5	7	128	31	12	140	6	*382*
4:15 PM	---	4:30 PM	33	9	4	10	39	10	10	221	63	24	317	10	*750*
4:30 PM	---	4:45 PM	52	14	9	16	65	13	18	330	101	44	491	13	*1,166*
4:45 PM	---	5:00 PM	66	17	11	22	77	15	23	446	137	52	666	21	*1,553*
5:00 PM	---	5:15 PM	87	21	13	32	115	20	26	538	171	66	859	23	*1,971*
5:15 PM	---	5:30 PM	106	27	14	36	124	21	35	645	205	71	1,012	29	*2,325*
5:30 PM	---	5:45 PM	120	27	15	39	139	24	38	714	240	78	1,150	32	*2,616*
5:45 PM	---	6:00 PM	129	28	15	40	146	30	39	800	275	91	1,281	38	*2,912*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	18	3	2	4	26	5	7	128	31	12	140	6	*382*
4:15 PM	---	4:30 PM	15	6	2	6	13	5	3	93	32	12	177	4	*368*
4:30 PM	---	4:45 PM	19	5	5	6	26	3	8	109	38	20	174	3	*416*
4:45 PM	---	5:00 PM	14	3	2	6	12	2	5	116	36	8	175	8	*387*
5:00 PM	---	5:15 PM	21	4	2	10	38	5	3	92	34	14	193	2	*418*
5:15 PM	---	5:30 PM	19	6	1	4	9	1	9	107	34	5	153	6	*354*
5:30 PM	---	5:45 PM	14	0	1	3	15	3	3	69	35	7	138	3	*291*
5:45 PM	---	6:00 PM	9	1	0	1	7	6	1	86	35	13	131	6	*296*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	66	17	11	22	77	15	23	446	137	52	666	21	*1,553*
4:15 PM	---	5:15 PM	69	18	11	28	89	15	19	410	140	54	719	17	*1,589*
4:30 PM	---	5:30 PM	73	18	10	26	85	11	25	424	142	47	695	19	*1,575*
4:45 PM	---	5:45 PM	68	13	6	23	74	11	20	384	139	34	659	19	*1,450*
5:00 PM	---	6:00 PM	63	11	4	18	69	15	16	354	138	39	615	17	*1,359*

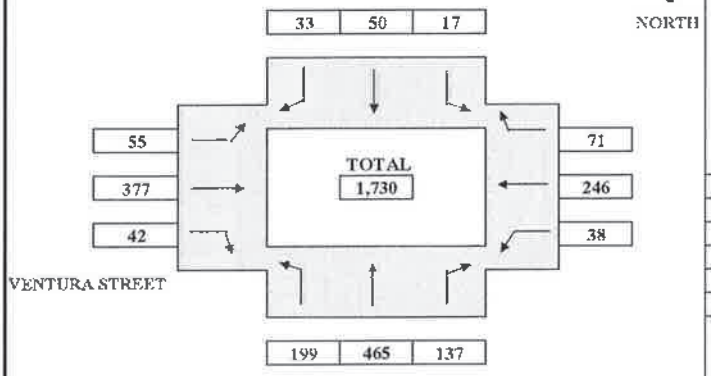
Telephone: (510)232-1271 Fax: (510)232-1272

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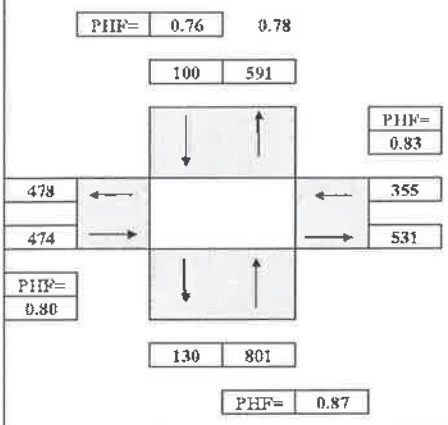
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	VENTURA STREET	CITY:	FRESNO	FILE:	2911072-17AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	20	73	22	1	10	2	5	47	5	5	44	8	*242*
7:15 AM	---	7:30 AM	73	165	60	5	14	5	15	136	17	8	96	21	*615*
7:30 AM	---	7:45 AM	118	272	87	6	26	10	34	235	28	19	166	34	*1,035*
7:45 AM	---	8:00 AM	171	412	124	10	39	14	50	354	42	26	219	48	*1,509*
8:00 AM	---	8:15 AM	219	540	164	17	49	29	64	429	47	39	287	74	*1,958*
8:15 AM	---	8:30 AM	272	630	197	22	64	38	70	513	59	46	342	92	*2,345*
8:30 AM	---	8:45 AM	306	701	212	30	84	43	77	595	63	50	392	113	*2,666*
8:45 AM	---	9:00 AM	333	773	237	37	96	47	86	670	74	60	449	129	*2,991*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	20	73	22	1	10	2	5	47	5	5	44	8	*242*
7:15 AM	---	7:30 AM	53	92	38	4	4	3	10	89	12	3	52	13	*373*
7:30 AM	---	7:45 AM	45	107	27	1	12	5	19	99	11	11	70	13	*420*
7:45 AM	---	8:00 AM	53	140	37	4	13	4	16	119	14	7	53	14	*474*
8:00 AM	---	8:15 AM	48	128	40	7	10	15	14	75	5	13	68	26	*449*
8:15 AM	---	8:30 AM	53	90	33	5	15	9	6	84	12	7	55	18	*387*
8:30 AM	---	8:45 AM	34	71	15	8	20	5	7	82	4	4	50	21	*321*
8:45 AM	---	9:00 AM	27	72	25	7	12	4	9	75	11	10	57	16	*325*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	171	412	124	10	39	14	50	354	42	26	219	48	*1,509*
7:15 AM	---	8:15 AM	199	467	142	16	39	27	59	382	42	34	243	66	*1,716*
7:30 AM	---	8:30 AM	199	465	137	17	50	33	55	377	42	38	246	71	*1,730*
7:45 AM	---	8:45 AM	188	429	125	24	58	33	43	360	35	31	226	79	*1,631*
8:00 AM	---	9:00 AM	162	361	113	27	57	33	36	316	32	34	230	81	*1,482*

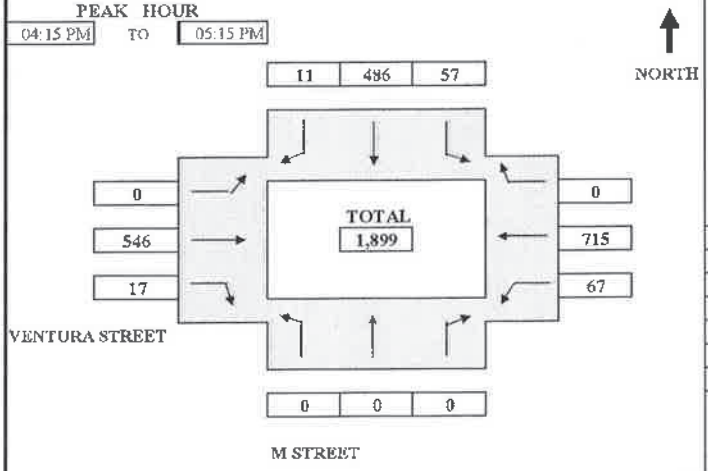
Telephone: (510)232-1271 Fax: (510)232-1272

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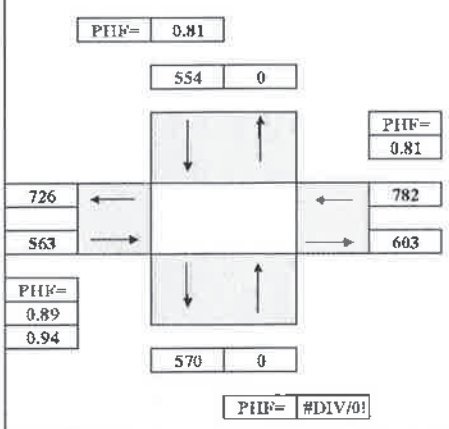
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	M STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	VENTURA STREET	CITY:	FRESNO	FILE:	2911072-21PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	16	135	4	0	142	16	30	169	0	*512*
4:15 PM	---	4:30 PM	0	0	0	27	197	7	0	269	23	43	328	0	*894*
4:30 PM	---	4:45 PM	0	0	0	50	340	11	0	396	27	68	497	0	*1,389*
4:45 PM	---	5:00 PM	0	0	0	58	466	13	0	540	31	80	660	0	*1,848*
5:00 PM	---	5:15 PM	0	0	0	73	621	15	0	688	33	97	884	0	*2,411*
5:15 PM	---	5:30 PM	0	0	0	88	709	21	0	785	34	114	998	0	*2,749*
5:30 PM	---	5:45 PM	0	0	0	97	787	22	0	882	41	141	1,159	0	*3,129*
5:45 PM	---	6:00 PM	0	0	0	100	838	29	0	977	43	156	1,288	0	*3,431*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	16	135	4	0	142	16	30	169	0	*512*
4:15 PM	---	4:30 PM	0	0	0	11	62	3	0	127	7	13	159	0	*382*
4:30 PM	---	4:45 PM	0	0	0	23	143	4	0	127	4	25	169	0	*495*
4:45 PM	---	5:00 PM	0	0	0	8	126	2	0	144	4	12	163	0	*459*
5:00 PM	---	5:15 PM	0	0	0	15	155	2	0	148	2	17	224	0	*563*
5:15 PM	---	5:30 PM	0	0	0	15	88	6	0	97	1	17	114	0	*338*
5:30 PM	---	5:45 PM	0	0	0	9	78	1	0	97	7	27	161	0	*380*
5:45 PM	---	6:00 PM	0	0	0	3	51	7	0	95	2	15	129	0	*302*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	58	466	13	0	540	31	80	660	0	*1,848*
4:15 PM	---	5:15 PM	0	0	0	57	486	11	0	546	17	67	715	0	*1,899*
4:30 PM	---	5:30 PM	0	0	0	61	512	14	0	516	11	71	670	0	*1,855*
4:45 PM	---	5:45 PM	0	0	0	47	447	11	0	486	14	73	662	0	*1,740*
5:00 PM	---	6:00 PM	0	0	0	42	372	16	0	437	12	76	628	0	*1,583*

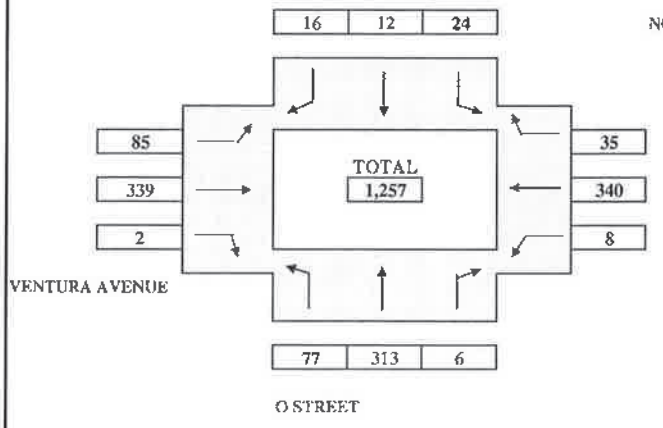
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

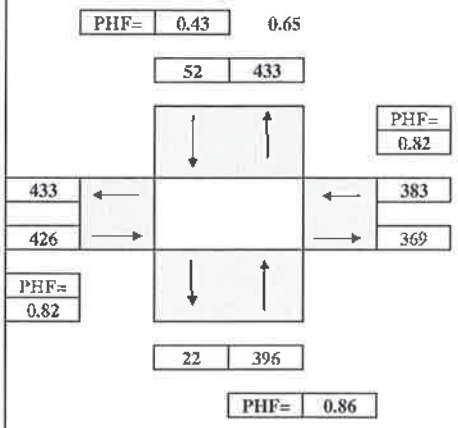
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	O STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	VENTURA AVENUE	CITY:	FRESNO	FILE:	2911072-49AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	10	45	3	2	3	0	8	46	0	0	59	5	*181*
7:15 AM	---	7:30 AM	24	114	9	3	6	2	16	127	3	2	118	12	*436*
7:30 AM	---	7:45 AM	47	198	11	5	9	4	41	229	5	5	223	21	*798*
7:45 AM	---	8:00 AM	58	300	13	17	13	6	68	332	5	7	313	34	*1,166*
8:00 AM	---	8:15 AM	79	366	14	21	15	7	93	394	5	9	389	39	*1,431*
8:15 AM	---	8:30 AM	101	427	15	27	18	18	101	466	5	10	458	47	*1,693*
8:30 AM	---	8:45 AM	119	486	18	38	26	29	117	571	7	13	527	54	*2,005*
8:45 AM	---	9:00 AM	136	525	20	46	32	36	134	658	9	14	603	62	*2,275*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	10	45	3	2	3	0	8	46	0	0	59	5	*181*
7:15 AM	---	7:30 AM	14	69	6	1	3	2	8	81	3	2	59	7	*255*
7:30 AM	---	7:45 AM	23	84	2	2	3	2	25	102	2	3	105	9	*362*
7:45 AM	---	8:00 AM	11	102	2	12	4	2	27	103	0	2	90	13	*368*
8:00 AM	---	8:15 AM	21	66	1	4	2	1	25	62	0	2	76	5	*265*
8:15 AM	---	8:30 AM	22	61	1	6	3	11	8	72	0	1	69	8	*262*
8:30 AM	---	8:45 AM	18	59	3	11	8	11	16	105	2	3	69	7	*312*
8:45 AM	---	9:00 AM	17	39	2	8	6	7	17	87	2	1	76	8	*270*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	58	300	13	17	13	6	68	332	5	7	313	34	*1,166*
7:15 AM	---	8:15 AM	69	321	11	19	12	7	85	348	5	9	330	34	*1,250*
7:30 AM	---	8:30 AM	77	313	6	24	12	16	85	339	2	8	340	35	*1,257*
7:45 AM	---	8:45 AM	72	288	7	33	17	25	76	342	2	8	304	33	*1,207*
8:00 AM	---	9:00 AM	78	225	7	29	19	30	66	326	4	7	290	28	*1,109*

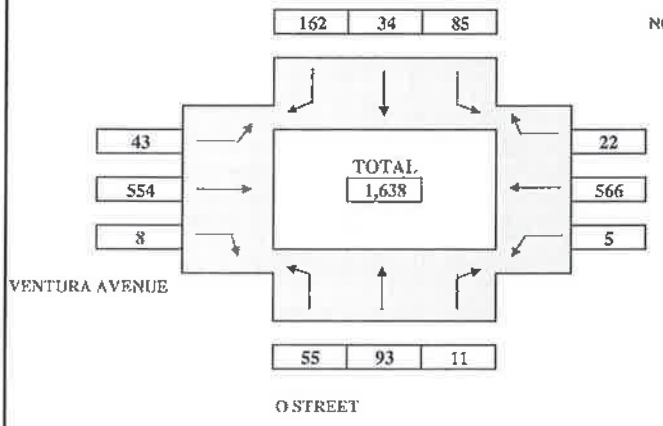
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B.A.Y.M.E.T.R.I.C.S.

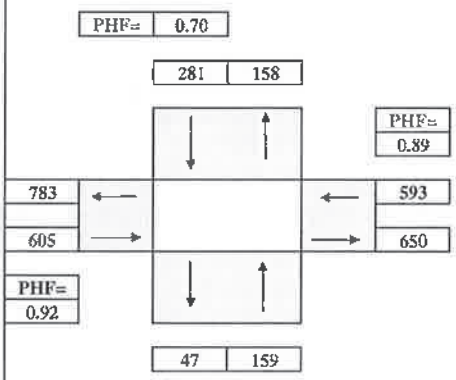
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	O STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	VENTURA AVENUE	CITY:	FRESNO	FILE:	2911072-49PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	22	23	4	12	14	41	8	151	1	2	138	10	*426*
4:15 PM	---	4:30 PM	36	52	6	33	22	67	18	278	2	2	270	20	*806*
4:30 PM	---	4:45 PM	50	80	10	57	30	99	30	411	7	4	419	25	*1,222*
4:45 PM	---	5:00 PM	65	101	13	73	37	138	40	552	8	6	540	30	*1,603*
5:00 PM	---	5:15 PM	77	116	15	97	48	203	51	705	9	7	704	32	*2,064*
5:15 PM	---	5:30 PM	87	127	18	104	54	230	56	808	10	7	798	33	*2,332*
5:30 PM	---	5:45 PM	106	151	23	114	57	278	59	912	11	8	919	36	*2,674*
5:45 PM	---	6:00 PM	124	168	23	118	63	297	64	1,003	14	9	1,025	41	*2,949*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	22	23	4	12	14	41	8	151	1	2	138	10	*426*
4:15 PM	---	4:30 PM	14	29	2	21	8	26	10	127	1	0	132	10	*380*
4:30 PM	---	4:45 PM	14	28	4	24	8	32	12	133	5	2	149	5	*416*
4:45 PM	---	5:00 PM	15	21	3	16	7	39	10	141	1	2	121	5	*381*
5:00 PM	---	5:15 PM	12	15	2	24	11	65	11	153	1	1	164	2	*461*
5:15 PM	---	5:30 PM	10	11	3	7	6	27	5	103	1	0	94	1	*268*
5:30 PM	---	5:45 PM	19	24	5	10	3	48	3	104	1	1	121	3	*342*
5:45 PM	---	6:00 PM	18	17	0	4	6	19	5	91	3	1	106	5	*275*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	65	101	13	73	37	138	40	552	8	6	540	30	*1,603*
4:15 PM	---	5:15 PM	55	93	11	85	34	162	43	554	8	5	566	22	*1,638*
4:30 PM	---	5:30 PM	51	75	12	71	32	163	38	530	8	5	528	13	*1,526*
4:45 PM	---	5:45 PM	56	71	13	57	27	179	29	501	4	4	500	11	*1,452*
5:00 PM	---	6:00 PM	59	67	10	45	26	159	24	451	6	3	485	11	*1,346*

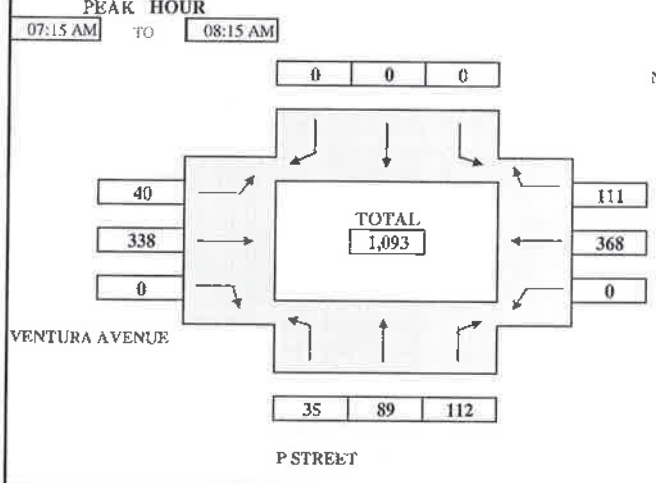
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B.A.Y.M.E.T.R.I.C.S.

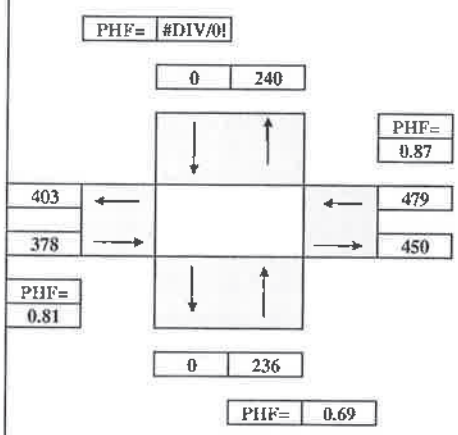
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	P STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	VENTURA AVENUE	CITY:	FRESNO	FILE:	2911072-68AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	10	22	0	0	0	4	48	0	0	65	16	*165*
7:15 AM	---	7:30 AM	10	23	40	0	0	0	13	126	0	0	132	40	*384*
7:30 AM	---	7:45 AM	21	41	64	0	0	0	23	222	0	0	246	64	*681*
7:45 AM	---	8:00 AM	33	77	102	0	0	0	35	326	0	0	350	93	*1,016*
8:00 AM	---	8:15 AM	35	99	134	0	0	0	44	386	0	0	433	127	*1,258*
8:15 AM	---	8:30 AM	38	118	156	0	0	0	53	454	0	0	511	143	*1,473*
8:30 AM	---	8:45 AM	39	126	175	0	0	0	67	557	0	0	589	152	*1,705*
8:45 AM	---	9:00 AM	44	147	194	0	0	0	84	637	0	0	673	171	*1,950*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	10	22	0	0	0	4	48	0	0	65	16	*165*
7:15 AM	---	7:30 AM	10	13	18	0	0	0	9	78	0	0	67	24	*219*
7:30 AM	---	7:45 AM	11	18	24	0	0	0	10	96	0	0	114	24	*297*
7:45 AM	---	8:00 AM	12	36	38	0	0	0	12	104	0	0	104	29	*335*
8:00 AM	---	8:15 AM	2	22	32	0	0	0	9	60	0	0	83	34	*242*
8:15 AM	---	8:30 AM	3	19	22	0	0	0	9	68	0	0	78	16	*215*
8:30 AM	---	8:45 AM	1	8	19	0	0	0	14	103	0	0	78	9	*232*
8:45 AM	---	9:00 AM	5	21	19	0	0	0	17	80	0	0	84	19	*245*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	33	77	102	0	0	0	35	326	0	0	350	93	*1,016*
7:15 AM	---	8:15 AM	35	89	112	0	0	0	40	338	0	0	368	111	*1,093*
7:30 AM	---	8:30 AM	28	95	116	0	0	0	40	328	0	0	379	103	*1,089*
7:45 AM	---	8:45 AM	18	85	111	0	0	0	44	335	0	0	343	88	*1,024*
8:00 AM	---	9:00 AM	11	70	92	0	0	0	49	311	0	0	323	78	*934*

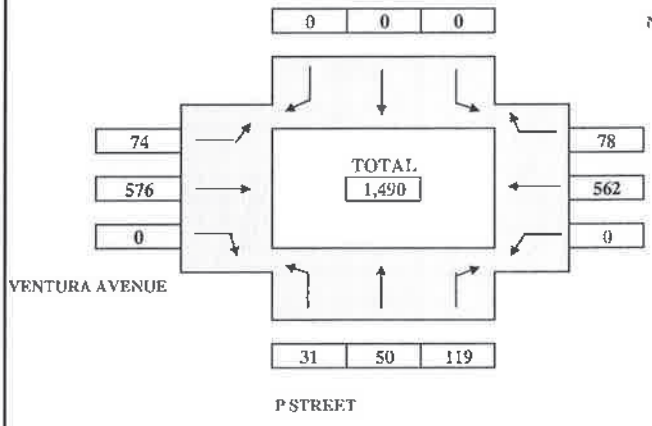
Telephone: (510)232-1271 Fax: (510)232-1272

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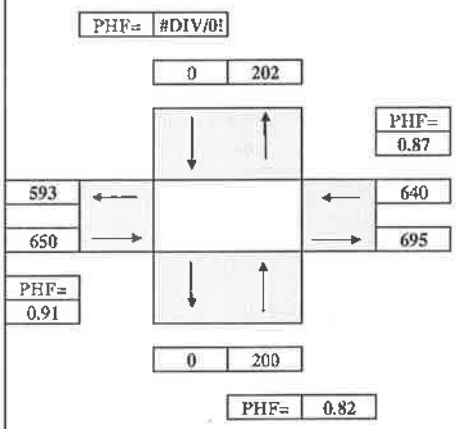
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	P STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	VENTURA AVENUE	CITY:	FRESNO	FILE:	2911072-68PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	3	11	31	0	0	0	17	150	0	0	147	16	*375*
4:15 PM	---	4:30 PM	8	19	63	0	0	0	38	279	0	0	284	43	*734*
4:30 PM	---	4:45 PM	30	40	81	0	0	0	58	420	0	0	418	57	*1,104*
4:45 PM	---	5:00 PM	33	49	107	0	0	0	82	556	0	0	543	77	*1,447*
5:00 PM	---	5:15 PM	34	61	150	0	0	0	91	726	0	0	709	94	*1,865*
5:15 PM	---	5:30 PM	34	67	169	0	0	0	97	833	0	0	804	103	*2,107*
5:30 PM	---	5:45 PM	34	71	199	0	0	0	101	948	0	0	929	113	*2,395*
5:45 PM	---	6:00 PM	35	75	224	0	0	0	104	1,040	0	0	1,040	117	*2,635*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	3	11	31	0	0	0	17	150	0	0	147	16	*375*
4:15 PM	---	4:30 PM	5	8	32	0	0	0	21	129	0	0	137	27	*359*
4:30 PM	---	4:45 PM	22	21	18	0	0	0	20	141	0	0	134	14	*370*
4:45 PM	---	5:00 PM	3	9	26	0	0	0	24	136	0	0	125	20	*343*
5:00 PM	---	5:15 PM	1	12	43	0	0	0	9	170	0	0	166	17	*418*
5:15 PM	---	5:30 PM	0	6	19	0	0	0	6	107	0	0	95	9	*242*
5:30 PM	---	5:45 PM	0	4	30	0	0	0	4	115	0	0	125	10	*288*
5:45 PM	---	6:00 PM	1	4	25	0	0	0	3	92	0	0	111	4	*240*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	33	49	107	0	0	0	82	556	0	0	543	77	*1,447*
4:15 PM	---	5:15 PM	31	50	119	0	0	0	74	576	0	0	562	78	*1,490*
4:30 PM	---	5:30 PM	26	48	106	0	0	0	59	554	0	0	520	60	*1,373*
4:45 PM	---	5:45 PM	4	31	118	0	0	0	43	528	0	0	511	56	*1,291*
5:00 PM	---	6:00 PM	2	26	117	0	0	0	22	484	0	0	497	40	*1,188*

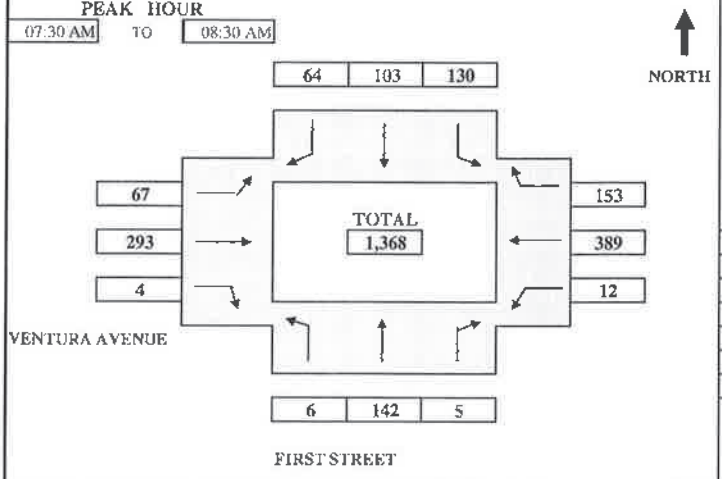
Telephone: (510)232-1271 Fax: (510)232-1272

P

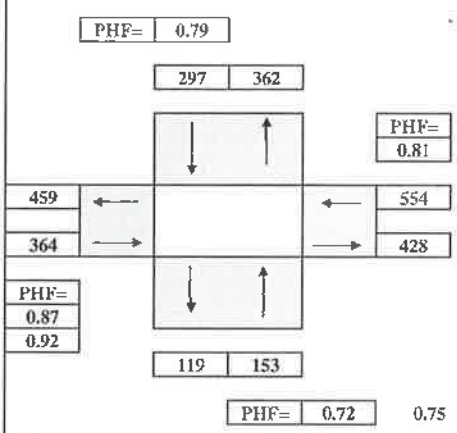
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	FIRST STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	VENTURA AVENUE	CITY:	FRESNO	FILE:	2911072-69AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA														
7:00 AM	7:15 AM	1	26	0	13	16	20	14	38	3	5	50	28	*214*
7:15 AM	7:30 AM	4	67	0	32	31	34	24	99	3	7	106	51	*458*
7:30 AM	7:45 AM	6	111	1	76	59	56	40	181	4	14	230	90	*868*
7:45 AM	8:00 AM	8	125	4	110	78	67	61	252	5	16	351	135	*1,212*
8:00 AM	8:15 AM	9	174	5	137	109	90	76	314	7	19	415	171	*1,526*
8:15 AM	8:30 AM	10	209	5	162	134	98	91	392	7	19	495	204	*1,826*
8:30 AM	8:45 AM	10	261	6	183	155	111	103	482	10	26	564	256	*2,167*
8:45 AM	9:00 AM	11	294	6	210	183	127	120	552	12	28	642	297	*2,482*
TOTAL BY PERIOD														
7:00 AM	7:15 AM	1	26	0	13	16	20	14	38	3	5	50	28	*214*
7:15 AM	7:30 AM	3	41	0	19	15	14	10	61	0	2	56	23	*244*
7:30 AM	7:45 AM	2	44	1	44	28	22	16	82	1	7	124	39	*410*
7:45 AM	8:00 AM	2	14	3	34	19	11	21	71	1	2	121	45	*344*
8:00 AM	8:15 AM	1	49	1	27	31	23	15	62	2	3	64	36	*314*
8:15 AM	8:30 AM	1	35	0	25	25	8	15	78	0	0	80	33	*300*
8:30 AM	8:45 AM	0	52	1	21	21	13	12	90	3	7	69	52	*341*
8:45 AM	9:00 AM	1	33	0	27	28	16	17	70	2	2	78	41	*315*
HOURLY TOTALS														
7:00 AM	8:00 AM	8	125	4	110	78	67	61	252	5	16	351	135	*1,212*
7:15 AM	8:15 AM	8	148	5	124	93	70	62	276	4	14	365	143	*1,312*
7:30 AM	8:30 AM	6	142	5	130	103	64	67	293	4	12	389	153	*1,368*
7:45 AM	8:45 AM	4	150	5	107	96	55	63	301	6	12	334	166	*1,299*
8:00 AM	9:00 AM	3	169	2	100	105	60	59	300	7	12	291	162	*1,270*

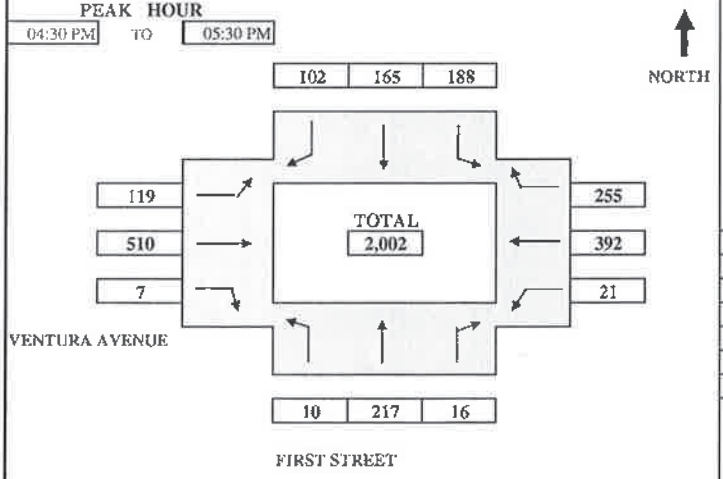
Telephone: (510)232-1271 Fax: (510)232-1272

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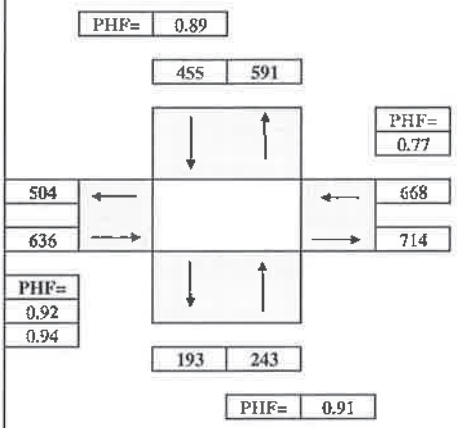
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	FIRST STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	VENTURA AVENUE	CITY:	FRESNO	FILE:	2911072-69PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



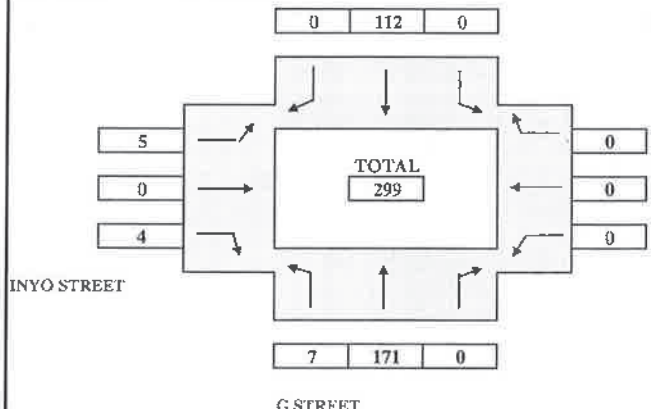
TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	1	53	1	38	46	20	37	135	1	3	114	41	*490*
4:15 PM	---	4:30 PM	4	100	2	84	100	41	61	245	4	8	198	89	*936*
4:30 PM	---	4:45 PM	6	157	6	128	134	62	83	383	4	12	293	144	*1,412*
4:45 PM	---	5:00 PM	9	200	12	181	187	84	114	496	6	18	374	215	*1,896*
5:00 PM	---	5:15 PM	12	259	17	224	217	115	147	628	10	25	498	301	*2,453*
5:15 PM	---	5:30 PM	14	317	18	272	265	143	180	755	11	29	590	344	*2,938*
5:30 PM	---	5:45 PM	17	362	20	317	309	162	207	847	13	33	675	398	*3,360*
5:45 PM	---	6:00 PM	17	400	24	354	346	175	221	950	17	37	766	447	*3,754*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	1	53	1	38	46	20	37	135	1	3	114	41	*490*
4:15 PM	---	4:30 PM	3	47	1	46	54	21	24	110	3	5	84	48	*446*
4:30 PM	---	4:45 PM	2	57	4	44	34	21	22	138	0	4	95	55	*476*
4:45 PM	---	5:00 PM	3	43	6	53	53	22	31	113	2	6	81	71	*484*
5:00 PM	---	5:15 PM	3	59	5	43	30	31	33	132	4	7	124	86	*557*
5:15 PM	---	5:30 PM	2	58	1	48	48	28	33	127	1	4	92	43	*485*
5:30 PM	---	5:45 PM	3	45	2	45	44	19	27	92	2	4	85	54	*422*
5:45 PM	---	6:00 PM	0	38	4	37	37	13	14	103	4	4	91	49	*394*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	9	200	12	181	187	84	114	496	6	18	374	215	*1,896*
4:15 PM	---	5:15 PM	11	206	16	186	171	95	110	493	9	22	384	260	*1,963*
4:30 PM	---	5:30 PM	10	217	16	188	165	102	119	510	7	21	392	255	*2,002*
4:45 PM	---	5:45 PM	11	205	14	189	175	100	124	464	9	21	382	254	*1,948*
5:00 PM	---	6:00 PM	8	200	12	173	159	91	107	454	11	19	392	232	*1,858*

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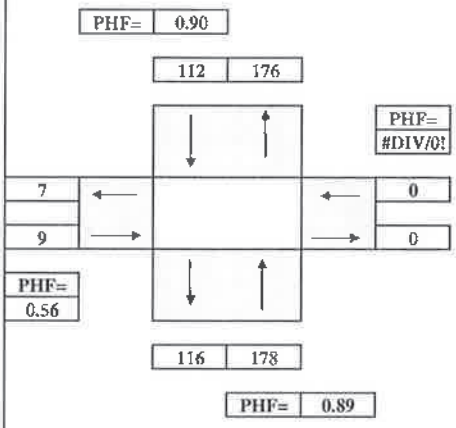
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	G STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	INYO STREET	CITY:	FRESNO	FILE:	2911072-76AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	2	23	0	0	13	1	0	0	0	0	0	0	*39*
7:15 AM	---	7:30 AM	2	51	0	0	32	1	0	0	0	0	0	0	*86*
7:30 AM	---	7:45 AM	3	100	0	0	63	1	1	0	0	0	0	0	*168*
7:45 AM	---	8:00 AM	3	147	0	0	94	1	2	0	1	0	0	0	*248*
8:00 AM	---	8:15 AM	6	183	0	0	120	1	4	0	1	0	0	0	*315*
8:15 AM	---	8:30 AM	9	222	0	0	144	1	5	0	4	0	0	0	*385*
8:30 AM	---	8:45 AM	12	252	0	0	165	2	5	0	4	0	0	0	*440*
8:45 AM	---	9:00 AM	13	290	0	0	188	2	7	0	5	0	0	0	*505*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	2	23	0	0	13	1	0	0	0	0	0	0	*39*
7:15 AM	---	7:30 AM	0	28	0	0	19	0	0	0	0	0	0	0	*47*
7:30 AM	---	7:45 AM	1	49	0	0	31	0	1	0	0	0	0	0	*82*
7:45 AM	---	8:00 AM	0	47	0	0	31	0	1	0	1	0	0	0	*80*
8:00 AM	---	8:15 AM	3	36	0	0	26	0	2	0	0	0	0	0	*67*
8:15 AM	---	8:30 AM	3	39	0	0	24	0	1	0	3	0	0	0	*70*
8:30 AM	---	8:45 AM	3	30	0	0	21	1	0	0	0	0	0	0	*55*
8:45 AM	---	9:00 AM	1	38	0	0	23	0	2	0	1	0	0	0	*65*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	3	147	0	0	94	1	2	0	1	0	0	0	*248*
7:15 AM	---	8:15 AM	4	160	0	0	107	0	4	0	1	0	0	0	*276*
7:30 AM	---	8:30 AM	7	171	0	0	112	0	5	0	4	0	0	0	*299*
7:45 AM	---	8:45 AM	9	152	0	0	102	1	4	0	4	0	0	0	*272*
8:00 AM	---	9:00 AM	10	143	0	0	94	1	5	0	4	0	0	0	*257*

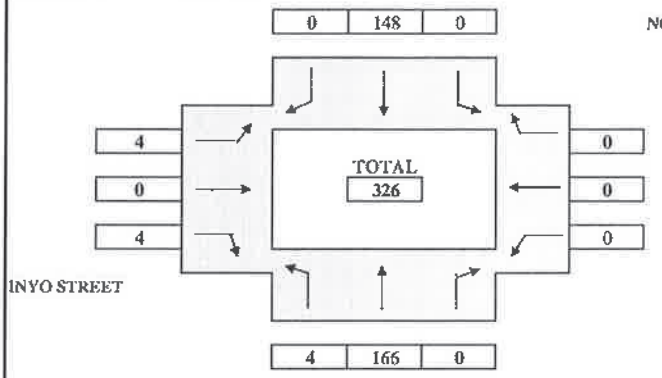
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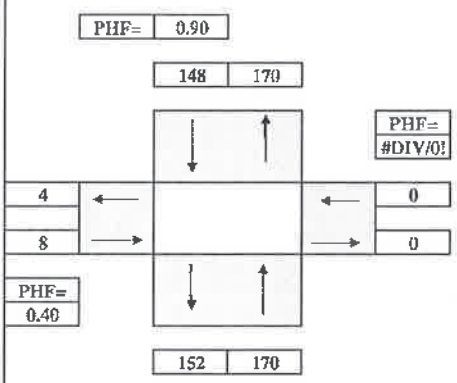
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	G STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	INYO STREET	CITY:	FRESNO	FILE:	2911072-76PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	43	0	0	40	0	0	0	2	0	0	0	*85*
4:15 PM	---	4:30 PM	2	75	0	0	81	0	0	0	3	0	0	0	*161*
4:30 PM	---	4:45 PM	2	119	0	0	122	0	1	0	3	0	0	0	*247*
4:45 PM	---	5:00 PM	2	163	0	0	147	0	1	0	4	0	0	0	*317*
5:00 PM	---	5:15 PM	4	209	0	0	188	0	4	0	6	0	0	0	*411*
5:15 PM	---	5:30 PM	7	256	0	0	208	0	4	0	8	0	0	0	*483*
5:30 PM	---	5:45 PM	7	279	0	0	227	2	4	0	8	0	0	0	*527*
5:45 PM	---	6:00 PM	8	305	0	0	243	3	4	0	9	0	0	0	*572*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	43	0	0	40	0	0	0	2	0	0	0	*85*
4:15 PM	---	4:30 PM	2	32	0	0	41	0	0	0	1	0	0	0	*76*
4:30 PM	---	4:45 PM	0	44	0	0	41	0	1	0	0	0	0	0	*86*
4:45 PM	---	5:00 PM	0	44	0	0	25	0	0	0	1	0	0	0	*70*
5:00 PM	---	5:15 PM	2	46	0	0	41	0	3	0	2	0	0	0	*94*
5:15 PM	---	5:30 PM	3	47	0	0	20	0	0	0	2	0	0	0	*72*
5:30 PM	---	5:45 PM	0	23	0	0	19	2	0	0	0	0	0	0	*44*
5:45 PM	---	6:00 PM	1	26	0	0	16	1	0	0	1	0	0	0	*45*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	2	163	0	0	147	0	1	0	4	0	0	0	*317*
4:15 PM	---	5:15 PM	4	166	0	0	148	0	4	0	4	0	0	0	*326*
4:30 PM	---	5:30 PM	5	181	0	0	127	0	4	0	5	0	0	0	*322*
4:45 PM	---	5:45 PM	5	160	0	0	105	2	3	0	5	0	0	0	*280*
5:00 PM	---	6:00 PM	6	142	0	0	96	3	3	0	5	0	0	0	*255*

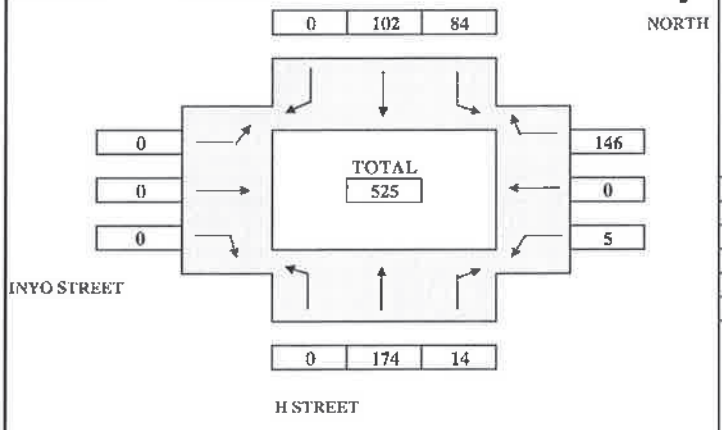
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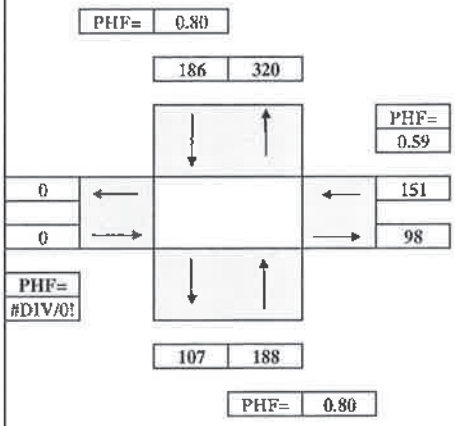
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	H STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	INYO STREET	CITY:	FRESNO	FILE:	2911072-75AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	14	3	12	15	0	0	0	0	0	0	9	*53*
7:15 AM	---	7:30 AM	0	46	6	27	32	0	0	0	0	1	0	20	*132*
7:30 AM	---	7:45 AM	0	85	8	48	55	0	0	0	0	3	0	44	*243*
7:45 AM	---	8:00 AM	0	131	13	73	88	0	0	0	0	3	0	71	*379*
8:00 AM	---	8:15 AM	0	163	18	97	110	0	0	0	0	6	0	132	*526*
8:15 AM	---	8:30 AM	0	220	20	111	134	0	0	0	0	6	0	166	*657*
8:30 AM	---	8:45 AM	0	241	21	126	159	0	0	0	0	6	0	187	*740*
8:45 AM	---	9:00 AM	0	262	22	138	185	0	0	0	0	9	0	201	*817*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	14	3	12	15	0	0	0	0	0	0	9	*53*
7:15 AM	---	7:30 AM	0	32	3	15	17	0	0	0	0	1	0	11	*79*
7:30 AM	---	7:45 AM	0	39	2	21	23	0	0	0	0	2	0	24	*111*
7:45 AM	---	8:00 AM	0	46	5	25	33	0	0	0	0	0	0	27	*136*
8:00 AM	---	8:15 AM	0	32	5	24	22	0	0	0	0	3	0	61	*147*
8:15 AM	---	8:30 AM	0	57	2	14	24	0	0	0	0	0	0	34	*131*
8:30 AM	---	8:45 AM	0	21	1	15	25	0	0	0	0	0	0	21	*83*
8:45 AM	---	9:00 AM	0	21	1	12	26	0	0	0	0	3	0	14	*77*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	131	13	73	88	0	0	0	0	3	0	71	*379*
7:15 AM	---	8:15 AM	0	149	15	85	95	0	0	0	0	6	0	123	*473*
7:30 AM	---	8:30 AM	0	174	14	84	102	0	0	0	0	5	0	146	*525*
7:45 AM	---	8:45 AM	0	156	13	78	104	0	0	0	0	3	0	143	*497*
8:00 AM	---	9:00 AM	0	131	9	65	97	0	0	0	0	6	0	130	*438*

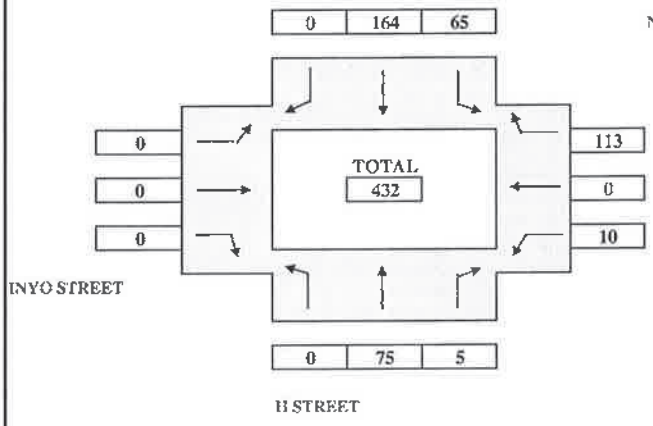
Telephone: (510)232-1271 Fax: (510)232-1272

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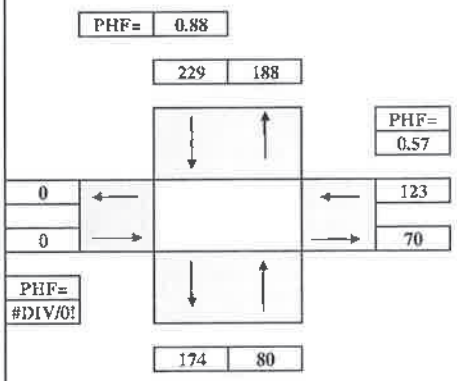
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	H STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	INYO STREET	CITY:	FRESNO	FILE:	2911072-75PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	16	1	18	41	0	0	0	0	3	0	24	*103*
4:15 PM	---	4:30 PM	0	38	3	37	73	0	0	0	0	4	0	40	*195*
4:30 PM	---	4:45 PM	0	58	4	51	124	0	0	0	0	8	0	67	*312*
4:45 PM	---	5:00 PM	0	77	5	71	153	0	0	0	0	8	0	88	*402*
5:00 PM	---	5:15 PM	0	91	6	83	205	0	0	0	0	13	0	137	*535*
5:15 PM	---	5:30 PM	0	115	7	90	233	0	0	0	0	16	0	150	*611*
5:30 PM	---	5:45 PM	0	123	7	96	254	0	0	0	0	18	0	170	*668*
5:45 PM	---	6:00 PM	0	132	7	103	276	0	0	0	0	19	0	182	*719*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	16	1	18	41	0	0	0	0	3	0	24	*103*
4:15 PM	---	4:30 PM	0	22	2	19	32	0	0	0	0	1	0	16	*92*
4:30 PM	---	4:45 PM	0	20	1	14	51	0	0	0	0	4	0	27	*117*
4:45 PM	---	5:00 PM	0	19	1	20	29	0	0	0	0	0	0	21	*90*
5:00 PM	---	5:15 PM	0	14	1	12	52	0	0	0	0	5	0	49	*133*
5:15 PM	---	5:30 PM	0	24	1	7	28	0	0	0	0	3	0	13	*76*
5:30 PM	---	5:45 PM	0	8	0	6	21	0	0	0	0	2	0	20	*57*
5:45 PM	---	6:00 PM	0	9	0	7	22	0	0	0	0	1	0	12	*51*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	77	5	71	153	0	0	0	0	8	0	88	*402*
4:15 PM	---	5:15 PM	0	75	5	65	164	0	0	0	0	10	0	113	*432*
4:30 PM	---	5:30 PM	0	77	4	53	160	0	0	0	0	12	0	110	*416*
4:45 PM	---	5:45 PM	0	65	3	45	130	0	0	0	0	10	0	103	*356*
5:00 PM	---	6:00 PM	0	55	2	32	123	0	0	0	0	11	0	94	*317*

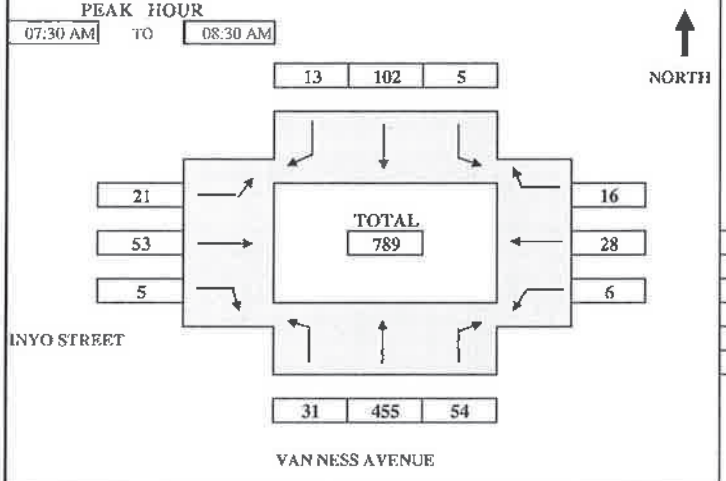
Telephone: (510)232-1271 Fax: (510)232-1272

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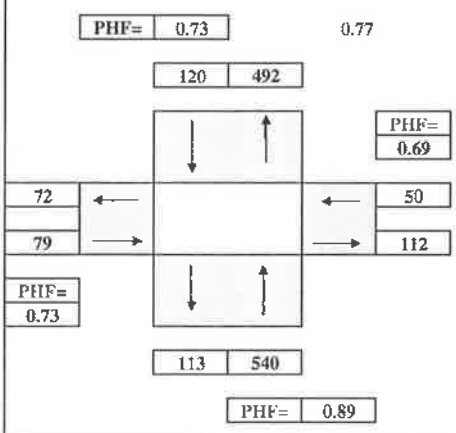
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	INYO STREET	CITY:	FRESNO	FILE:	2911072-74AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	1	55	8	0	9	3	2	8	2	1	7	2	*98*
7:15 AM	---	7:30 AM	9	141	21	3	20	5	6	14	2	3	10	4	*238*
7:30 AM	---	7:45 AM	13	244	34	3	36	8	9	25	3	4	17	8	*404*
7:45 AM	---	8:00 AM	21	370	50	3	58	11	15	45	4	6	27	14	*624*
8:00 AM	---	8:15 AM	31	492	69	6	88	15	21	53	6	8	33	17	*839*
8:15 AM	---	8:30 AM	40	596	75	8	122	18	27	67	7	9	38	20	*1,027*
8:30 AM	---	8:45 AM	44	678	80	10	144	21	32	80	10	10	44	29	*1,182*
8:45 AM	---	9:00 AM	50	759	84	18	174	24	39	86	10	10	50	31	*1,335*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	1	55	8	0	9	3	2	8	2	1	7	2	*98*
7:15 AM	---	7:30 AM	8	86	13	3	11	2	4	6	0	2	3	2	*140*
7:30 AM	---	7:45 AM	4	103	13	0	16	3	3	11	1	1	7	4	*166*
7:45 AM	---	8:00 AM	8	126	16	0	22	3	6	20	1	2	10	6	*220*
8:00 AM	---	8:15 AM	10	122	19	3	30	4	6	8	2	2	6	3	*215*
8:15 AM	---	8:30 AM	9	104	6	2	34	3	6	14	1	1	5	3	*188*
8:30 AM	---	8:45 AM	4	82	5	2	22	3	5	13	3	1	6	9	*155*
8:45 AM	---	9:00 AM	6	81	4	8	30	3	7	6	0	0	6	2	*153*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	21	370	50	3	58	11	15	45	4	6	27	14	*624*
7:15 AM	---	8:15 AM	30	437	61	6	79	12	19	45	4	7	26	15	*741*
7:30 AM	---	8:30 AM	31	455	54	5	102	13	21	53	5	6	28	16	*789*
7:45 AM	---	8:45 AM	31	434	46	7	108	13	23	55	7	6	27	21	*778*
8:00 AM	---	9:00 AM	29	389	34	15	116	13	24	41	6	4	23	17	*711*

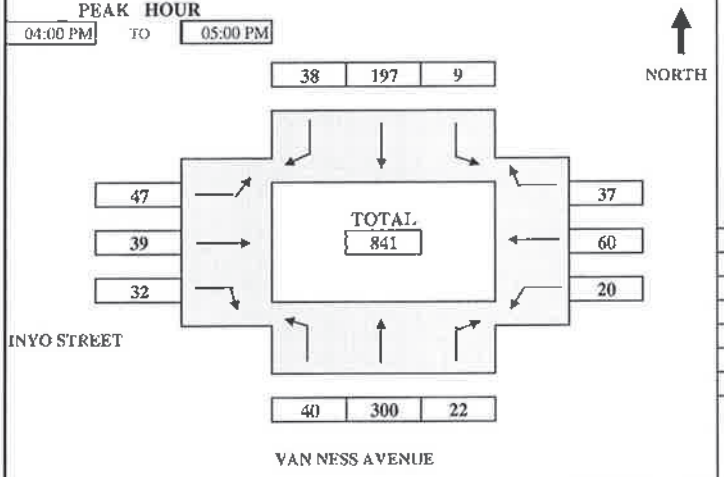
Telephone: (510)232-1271 Fax: (510)232-1272

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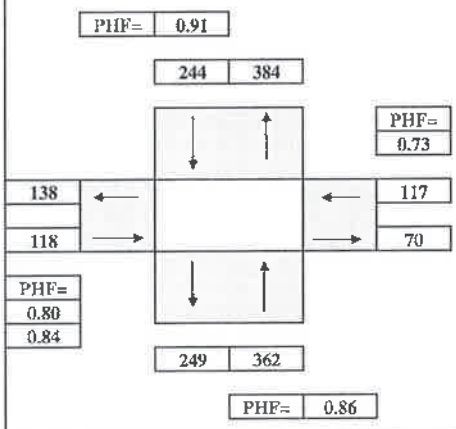
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	INYO STREET	CITY:	FRESNO	FILE:	2911072-74PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	9	59	4	1	46	15	12	12	11	5	24	11	*209*
4:15 PM	---	4:30 PM	18	146	10	4	96	26	19	17	20	8	38	17	*419*
4:30 PM	---	4:45 PM	32	210	15	5	154	34	35	27	25	18	52	25	*632*
4:45 PM	---	5:00 PM	40	300	22	9	197	38	47	39	32	20	60	37	*841*
5:00 PM	---	5:15 PM	53	383	22	12	243	47	61	48	37	22	74	45	*1,047*
5:15 PM	---	5:30 PM	67	456	22	13	290	53	67	56	54	25	91	53	*1,247*
5:30 PM	---	5:45 PM	84	511	24	17	335	64	77	68	54	26	98	65	*1,423*
5:45 PM	---	6:00 PM	97	569	26	20	359	77	92	79	65	29	102	67	*1,582*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	9	59	4	1	46	15	12	12	11	5	24	11	*209*
4:15 PM	---	4:30 PM	9	87	6	3	50	11	7	5	9	3	14	6	*210*
4:30 PM	---	4:45 PM	14	64	5	1	58	8	16	10	5	10	14	8	*213*
4:45 PM	---	5:00 PM	8	90	7	4	43	4	12	12	7	2	8	12	*209*
5:00 PM	---	5:15 PM	13	83	0	3	46	9	14	9	5	2	14	8	*206*
5:15 PM	---	5:30 PM	14	73	0	1	47	6	6	8	17	3	17	8	*200*
5:30 PM	---	5:45 PM	17	55	2	4	45	11	10	12	0	1	7	12	*176*
5:45 PM	---	6:00 PM	13	58	2	3	24	13	15	11	11	3	4	2	*159*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	40	300	22	9	197	38	47	39	32	20	60	37	*841*
4:15 PM	---	5:15 PM	44	324	18	11	197	32	49	36	26	17	50	34	*838*
4:30 PM	---	5:30 PM	49	310	12	9	194	27	48	39	34	17	53	36	*828*
4:45 PM	---	5:45 PM	52	301	9	12	181	30	42	41	29	8	46	40	*791*
5:00 PM	---	6:00 PM	57	269	4	11	162	39	45	40	33	9	42	30	*741*

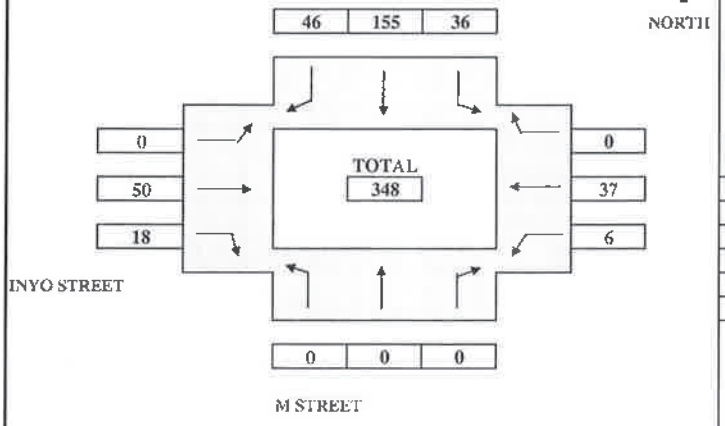
Telephone: (510)232-1271 Fax: (510)232-1272

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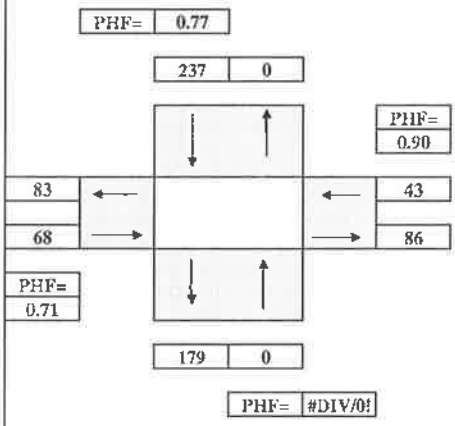
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	M STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	INYO STREET	CITY:	FRESNO	FILE:	2911072-73AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	2	17	6	0	8	3	0	6	0	*42*
7:15 AM	---	7:30 AM	0	0	0	2	45	15	0	17	5	3	14	0	*101*
7:30 AM	---	7:45 AM	0	0	0	10	88	22	0	32	6	8	17	0	*183*
7:45 AM	---	8:00 AM	0	0	0	26	135	36	0	52	10	10	27	0	*296*
8:00 AM	---	8:15 AM	0	0	0	31	168	47	0	62	15	11	35	0	*369*
8:15 AM	---	8:30 AM	0	0	0	38	205	56	0	70	18	12	45	0	*444*
8:30 AM	---	8:45 AM	0	0	0	46	243	68	0	82	24	14	54	0	*531*
8:45 AM	---	9:00 AM	0	0	0	53	275	72	0	96	30	19	57	0	*602*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	2	17	6	0	8	3	0	6	0	*42*
7:15 AM	---	7:30 AM	0	0	0	0	28	9	0	9	2	3	8	0	*59*
7:30 AM	---	7:45 AM	0	0	0	8	43	7	0	15	1	5	3	0	*82*
7:45 AM	---	8:00 AM	0	0	0	16	47	14	0	20	4	2	10	0	*113*
8:00 AM	---	8:15 AM	0	0	0	5	33	11	0	10	5	1	8	0	*73*
8:15 AM	---	8:30 AM	0	0	0	7	37	9	0	8	3	1	10	0	*75*
8:30 AM	---	8:45 AM	0	0	0	8	38	12	0	12	6	2	9	0	*87*
8:45 AM	---	9:00 AM	0	0	0	7	32	4	0	14	6	5	3	0	*71*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	26	135	36	0	52	10	10	27	0	*296*
7:15 AM	---	8:15 AM	0	0	0	29	151	41	0	54	12	11	29	0	*327*
7:30 AM	---	8:30 AM	0	0	0	36	160	41	0	53	13	9	31	0	*343*
7:45 AM	---	8:45 AM	0	0	0	36	155	46	0	50	18	6	37	0	*348*
8:00 AM	---	9:00 AM	0	0	0	27	140	36	0	44	20	9	30	0	*306*

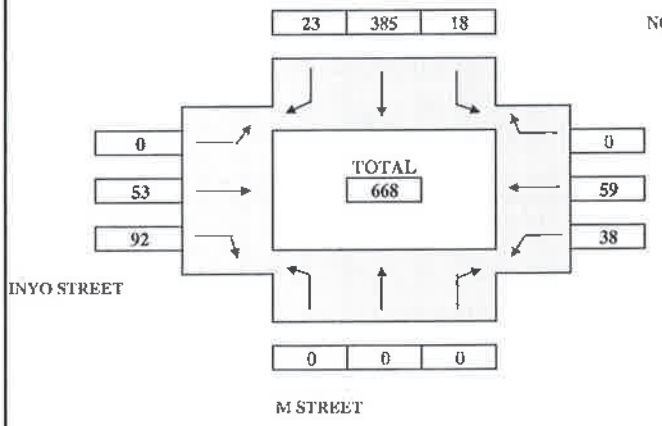
Telephone: (510)232-1271 Fax: (510)232-1272

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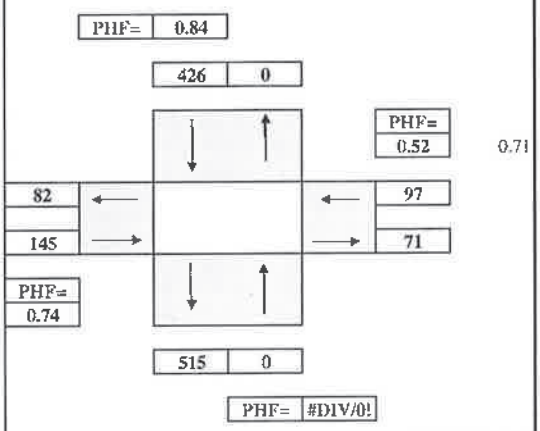
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	M STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	INYO STREET	CITY:	FRESNO	FILE:	2911072-73PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	7	86	7	0	14	34	17	30	0	*195*
4:15 PM	---	4:30 PM	0	0	0	13	126	15	0	21	47	22	37	0	*281*
4:30 PM	---	4:45 PM	0	0	0	19	228	18	0	31	75	37	47	0	*455*
4:45 PM	---	5:00 PM	0	0	0	24	320	24	0	50	96	50	68	0	*632*
5:00 PM	---	5:15 PM	0	0	0	27	439	29	0	67	128	55	83	0	*828*
5:15 PM	---	5:30 PM	0	0	0	31	511	38	0	74	139	60	96	0	*949*
5:30 PM	---	5:45 PM	0	0	0	33	552	44	0	81	158	76	105	0	*1,049*
5:45 PM	---	6:00 PM	0	0	0	35	585	48	0	87	170	79	110	0	*1,114*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	7	86	7	0	14	34	17	30	0	*195*
4:15 PM	---	4:30 PM	0	0	0	6	40	8	0	7	13	5	7	0	*86*
4:30 PM	---	4:45 PM	0	0	0	6	102	3	0	10	28	15	10	0	*174*
4:45 PM	---	5:00 PM	0	0	0	5	92	6	0	19	21	13	21	0	*177*
5:00 PM	---	5:15 PM	0	0	0	3	119	5	0	17	32	5	15	0	*196*
5:15 PM	---	5:30 PM	0	0	0	4	72	9	0	7	11	5	13	0	*121*
5:30 PM	---	5:45 PM	0	0	0	2	41	6	0	7	19	16	9	0	*100*
5:45 PM	---	6:00 PM	0	0	0	2	33	4	0	6	12	3	5	0	*65*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	24	320	24	0	50	96	50	68	0	*632*
4:15 PM	---	5:15 PM	0	0	0	20	353	22	0	53	94	38	53	0	*633*
4:30 PM	---	5:30 PM	0	0	0	18	385	23	0	53	92	38	59	0	*668*
4:45 PM	---	5:45 PM	0	0	0	14	324	26	0	50	83	39	58	0	*594*
5:00 PM	---	6:00 PM	0	0	0	11	265	24	0	37	74	29	42	0	*482*

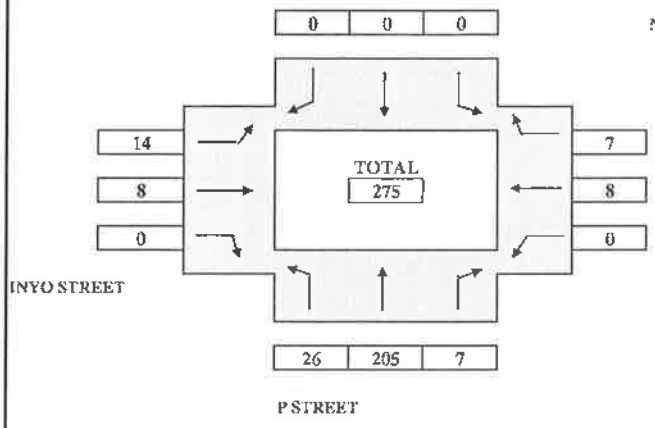
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

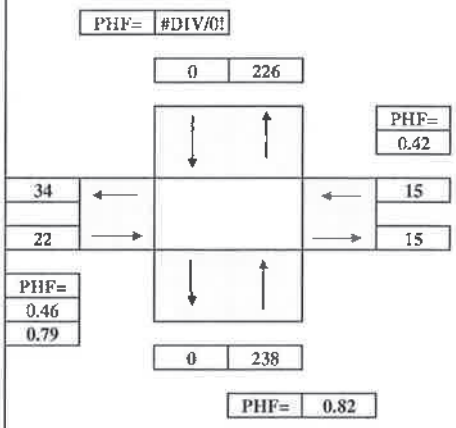
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	P STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	INYO STREET	CITY:	FRESNO	FILE:	2911072-72AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	2	26	0	0	0	0	2	0	0	0	1	0	*31*
7:15 AM	---	7:30 AM	8	64	0	0	0	0	3	2	0	0	2	1	*80*
7:30 AM	---	7:45 AM	12	115	2	0	0	0	5	4	0	0	4	1	*143*
7:45 AM	---	8:00 AM	22	177	3	0	0	0	10	6	0	0	8	6	*232*
8:00 AM	---	8:15 AM	24	235	5	0	0	0	14	9	0	0	8	8	*303*
8:15 AM	---	8:30 AM	34	269	7	0	0	0	17	10	0	0	10	8	*355*
8:30 AM	---	8:45 AM	38	290	11	0	0	0	22	13	0	0	12	9	*395*
8:45 AM	---	9:00 AM	45	327	15	0	0	0	30	17	0	0	14	9	*457*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	2	26	0	0	0	0	2	0	0	0	1	0	*31*
7:15 AM	---	7:30 AM	6	38	0	0	0	0	1	2	0	0	1	1	*49*
7:30 AM	---	7:45 AM	4	51	2	0	0	0	2	2	0	0	2	0	*63*
7:45 AM	---	8:00 AM	10	62	1	0	0	0	5	2	0	0	4	5	*89*
8:00 AM	---	8:15 AM	2	58	2	0	0	0	4	3	0	0	0	2	*71*
8:15 AM	---	8:30 AM	10	34	2	0	0	0	3	1	0	0	2	0	*52*
8:30 AM	---	8:45 AM	4	21	4	0	0	0	5	3	0	0	2	1	*40*
8:45 AM	---	9:00 AM	7	37	4	0	0	0	8	4	0	0	2	0	*62*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	22	177	3	0	0	0	10	6	0	0	8	6	*232*
7:15 AM	---	8:15 AM	22	209	5	0	0	0	12	9	0	0	7	8	*272*
7:30 AM	---	8:30 AM	26	205	7	0	0	0	14	8	0	0	8	7	*275*
7:45 AM	---	8:45 AM	26	175	9	0	0	0	17	9	0	0	8	8	*252*
8:00 AM	---	9:00 AM	23	150	12	0	0	0	20	11	0	0	6	3	*225*

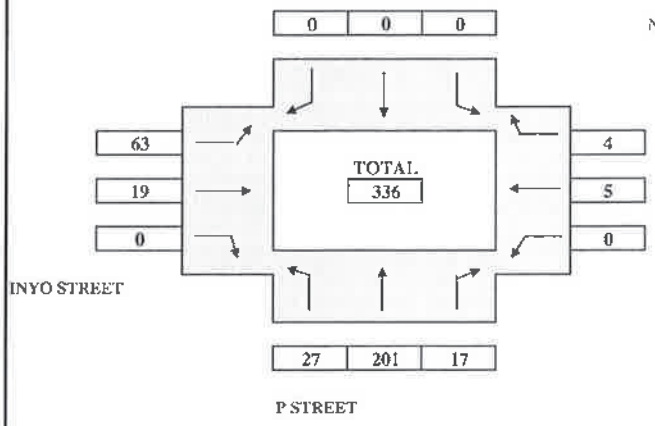
Telephone: (510)232-1271 Fax: (510)232-1272

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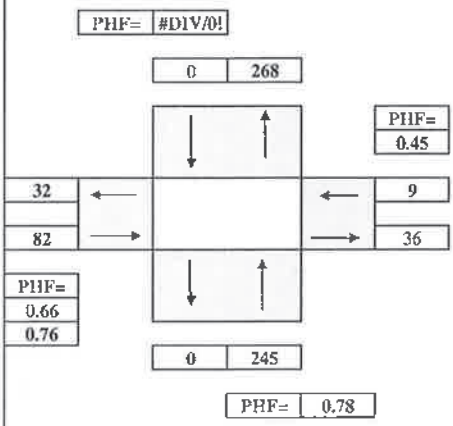
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	P STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	INYO STREET	CITY:	FRESNO	FILE:	2911072-72PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	8	50	1	0	0	0	21	6	0	0	2	1	*89*
4:15 PM	---	4:30 PM	17	87	9	0	0	0	35	11	0	0	5	3	*167*
4:30 PM	---	4:45 PM	22	157	13	0	0	0	48	16	0	0	5	4	*265*
4:45 PM	---	5:00 PM	27	201	17	0	0	0	63	19	0	0	5	4	*336*
5:00 PM	---	5:15 PM	31	237	20	0	0	0	88	25	0	0	8	5	*414*
5:15 PM	---	5:30 PM	33	270	25	0	0	0	103	27	0	0	8	6	*472*
5:30 PM	---	5:45 PM	37	296	26	0	0	0	114	29	0	0	9	6	*517*
5:45 PM	---	6:00 PM	37	307	26	0	0	0	124	29	0	0	10	8	*541*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	8	50	1	0	0	0	21	6	0	0	2	1	*89*
4:15 PM	---	4:30 PM	9	37	8	0	0	0	14	5	0	0	3	2	*78*
4:30 PM	---	4:45 PM	5	70	4	0	0	0	13	5	0	0	0	1	*98*
4:45 PM	---	5:00 PM	5	44	4	0	0	0	15	3	0	0	0	0	*71*
5:00 PM	---	5:15 PM	4	36	3	0	0	0	25	6	0	0	3	1	*78*
5:15 PM	---	5:30 PM	2	33	5	0	0	0	15	2	0	0	0	1	*58*
5:30 PM	---	5:45 PM	4	26	1	0	0	0	11	2	0	0	1	0	*45*
5:45 PM	---	6:00 PM	0	11	0	0	0	0	10	0	0	0	1	2	*24*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	27	201	17	0	0	0	63	19	0	0	5	4	*336*
4:15 PM	---	5:15 PM	23	187	19	0	0	0	67	19	0	0	6	4	*325*
4:30 PM	---	5:30 PM	16	183	16	0	0	0	68	16	0	0	3	3	*305*
4:45 PM	---	5:45 PM	15	139	13	0	0	0	66	13	0	0	4	2	*252*
5:00 PM	---	6:00 PM	10	106	9	0	0	0	61	10	0	0	5	4	*205*

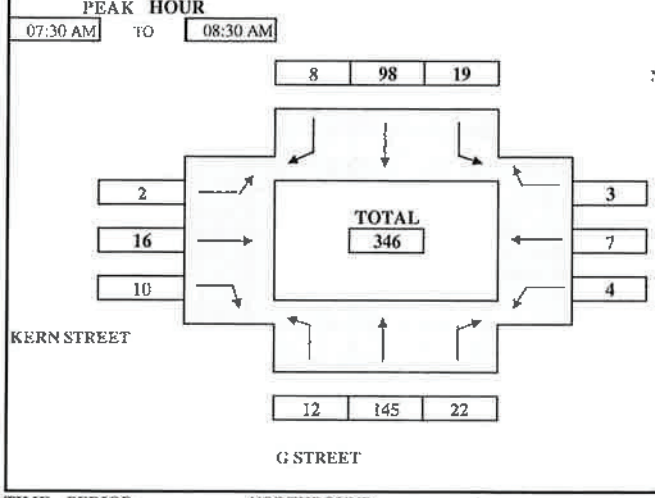
Telephone: (510)232-1271 Fax: (510)232-1272

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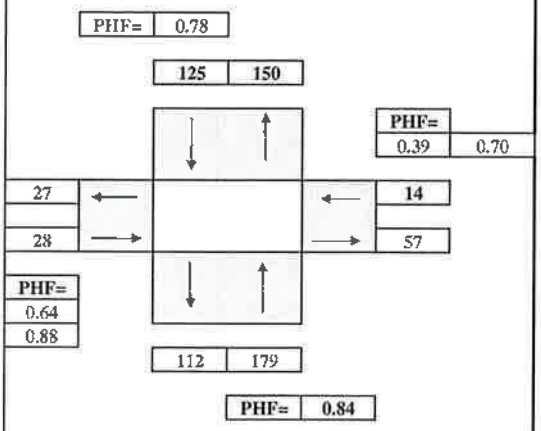
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	G STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	KERN STREET	CITY:	FRESNO	FILE:	2911072-77AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	21	2	1	8	2	1	3	4	0	1	0	*43*
7:15 AM	---	7:30 AM	2	46	3	2	26	3	1	4	4	1	3	0	*95*
7:30 AM	---	7:45 AM	4	94	6	6	53	5	2	8	7	2	4	1	*192*
7:45 AM	---	8:00 AM	8	135	9	11	83	10	2	12	7	3	7	2	*289*
8:00 AM	---	8:15 AM	10	162	18	14	106	10	2	17	10	3	9	3	*364*
8:15 AM	---	8:30 AM	14	191	25	21	124	11	3	20	14	5	10	3	*441*
8:30 AM	---	8:45 AM	16	218	26	21	140	12	3	23	18	5	11	4	*497*
8:45 AM	---	9:00 AM	22	250	29	23	159	16	7	27	21	6	16	7	*583*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	21	2	1	8	2	1	3	4	0	1	0	*43*
7:15 AM	---	7:30 AM	2	25	1	1	18	1	0	1	0	1	2	0	*52*
7:30 AM	---	7:45 AM	2	48	3	4	27	2	1	4	3	1	1	1	*97*
7:45 AM	---	8:00 AM	4	41	3	5	30	5	0	4	0	1	3	1	*97*
8:00 AM	---	8:15 AM	2	27	9	3	23	0	0	5	3	0	2	1	*75*
8:15 AM	---	8:30 AM	4	29	7	7	18	1	1	3	4	2	1	0	*77*
8:30 AM	---	8:45 AM	2	27	1	0	16	1	0	3	4	0	1	1	*56*
8:45 AM	---	9:00 AM	6	32	3	2	19	4	4	4	3	1	5	3	*86*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	8	135	9	11	83	10	2	12	7	3	7	2	*289*
7:15 AM	---	8:15 AM	10	141	16	13	98	8	1	14	6	3	8	3	*321*
7:30 AM	---	8:30 AM	12	145	22	19	98	8	2	16	10	4	7	3	*346*
7:45 AM	---	8:45 AM	12	124	20	15	87	7	1	15	11	3	7	3	*305*
8:00 AM	---	9:00 AM	14	115	20	12	76	6	5	15	14	3	9	5	*294*

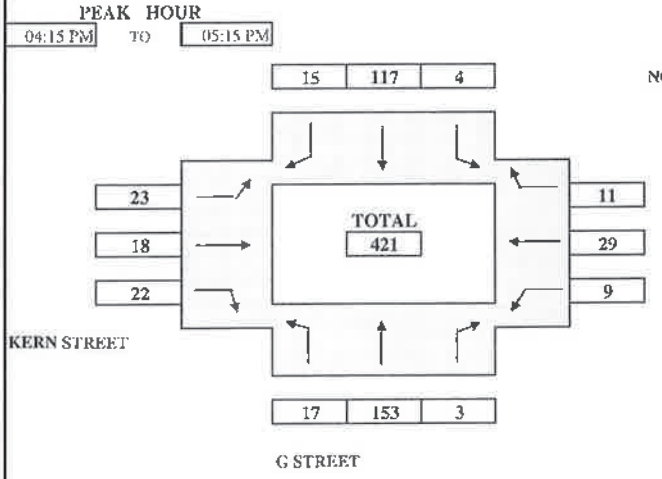
Telephone: (510)232-1271 Fax: (510)232-1272

P

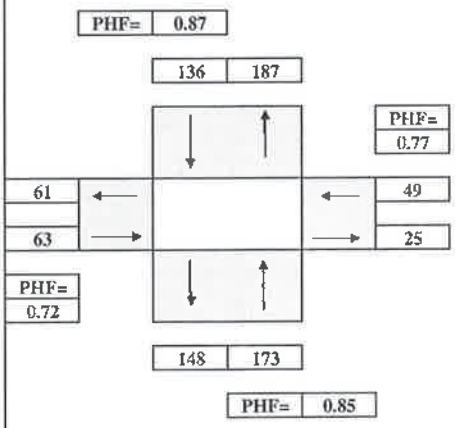
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	G STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	KERN STREET	CITY:	FRESNO	FILE:	2911072-77PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	8	35	1	5	32	1	2	4	5	2	14	0	*109*
4:15 PM	---	4:30 PM	9	66	1	5	65	7	5	8	12	3	19	4	*204*
4:30 PM	---	4:45 PM	16	104	2	6	96	11	15	13	19	6	26	7	*321*
4:45 PM	---	5:00 PM	20	143	3	8	117	13	21	17	20	9	36	10	*417*
5:00 PM	---	5:15 PM	25	188	4	9	149	16	25	22	27	11	43	11	*530*
5:15 PM	---	5:30 PM	28	231	6	9	158	18	29	26	36	13	47	11	*612*
5:30 PM	---	5:45 PM	28	254	6	9	174	20	30	29	39	15	54	12	*670*
5:45 PM	---	6:00 PM	29	278	7	11	186	22	31	29	42	15	59	13	*722*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	8	35	1	5	32	1	2	4	5	2	14	0	*109*
4:15 PM	---	4:30 PM	1	31	0	0	33	6	3	4	7	1	5	4	*95*
4:30 PM	---	4:45 PM	7	38	1	1	31	4	10	5	7	3	7	3	*117*
4:45 PM	---	5:00 PM	4	39	1	2	21	2	6	4	1	3	10	3	*96*
5:00 PM	---	5:15 PM	5	45	1	1	32	3	4	5	7	2	7	1	*113*
5:15 PM	---	5:30 PM	3	43	2	0	9	2	4	4	9	2	4	0	*82*
5:30 PM	---	5:45 PM	0	23	0	0	16	2	1	3	3	2	7	1	*58*
5:45 PM	---	6:00 PM	1	24	1	2	12	2	1	0	3	0	5	1	*52*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	20	143	3	8	117	13	21	17	20	9	36	10	*417*
4:15 PM	---	5:15 PM	17	153	3	4	117	15	23	18	22	9	29	11	*421*
4:30 PM	---	5:30 PM	19	165	5	4	93	11	24	18	24	10	28	7	*408*
4:45 PM	---	5:45 PM	12	150	4	3	78	9	15	16	20	9	28	5	*349*
5:00 PM	---	6:00 PM	9	135	4	3	69	9	10	12	22	6	23	3	*305*

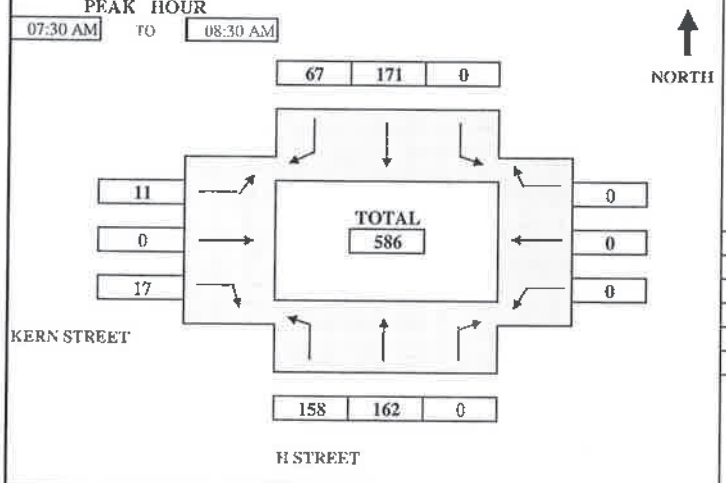
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B.A.Y.M.E.T.R.I.C.S.

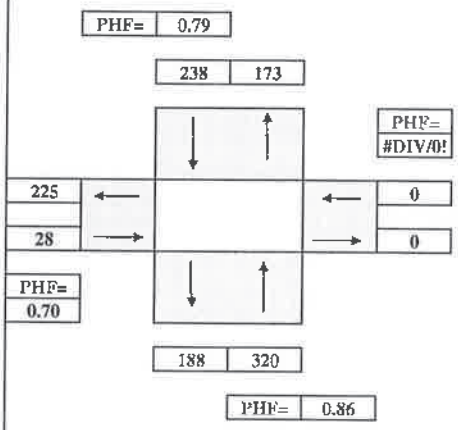
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	H STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	KERN STREET	CITY:	FRESNO	FILE:	2911072-62AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA														
7:00 AM ---	7:15 AM	4	17	0	0	26	2	5	0	1	0	0	0	*55*
7:15 AM ---	7:30 AM	9	55	0	0	56	7	5	0	3	0	0	0	*135*
7:30 AM ---	7:45 AM	36	91	0	0	96	13	8	0	7	0	0	0	*251*
7:45 AM ---	8:00 AM	64	136	0	0	152	26	11	0	11	0	0	0	*400*
8:00 AM ---	8:15 AM	125	168	0	0	192	61	15	0	17	0	0	0	*578*
8:15 AM ---	8:30 AM	167	217	0	0	227	74	16	0	20	0	0	0	*721*
8:30 AM ---	8:45 AM	182	244	0	0	263	83	19	0	24	0	0	0	*815*
8:45 AM ---	9:00 AM	188	272	0	0	298	88	25	0	27	0	0	0	*898*
TOTAL BY PERIOD														
7:00 AM ---	7:15 AM	4	17	0	0	26	2	5	0	1	0	0	0	*55*
7:15 AM ---	7:30 AM	5	38	0	0	30	5	0	0	2	0	0	0	*80*
7:30 AM ---	7:45 AM	27	36	0	0	40	6	3	0	4	0	0	0	*116*
7:45 AM ---	8:00 AM	28	45	0	0	56	13	3	0	4	0	0	0	*149*
8:00 AM ---	8:15 AM	61	32	0	0	40	35	4	0	6	0	0	0	*178*
8:15 AM ---	8:30 AM	42	49	0	0	35	13	1	0	3	0	0	0	*143*
8:30 AM ---	8:45 AM	15	27	0	0	36	9	3	0	4	0	0	0	*94*
8:45 AM ---	9:00 AM	6	28	0	0	35	5	6	0	3	0	0	0	*83*
HOURLY TOTALS														
7:00 AM ---	8:00 AM	64	136	0	0	152	26	11	0	11	0	0	0	*400*
7:15 AM ---	8:15 AM	121	151	0	0	166	59	10	0	16	0	0	0	*523*
7:30 AM ---	8:30 AM	158	162	0	0	171	67	11	0	17	0	0	0	*586*
7:45 AM ---	8:45 AM	146	153	0	0	167	70	11	0	17	0	0	0	*564*
8:00 AM ---	9:00 AM	124	136	0	0	146	62	14	0	16	0	0	0	*498*

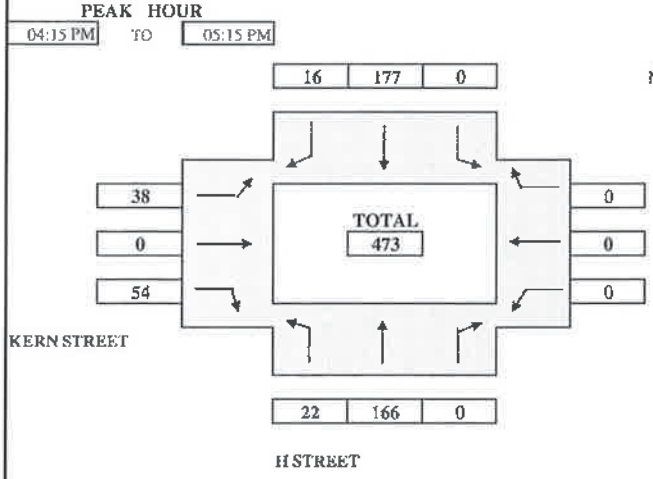
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B.A.Y.M.E.T.R.I.C.S.

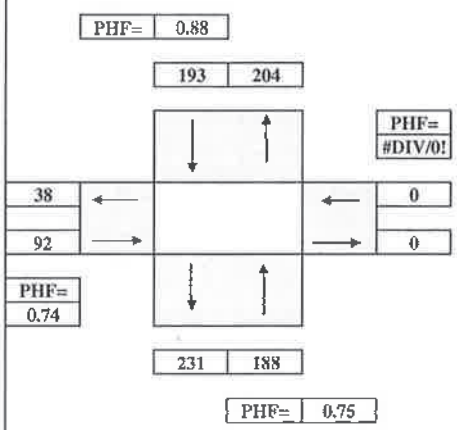
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	H STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	KERN STREET	CITY:	FRESNO	FILE:	2911072-62PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	9	31	0	0	43	7	8	0	17	0	0	0	*115*
4:15 PM	---	4:30 PM	14	64	0	0	85	9	15	0	26	0	0	0	*213*
4:30 PM	---	4:45 PM	19	106	0	0	130	13	25	0	47	0	0	0	*340*
4:45 PM	---	5:00 PM	25	140	0	0	171	17	38	0	55	0	0	0	*446*
5:00 PM	---	5:15 PM	31	197	0	0	220	23	46	0	71	0	0	0	*588*
5:15 PM	---	5:30 PM	36	229	0	0	250	24	53	0	76	0	0	0	*668*
5:30 PM	---	5:45 PM	44	248	0	0	271	25	60	0	82	0	0	0	*730*
5:45 PM	---	6:00 PM	47	264	0	0	299	26	64	0	83	0	0	0	*783*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	9	31	0	0	43	7	8	0	17	0	0	0	*115*
4:15 PM	---	4:30 PM	5	33	0	0	42	2	7	0	9	0	0	0	*98*
4:30 PM	---	4:45 PM	5	42	0	0	45	4	10	0	21	0	0	0	*127*
4:45 PM	---	5:00 PM	6	34	0	0	41	4	13	0	8	0	0	0	*106*
5:00 PM	---	5:15 PM	6	57	0	0	49	6	8	0	16	0	0	0	*142*
5:15 PM	---	5:30 PM	5	32	0	0	30	1	7	0	5	0	0	0	*80*
5:30 PM	---	5:45 PM	8	19	0	0	21	1	7	0	6	0	0	0	*62*
5:45 PM	---	6:00 PM	3	16	0	0	28	1	4	0	1	0	0	0	*53*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	25	140	0	0	171	17	38	0	55	0	0	0	*446*
4:15 PM	---	5:15 PM	22	166	0	0	177	16	38	0	54	0	0	0	*473*
4:30 PM	---	5:30 PM	22	165	0	0	165	15	38	0	50	0	0	0	*455*
4:45 PM	---	5:45 PM	25	142	0	0	141	12	35	0	35	0	0	0	*390*
5:00 PM	---	6:00 PM	22	124	0	0	128	9	26	0	28	0	0	0	*337*

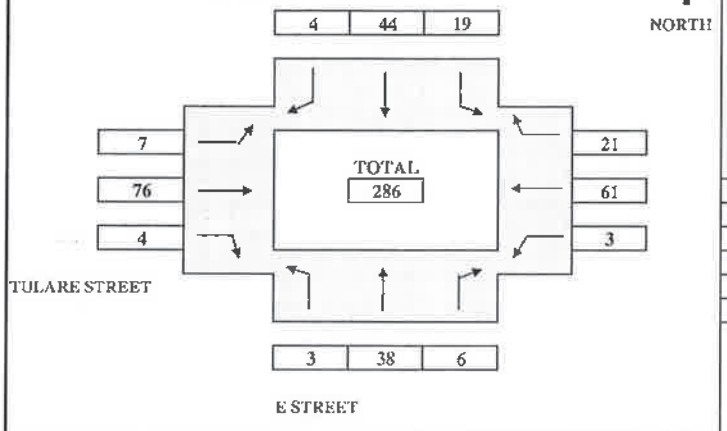
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

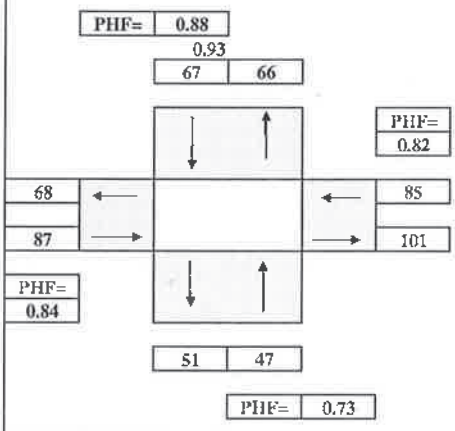
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	E STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-47AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA														
7:00 AM ---	7:15 AM	1	5	0	3	8	1	1	4	1	4	4	1	*33*
7:15 AM ---	7:30 AM	2	9	0	5	14	4	2	14	3	4	15	2	*74*
7:30 AM ---	7:45 AM	3	15	2	8	24	5	5	32	6	4	35	5	*144*
7:45 AM ---	8:00 AM	4	26	6	10	38	6	8	55	6	5	51	14	*229*
8:00 AM ---	8:15 AM	4	41	6	17	49	6	9	74	7	5	60	18	*296*
8:15 AM ---	8:30 AM	5	47	6	24	58	8	9	90	7	7	76	23	*360*
8:30 AM ---	8:45 AM	5	56	6	27	67	10	12	104	8	10	90	27	*422*
8:45 AM ---	9:00 AM	7	66	7	33	79	11	17	117	11	10	106	30	*494*
TOTAL BY PERIOD														
7:00 AM ---	7:15 AM	1	5	0	3	8	1	1	4	1	4	4	1	*33*
7:15 AM ---	7:30 AM	1	4	0	2	6	3	1	10	2	0	11	1	*41*
7:30 AM ---	7:45 AM	1	6	2	3	10	1	3	18	3	0	20	3	*70*
7:45 AM ---	8:00 AM	1	11	4	2	14	1	3	23	0	1	16	9	*85*
8:00 AM ---	8:15 AM	0	15	0	7	11	0	1	19	1	0	9	4	*67*
8:15 AM ---	8:30 AM	1	6	0	7	9	2	0	16	0	2	16	5	*64*
8:30 AM ---	8:45 AM	0	9	0	3	9	2	3	14	1	3	14	4	*62*
8:45 AM ---	9:00 AM	2	10	1	6	12	1	5	13	3	0	16	3	*72*
HOURLY TOTALS														
7:00 AM ---	8:00 AM	4	26	6	10	38	6	8	55	6	5	51	14	*229*
7:15 AM ---	8:15 AM	3	36	6	14	41	5	8	70	6	1	56	17	*263*
7:30 AM ---	8:30 AM	3	38	6	19	44	4	7	76	4	3	61	21	*286*
7:45 AM ---	8:45 AM	2	41	4	19	43	5	7	72	2	6	55	22	*278*
8:00 AM ---	9:00 AM	3	40	1	23	41	5	9	62	5	5	55	16	*265*

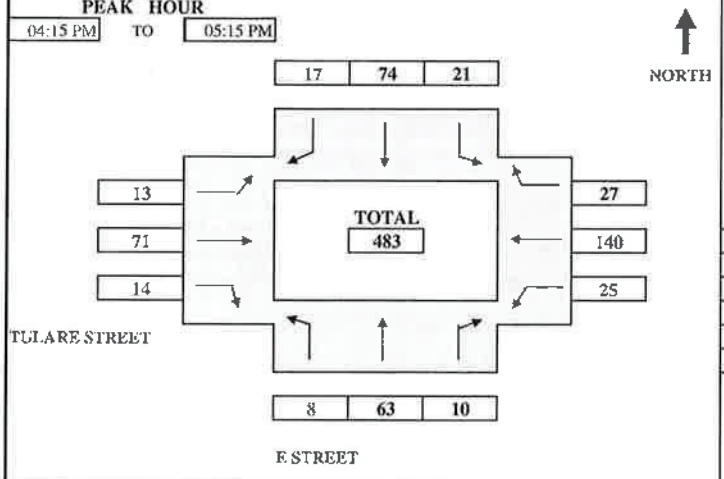
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

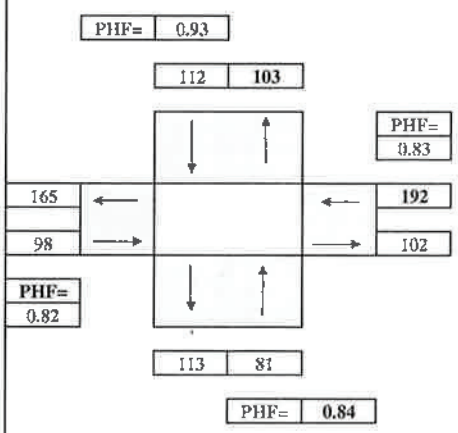
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	E STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-47PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	4	15	3	1	11	0	4	14	1	4	20	9	*86*
4:15 PM	---	4:30 PM	5	34	7	5	32	5	9	31	1	10	58	15	*212*
4:30 PM	---	4:45 PM	6	50	10	10	50	10	12	55	3	17	92	17	*332*
4:45 PM	---	5:00 PM	9	63	12	18	68	13	15	74	11	23	121	23	*450*
5:00 PM	---	5:15 PM	12	78	13	22	85	17	17	85	15	29	160	36	*569*
5:15 PM	---	5:30 PM	13	91	18	23	97	20	19	100	16	30	183	42	*652*
5:30 PM	---	5:45 PM	14	109	21	26	107	23	21	116	18	35	193	50	*733*
5:45 PM	---	6:00 PM	16	119	22	29	115	25	24	122	19	39	209	52	*791*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	4	15	3	1	11	0	4	14	1	4	20	9	*86*
4:15 PM	---	4:30 PM	1	19	4	4	21	5	5	17	0	6	38	6	*126*
4:30 PM	---	4:45 PM	1	16	3	5	18	5	3	24	2	7	34	2	*120*
4:45 PM	---	5:00 PM	3	13	2	8	18	3	3	19	8	6	29	6	*118*
5:00 PM	---	5:15 PM	3	15	1	4	17	4	2	11	4	6	39	13	*119*
5:15 PM	---	5:30 PM	1	13	5	1	12	3	2	15	1	1	23	6	*83*
5:30 PM	---	5:45 PM	1	18	3	3	10	3	2	16	2	5	10	8	*81*
5:45 PM	---	6:00 PM	2	10	1	3	8	2	3	6	1	4	16	2	*58*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	9	63	12	18	68	13	15	74	11	23	121	23	*450*
4:15 PM	---	5:15 PM	8	63	10	21	74	17	13	71	14	25	140	27	*483*
4:30 PM	---	5:30 PM	8	57	11	18	65	15	10	69	15	20	125	27	*440*
4:45 PM	---	5:45 PM	8	59	11	16	57	13	9	61	15	18	101	33	*401*
5:00 PM	---	6:00 PM	7	56	10	11	47	12	9	48	8	16	88	29	*341*

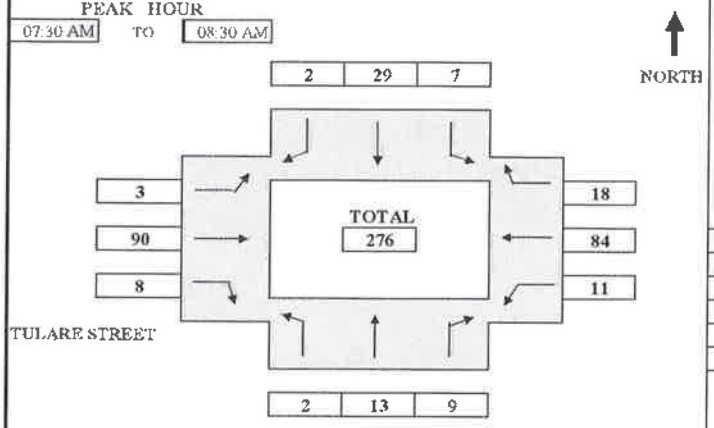
Telephone: (510)232-1271 Fax: (510)232-1272

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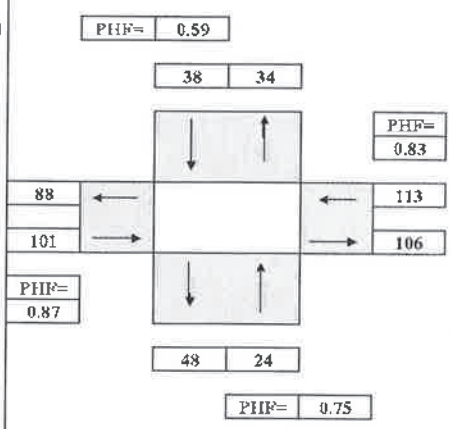
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	F STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-46AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	1	3	1	0	2	0	1	5	2	1	8	1	*25*
7:15 AM	---	7:30 AM	1	6	2	0	4	0	1	16	3	2	20	3	*58*
7:30 AM	---	7:45 AM	2	10	4	0	9	0	2	37	4	4	43	10	*125*
7:45 AM	---	8:00 AM	2	12	7	1	16	1	4	63	5	10	69	12	*202*
8:00 AM	---	8:15 AM	2	14	9	4	21	1	4	87	7	10	82	19	*260*
8:15 AM	---	8:30 AM	3	19	11	7	33	2	4	106	11	13	104	21	*334*
8:30 AM	---	8:45 AM	3	24	12	8	39	3	4	122	12	13	124	23	*387*
8:45 AM	---	9:00 AM	4	31	13	9	48	3	4	141	14	13	143	25	*448*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	1	3	1	0	2	0	1	5	2	1	8	1	*25*
7:15 AM	---	7:30 AM	0	3	1	0	2	0	0	11	1	1	12	2	*33*
7:30 AM	---	7:45 AM	1	4	2	0	5	0	1	21	1	2	23	7	*67*
7:45 AM	---	8:00 AM	0	2	3	1	7	1	2	26	1	6	26	2	*77*
8:00 AM	---	8:15 AM	0	2	2	3	5	0	0	24	2	0	13	7	*58*
8:15 AM	---	8:30 AM	1	5	2	3	12	1	0	19	4	3	22	2	*74*
8:30 AM	---	8:45 AM	0	5	1	1	6	1	0	16	1	0	20	2	*53*
8:45 AM	---	9:00 AM	1	7	1	1	9	0	0	19	2	0	19	2	*61*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	2	12	7	1	16	1	4	63	5	10	69	12	*202*
7:15 AM	---	8:15 AM	1	11	8	4	19	1	3	82	5	9	74	18	*235*
7:30 AM	---	8:30 AM	2	13	9	7	29	2	3	90	8	11	84	18	*276*
7:45 AM	---	8:45 AM	1	14	8	8	30	3	2	85	8	9	81	13	*262*
8:00 AM	---	9:00 AM	2	19	6	8	32	2	0	78	9	3	74	13	*246*

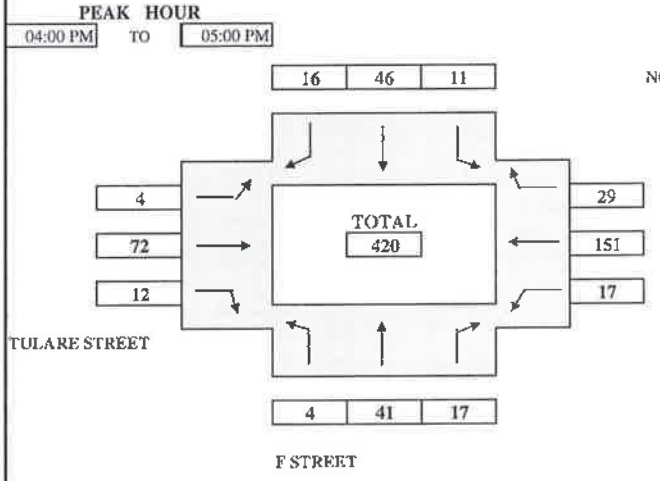
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

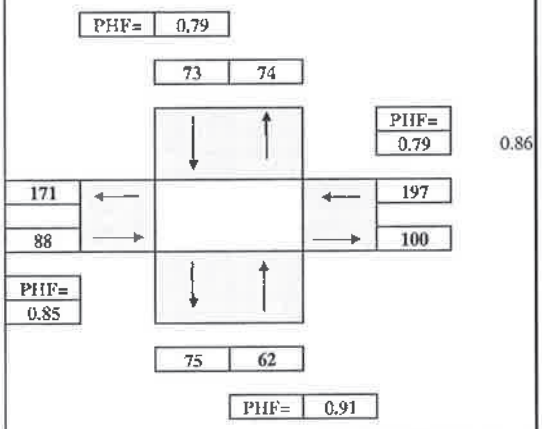
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	F STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-46PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	2	11	4	6	14	3	1	17	3	9	32	3	*105*
4:15 PM	---	4:30 PM	4	20	9	7	25	7	2	36	4	13	76	12	*215*
4:30 PM	---	4:45 PM	4	32	11	10	37	13	3	55	10	13	115	21	*324*
4:45 PM	---	5:00 PM	4	41	17	11	46	16	4	72	12	17	151	29	*420*
5:00 PM	---	5:15 PM	5	46	20	14	55	18	4	88	15	21	205	33	*524*
5:15 PM	---	5:30 PM	7	52	22	14	61	19	6	101	15	26	231	40	*594*
5:30 PM	---	5:45 PM	7	61	24	16	69	21	7	118	17	29	253	40	*662*
5:45 PM	---	6:00 PM	7	71	24	18	78	23	7	125	18	30	273	45	*719*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	2	11	4	6	14	3	1	17	3	9	32	3	*105*
4:15 PM	---	4:30 PM	2	9	5	1	11	4	1	19	1	4	44	9	*110*
4:30 PM	---	4:45 PM	0	12	2	3	12	6	1	19	6	0	39	9	*109*
4:45 PM	---	5:00 PM	0	9	6	1	9	3	1	17	2	4	36	8	*96*
5:00 PM	---	5:15 PM	1	5	3	3	9	2	0	16	3	4	54	4	*104*
5:15 PM	---	5:30 PM	2	6	2	0	6	1	2	13	0	5	26	7	*70*
5:30 PM	---	5:45 PM	0	9	2	2	8	2	1	17	2	3	22	0	*68*
5:45 PM	---	6:00 PM	0	10	0	2	9	2	0	7	1	1	20	5	*57*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	4	41	17	11	46	16	4	72	12	17	151	29	*420*
4:15 PM	---	5:15 PM	3	35	16	8	41	15	3	71	12	12	173	30	*419*
4:30 PM	---	5:30 PM	3	32	13	7	36	12	4	65	11	13	155	28	*379*
4:45 PM	---	5:45 PM	3	29	13	6	32	8	4	63	7	16	138	19	*338*
5:00 PM	---	6:00 PM	3	30	7	7	32	7	3	53	6	13	122	16	*299*

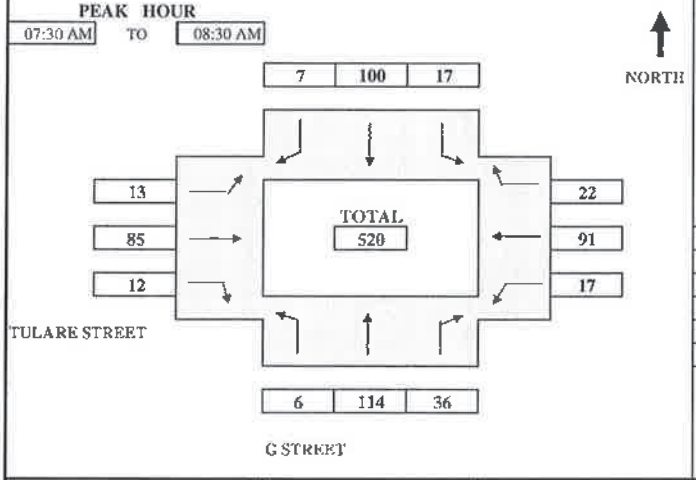
Telephone: (510)232-1271 Fax: (510)232-1272

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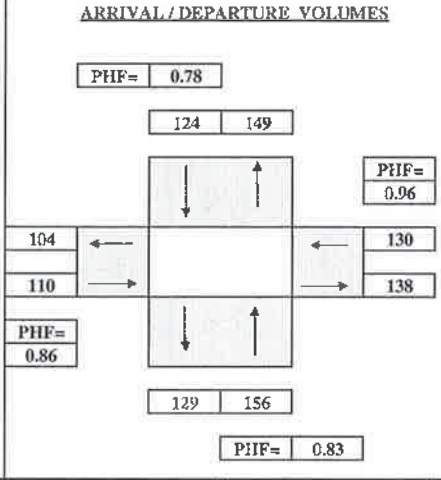
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	G STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-45AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	13	9	0	11	2	0	7	1	1	7	2	*53*
7:15 AM	---	7:30 AM	2	29	14	1	31	8	1	16	1	1	18	6	*128*
7:30 AM	---	7:45 AM	2	67	23	5	64	9	5	34	1	3	44	10	*267*
7:45 AM	---	8:00 AM	3	99	35	11	94	13	8	56	5	9	67	15	*415*
8:00 AM	---	8:15 AM	5	124	40	17	114	14	10	77	9	13	87	23	*533*
8:15 AM	---	8:30 AM	8	143	50	18	131	15	14	101	13	18	109	28	*648*
8:30 AM	---	8:45 AM	8	166	54	27	142	15	14	110	17	20	129	34	*736*
8:45 AM	---	9:00 AM	8	201	57	30	157	15	15	126	22	27	147	41	*846*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	13	9	0	11	2	0	7	1	1	7	2	*53*
7:15 AM	---	7:30 AM	2	16	5	1	20	6	1	9	0	0	11	4	*75*
7:30 AM	---	7:45 AM	0	38	9	4	33	1	4	18	0	2	26	4	*139*
7:45 AM	---	8:00 AM	1	32	12	6	30	4	3	22	4	6	23	5	*148*
8:00 AM	---	8:15 AM	2	25	5	6	20	1	2	21	4	4	20	8	*118*
8:15 AM	---	8:30 AM	3	19	10	1	17	1	4	24	4	5	22	5	*115*
8:30 AM	---	8:45 AM	0	23	4	9	11	0	0	9	4	2	20	6	*88*
8:45 AM	---	9:00 AM	0	35	3	3	15	0	1	16	5	7	18	7	*110*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	3	99	35	11	94	13	8	56	5	9	67	15	*415*
7:15 AM	---	8:15 AM	5	111	31	17	103	12	10	70	8	12	80	21	*480*
7:30 AM	---	8:30 AM	6	114	36	17	100	7	13	85	12	17	91	22	*520*
7:45 AM	---	8:45 AM	6	99	31	22	78	6	9	76	16	17	85	24	*469*
8:00 AM	---	9:00 AM	5	102	22	19	63	2	7	70	17	18	80	26	*431*

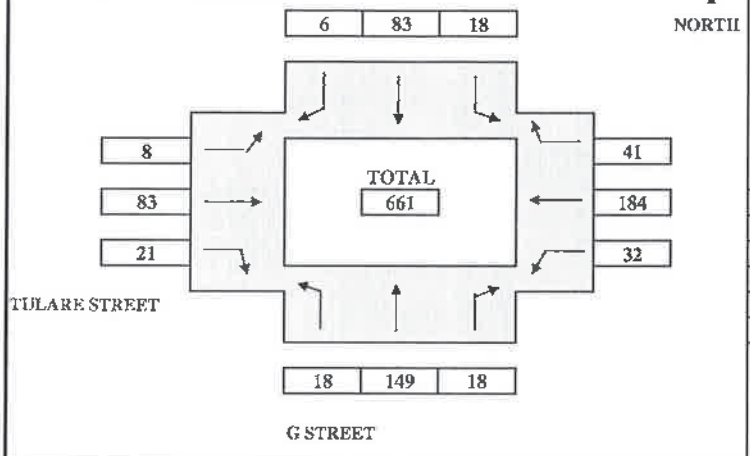
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

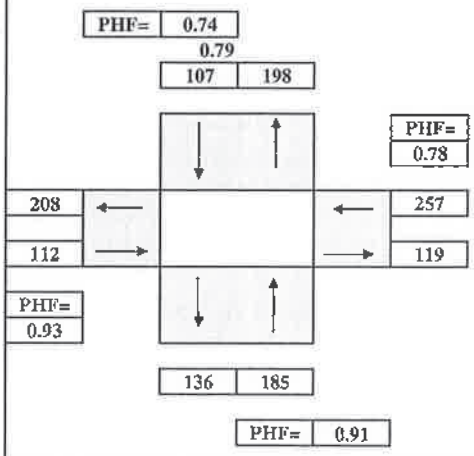
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	G STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-45PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	6	28	3	6	30	0	1	19	1	7	39	11	*151*
4:15 PM	---	4:30 PM	7	60	6	11	51	1	2	39	9	17	83	19	*305*
4:30 PM	---	4:45 PM	15	99	10	18	76	3	5	62	13	24	125	30	*480*
4:45 PM	---	5:00 PM	18	139	15	20	91	5	6	85	18	29	166	37	*629*
5:00 PM	---	5:15 PM	24	177	21	24	113	6	9	102	22	39	223	52	*812*
5:15 PM	---	5:30 PM	27	219	23	24	116	7	9	116	23	43	248	65	*920*
5:30 PM	---	5:45 PM	28	237	27	28	126	7	9	133	28	46	270	75	*1,014*
5:45 PM	---	6:00 PM	30	260	28	29	140	7	9	143	28	48	291	84	*1,097*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	6	28	3	6	30	0	1	19	1	7	39	11	*151*
4:15 PM	---	4:30 PM	1	32	3	5	21	1	1	20	8	10	44	8	*154*
4:30 PM	---	4:45 PM	8	39	4	7	25	2	3	23	4	7	42	11	*175*
4:45 PM	---	5:00 PM	3	40	5	2	15	2	1	23	5	5	41	7	*149*
5:00 PM	---	5:15 PM	6	38	6	4	22	1	3	17	4	10	57	15	*183*
5:15 PM	---	5:30 PM	3	42	2	0	3	1	0	14	1	4	25	13	*108*
5:30 PM	---	5:45 PM	1	18	4	4	10	0	0	17	5	3	22	10	*94*
5:45 PM	---	6:00 PM	2	23	1	1	14	0	0	10	0	2	21	9	*83*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	18	139	15	20	91	5	6	85	18	29	166	37	*629*
4:15 PM	---	5:15 PM	18	149	18	18	83	6	8	83	21	32	184	41	*661*
4:30 PM	---	5:30 PM	20	159	17	13	65	6	7	77	14	26	165	46	*615*
4:45 PM	---	5:45 PM	13	138	17	10	50	4	4	71	15	22	145	45	*534*
5:00 PM	---	6:00 PM	12	121	13	9	49	2	3	58	10	19	125	47	*468*

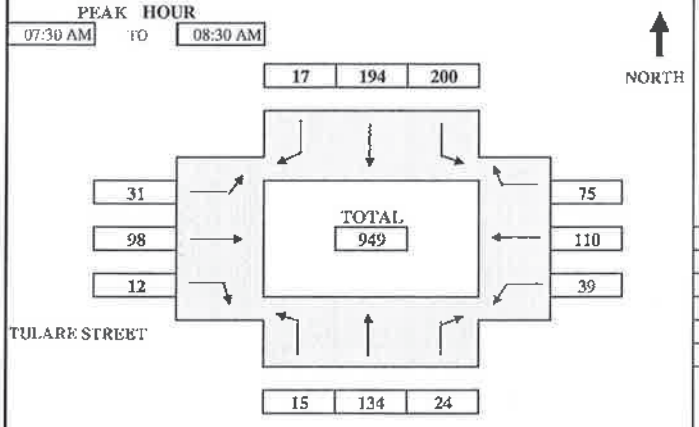
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

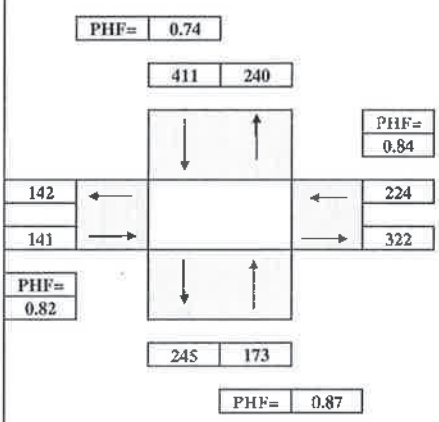
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	H STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-44AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA														
7:00 AM ---	7:15 AM	0	14	4	18	24	2	1	12	1	3	8	4	*91*
7:15 AM ---	7:30 AM	1	48	7	70	56	6	6	21	2	5	23	19	*264*
7:30 AM ---	7:45 AM	3	82	10	111	97	8	13	44	4	8	53	31	*464*
7:45 AM ---	8:00 AM	8	117	18	178	161	16	21	76	7	14	79	47	*742*
8:00 AM ---	8:15 AM	12	147	20	226	214	21	30	97	13	30	107	70	*987*
8:15 AM ---	8:30 AM	16	182	31	270	250	23	37	119	14	44	133	94	*1,213*
8:30 AM ---	8:45 AM	20	200	38	309	283	29	41	137	17	53	155	115	*1,397*
8:45 AM ---	9:00 AM	22	224	46	346	316	37	44	163	18	59	185	143	*1,603*
TOTAL BY PERIOD														
7:00 AM ---	7:15 AM	0	14	4	18	24	2	1	12	1	3	8	4	*91*
7:15 AM ---	7:30 AM	1	34	3	52	32	4	5	9	1	2	15	15	*173*
7:30 AM ---	7:45 AM	2	34	3	41	41	2	7	23	2	3	30	12	*200*
7:45 AM ---	8:00 AM	5	35	8	67	64	8	8	32	3	6	26	16	*278*
8:00 AM ---	8:15 AM	4	30	2	48	53	5	9	21	6	16	28	23	*245*
8:15 AM ---	8:30 AM	4	35	11	44	36	2	7	22	1	14	26	24	*226*
8:30 AM ---	8:45 AM	4	18	7	39	33	6	4	18	3	9	22	21	*184*
8:45 AM ---	9:00 AM	2	24	8	37	33	8	3	26	1	6	30	28	*206*
HOURLY TOTALS														
7:00 AM ---	8:00 AM	8	117	18	178	161	16	21	76	7	14	79	47	*742*
7:15 AM ---	8:15 AM	12	133	16	208	190	19	29	85	12	27	99	66	*896*
7:30 AM ---	8:30 AM	15	134	24	200	194	17	31	98	12	39	110	75	*949*
7:45 AM ---	8:45 AM	17	118	28	198	186	21	28	93	13	45	102	84	*933*
8:00 AM ---	9:00 AM	14	107	28	168	155	21	23	87	11	45	106	96	*861*

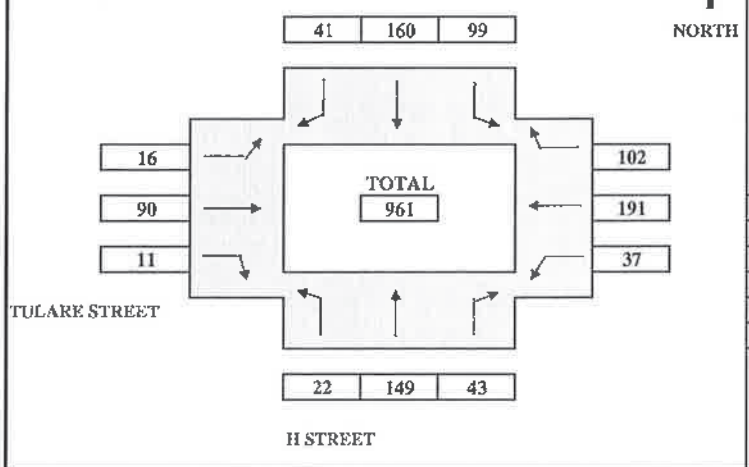
Telephone: (510)232-1271 Fax: (510)232-1272

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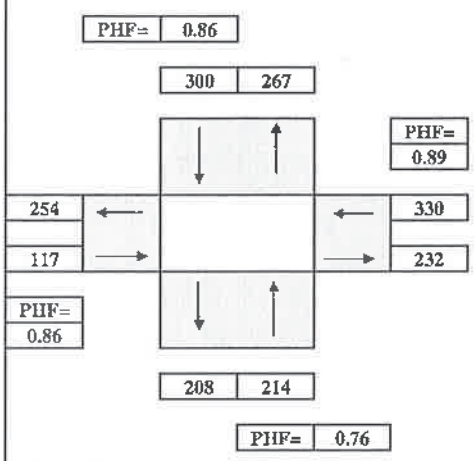
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	H STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-4PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	2	27	13	27	39	9	5	23	5	6	55	28	*239*
4:15 PM	---	4:30 PM	5	57	22	55	75	21	6	48	5	18	102	51	*465*
4:30 PM	---	4:45 PM	14	96	29	81	117	29	10	70	10	24	146	73	*699*
4:45 PM	---	5:00 PM	17	124	45	104	148	36	14	96	14	37	190	99	*924*
5:00 PM	---	5:15 PM	24	176	56	126	199	50	21	113	16	43	246	130	*1,200*
5:15 PM	---	5:30 PM	25	207	63	143	221	59	24	136	16	52	288	141	*1,375*
5:30 PM	---	5:45 PM	27	226	68	156	239	63	29	162	16	54	321	151	*1,512*
5:45 PM	---	6:00 PM	29	242	70	171	267	69	31	173	17	54	341	167	*1,631*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	2	27	13	27	39	9	5	23	5	6	55	28	*239*
4:15 PM	---	4:30 PM	3	30	9	28	36	12	1	25	0	12	47	23	*226*
4:30 PM	---	4:45 PM	9	39	7	26	42	8	4	22	5	6	44	22	*234*
4:45 PM	---	5:00 PM	3	28	16	23	31	7	4	26	4	13	44	26	*225*
5:00 PM	---	5:15 PM	7	52	11	22	51	14	7	17	2	6	56	31	*276*
5:15 PM	---	5:30 PM	1	31	7	17	22	9	3	23	0	9	42	11	*175*
5:30 PM	---	5:45 PM	2	19	5	13	18	4	5	26	0	2	33	10	*137*
5:45 PM	---	6:00 PM	2	16	2	15	28	6	2	11	1	0	20	16	*119*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	17	124	45	104	148	36	14	96	14	37	190	99	*924*
4:15 PM	---	5:15 PM	22	149	43	99	160	41	16	90	11	37	191	102	*961*
4:30 PM	---	5:30 PM	20	150	41	88	146	38	18	88	11	34	186	90	*910*
4:45 PM	---	5:45 PM	13	130	39	75	122	34	19	92	6	30	175	78	*813*
5:00 PM	---	6:00 PM	12	118	25	67	119	33	17	77	3	17	151	68	*707*

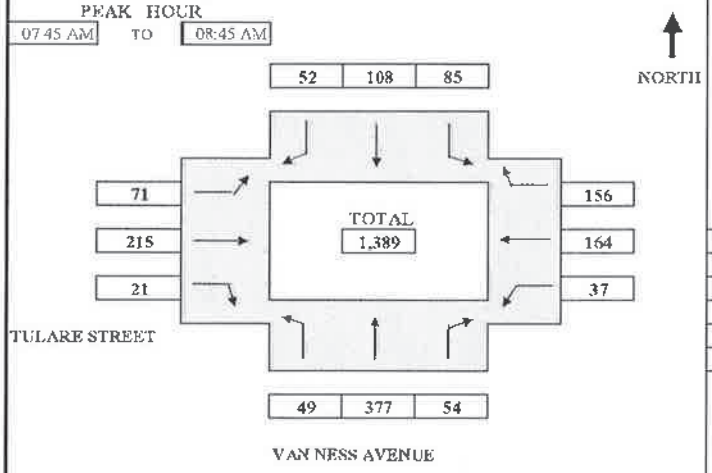
Telephone: (510)232-1271 Fax: (510)232-1272

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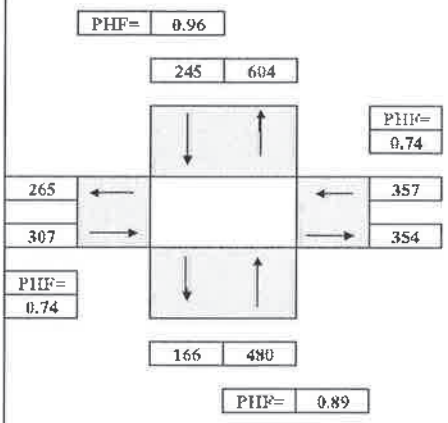
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TULARE STREET	CITY: FRESNO		FILE:	2911072-16AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA														
7:00 AM	7:15 AM	3	47	10	12	15	6	6	25	2	3	15	13	*157*
7:15 AM	7:30 AM	11	131	18	22	38	12	19	75	6	9	39	35	*415*
7:30 AM	7:45 AM	20	207	31	37	60	15	22	119	7	12	80	67	*677*
7:45 AM	8:00 AM	35	311	47	57	90	28	38	202	12	21	125	97	*1,063*
8:00 AM	8:15 AM	49	395	58	79	109	47	52	247	15	27	162	133	*1,373*
8:15 AM	8:30 AM	63	493	70	107	139	53	77	299	20	40	212	190	*1,763*
8:30 AM	8:45 AM	69	584	85	122	168	67	93	334	28	49	244	223	*2,066*
8:45 AM	9:00 AM	85	657	103	141	193	78	102	383	31	62	286	285	*2,406*
TOTAL BY PERIOD														
7:00 AM	7:15 AM	3	47	10	12	15	6	6	25	2	3	15	13	*157*
7:15 AM	7:30 AM	8	84	8	10	23	6	13	50	4	6	24	22	*258*
7:30 AM	7:45 AM	9	76	13	15	22	3	3	44	1	3	41	32	*262*
7:45 AM	8:00 AM	15	104	16	20	30	13	16	83	5	9	45	30	*386*
8:00 AM	8:15 AM	14	84	11	22	19	19	14	45	3	6	37	36	*310*
8:15 AM	8:30 AM	14	98	12	28	30	6	25	52	5	13	50	57	*390*
8:30 AM	8:45 AM	6	91	15	15	29	14	16	35	8	9	32	33	*303*
8:45 AM	9:00 AM	16	73	18	19	25	11	9	49	3	13	42	62	*340*
HOURLY TOTALS														
7:00 AM	8:00 AM	35	311	47	57	90	28	38	202	12	21	125	97	*1,063*
7:15 AM	8:15 AM	46	348	48	67	94	41	46	222	13	24	147	120	*1,216*
7:30 AM	8:30 AM	52	362	52	85	101	41	58	224	14	31	173	155	*1,348*
7:45 AM	8:45 AM	49	377	54	85	108	52	71	215	21	37	164	156	*1,389*
8:00 AM	9:00 AM	50	346	56	84	103	50	64	181	19	41	161	188	*1,343*

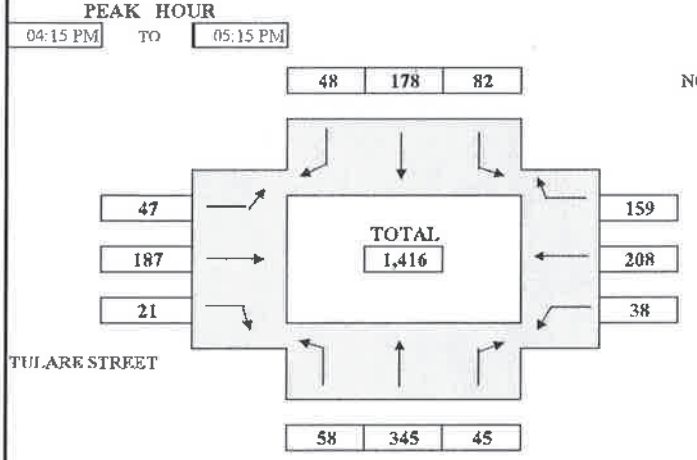
Telephone: (510)232-1271 Fax: (510)232-1272

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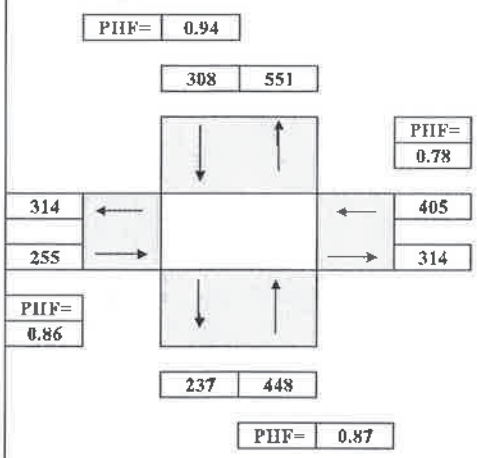
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-16PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	12	104	10	18	46	11	7	48	7	10	44	44	*361*
4:15 PM	---	4:30 PM	20	165	17	36	87	24	19	80	11	21	85	83	*648*
4:30 PM	---	4:45 PM	38	257	31	57	133	38	27	127	18	29	128	134	*1,017*
4:45 PM	---	5:00 PM	50	360	45	74	184	52	43	179	21	37	178	159	*1,382*
5:00 PM	---	5:15 PM	70	449	55	100	224	59	54	235	28	48	252	203	*1,777*
5:15 PM	---	5:30 PM	77	516	60	112	252	67	58	273	29	50	283	228	*2,005*
5:30 PM	---	5:45 PM	80	584	72	125	272	73	68	306	33	53	314	255	*2,235*
5:45 PM	---	6:00 PM	85	610	78	138	292	77	71	343	37	61	352	271	*2,415*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	12	104	10	18	46	11	7	48	7	10	44	44	*361*
4:15 PM	---	4:30 PM	8	61	7	18	41	13	12	32	4	11	41	39	*287*
4:30 PM	---	4:45 PM	18	92	14	21	46	14	8	47	7	8	43	51	*369*
4:45 PM	---	5:00 PM	12	103	14	17	51	14	16	52	3	8	50	25	*365*
5:00 PM	---	5:15 PM	20	89	10	26	40	7	11	56	7	11	74	44	*395*
5:15 PM	---	5:30 PM	7	67	5	12	28	8	4	38	1	2	31	25	*228*
5:30 PM	---	5:45 PM	3	68	12	13	20	6	10	33	4	3	31	27	*230*
5:45 PM	---	6:00 PM	5	26	6	13	20	4	3	37	4	8	38	16	*180*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	50	360	45	74	184	52	43	179	21	37	178	159	*1,382*
4:15 PM	---	5:15 PM	58	345	45	82	178	48	47	187	21	38	208	159	*1,416*
4:30 PM	---	5:30 PM	57	351	43	76	165	43	39	193	18	29	198	145	*1,357*
4:45 PM	---	5:45 PM	42	327	41	68	139	35	41	179	15	24	186	121	*1,218*
5:00 PM	---	6:00 PM	35	250	33	64	108	25	28	164	16	24	174	112	*1,033*

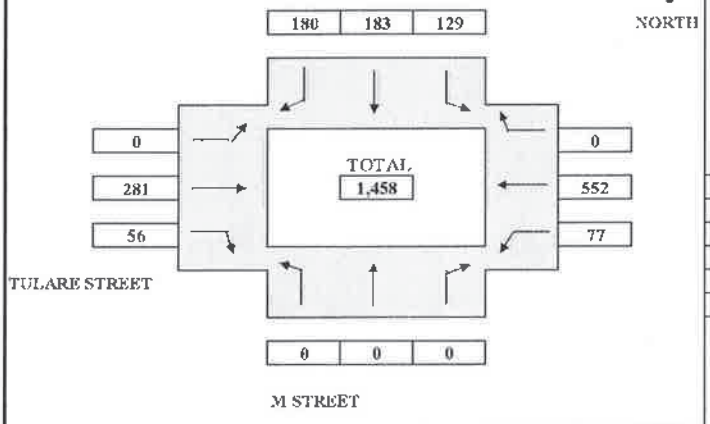
Telephone: (510)232-1271 Fax: (510)232-1272

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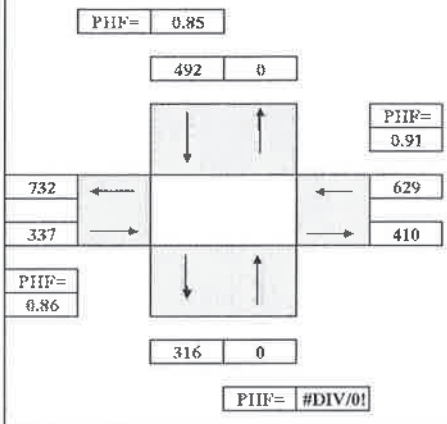
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	IIST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	M STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-65AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	18	31	16	0	19	4	10	59	0	*157*
7:15 AM	---	7:30 AM	0	0	0	34	54	39	0	70	8	21	133	0	*359*
7:30 AM	---	7:45 AM	0	0	0	53	94	70	0	159	14	33	227	0	*650*
7:45 AM	---	8:00 AM	0	0	0	88	148	126	0	240	31	52	349	0	*1,034*
8:00 AM	---	8:15 AM	0	0	0	124	198	173	0	313	44	74	500	0	*1,426*
8:15 AM	---	8:30 AM	0	0	0	148	246	214	0	378	59	90	656	0	*1,791*
8:30 AM	---	8:45 AM	0	0	0	182	277	250	0	440	70	110	779	0	*2,108*
8:45 AM	---	9:00 AM	0	0	0	214	306	283	0	507	78	120	880	0	*2,388*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	18	31	16	0	19	4	10	59	0	*157*
7:15 AM	---	7:30 AM	0	0	0	16	23	23	0	51	4	11	74	0	*202*
7:30 AM	---	7:45 AM	0	0	0	19	40	31	0	89	6	12	94	0	*291*
7:45 AM	---	8:00 AM	0	0	0	35	54	56	0	81	17	19	122	0	*384*
8:00 AM	---	8:15 AM	0	0	0	36	50	47	0	73	13	22	151	0	*392*
8:15 AM	---	8:30 AM	0	0	0	24	48	41	0	65	15	16	156	0	*365*
8:30 AM	---	8:45 AM	0	0	0	34	31	36	0	62	11	20	123	0	*317*
8:45 AM	---	9:00 AM	0	0	0	32	29	33	0	67	8	10	101	0	*280*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	88	148	126	0	240	31	52	349	0	*1,034*
7:15 AM	---	8:15 AM	0	0	0	106	167	157	0	294	40	64	441	0	*1,269*
7:30 AM	---	8:30 AM	0	0	0	114	192	175	0	308	51	69	523	0	*1,432*
7:45 AM	---	8:45 AM	0	0	0	129	183	180	0	281	56	77	552	0	*1,458*
8:00 AM	---	9:00 AM	0	0	0	126	158	157	0	267	47	68	531	0	*1,354*

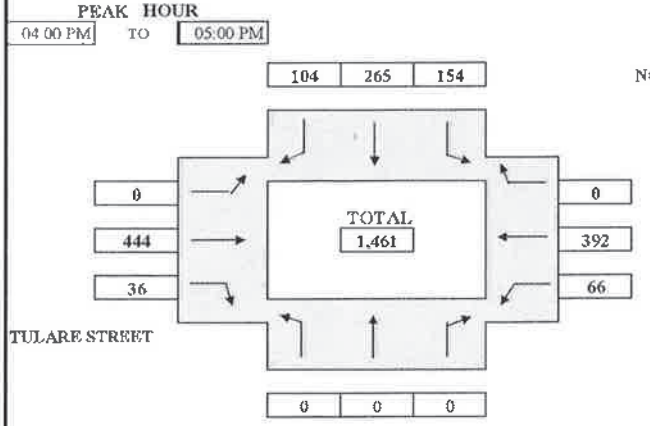
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

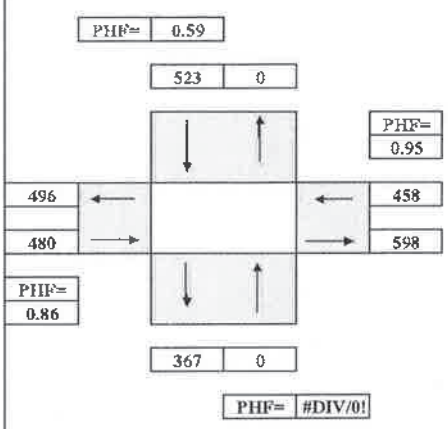
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	M STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-65PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	30	46	13	0	120	6	21	100	0	*336*
4:15 PM	---	4:30 PM	0	0	0	51	92	39	0	205	15	32	187	0	*621*
4:30 PM	---	4:45 PM	0	0	0	80	164	57	0	317	24	49	288	0	*979*
4:45 PM	---	5:00 PM	0	0	0	154	265	104	0	444	36	66	392	0	*1,461*
5:00 PM	---	5:15 PM	0	0	0	183	320	130	0	516	38	79	445	0	*1,711*
5:15 PM	---	5:30 PM	0	0	0	212	371	154	0	596	44	83	508	0	*1,968*
5:30 PM	---	5:45 PM	0	0	0	228	402	170	0	658	48	94	590	0	*2,190*
5:45 PM	---	6:00 PM	0	0	0	245	429	187	0	712	50	100	645	0	*2,368*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	30	46	13	0	120	6	21	100	0	*336*
4:15 PM	---	4:30 PM	0	0	0	21	46	26	0	85	9	11	87	0	*285*
4:30 PM	---	4:45 PM	0	0	0	29	72	18	0	112	9	17	101	0	*358*
4:45 PM	---	5:00 PM	0	0	0	74	101	47	0	127	12	17	104	0	*482*
5:00 PM	---	5:15 PM	0	0	0	29	55	26	0	72	2	13	53	0	*250*
5:15 PM	---	5:30 PM	0	0	0	29	51	24	0	80	6	4	63	0	*257*
5:30 PM	---	5:45 PM	0	0	0	16	31	16	0	62	4	11	82	0	*222*
5:45 PM	---	6:00 PM	0	0	0	17	27	17	0	54	2	6	55	0	*178*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	154	265	104	0	444	36	66	392	0	*1,461*
4:15 PM	---	5:15 PM	0	0	0	153	274	117	0	396	32	58	345	0	*1,375*
4:30 PM	---	5:30 PM	0	0	0	161	279	115	0	391	29	51	321	0	*1,347*
4:45 PM	---	5:45 PM	0	0	0	148	238	113	0	341	24	45	302	0	*1,211*
5:00 PM	---	6:00 PM	0	0	0	91	164	83	0	268	14	34	253	0	*907*

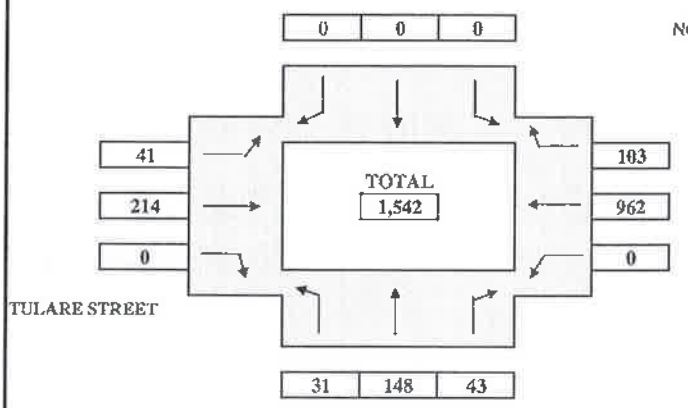
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

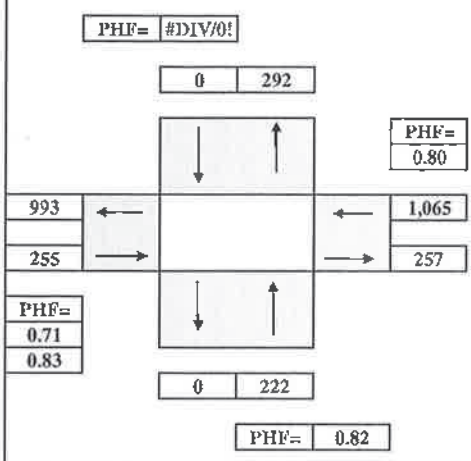
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	P STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-43AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	3	16	4	0	0	0	3	34	0	0	102	20	*182*
7:15 AM	---	7:30 AM	13	47	8	0	0	0	11	74	0	0	259	36	*448*
7:30 AM	---	7:45 AM	16	93	18	0	0	0	22	110	0	0	450	59	*768*
7:45 AM	---	8:00 AM	28	138	29	0	0	0	30	165	0	0	760	80	*1,230*
8:00 AM	---	8:15 AM	38	166	36	0	0	0	41	231	0	0	993	113	*1,618*
8:15 AM	---	8:30 AM	44	195	51	0	0	0	52	288	0	0	1,221	139	*1,990*
8:30 AM	---	8:45 AM	49	212	62	0	0	0	64	362	0	0	1,398	146	*2,293*
8:45 AM	---	9:00 AM	56	228	71	0	0	0	71	445	0	0	1,547	152	*2,570*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	3	16	4	0	0	0	3	34	0	0	102	20	*182*
7:15 AM	---	7:30 AM	10	31	4	0	0	0	8	40	0	0	157	16	*266*
7:30 AM	---	7:45 AM	3	46	10	0	0	0	11	36	0	0	191	23	*320*
7:45 AM	---	8:00 AM	12	45	11	0	0	0	8	55	0	0	310	21	*462*
8:00 AM	---	8:15 AM	10	28	7	0	0	0	11	66	0	0	233	33	*388*
8:15 AM	---	8:30 AM	6	29	15	0	0	0	11	57	0	0	228	26	*372*
8:30 AM	---	8:45 AM	5	17	11	0	0	0	12	74	0	0	177	7	*303*
8:45 AM	---	9:00 AM	7	16	9	0	0	0	7	83	0	0	149	6	*277*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	28	138	29	0	0	0	30	165	0	0	760	80	*1,230*
7:15 AM	---	8:15 AM	35	150	32	0	0	0	38	197	0	0	891	93	*1,436*
7:30 AM	---	8:30 AM	31	148	43	0	0	0	41	214	0	0	962	103	*1,542*
7:45 AM	---	8:45 AM	33	119	44	0	0	0	42	252	0	0	948	87	*1,525*
8:00 AM	---	9:00 AM	28	90	42	0	0	0	41	280	0	0	787	72	*1,340*

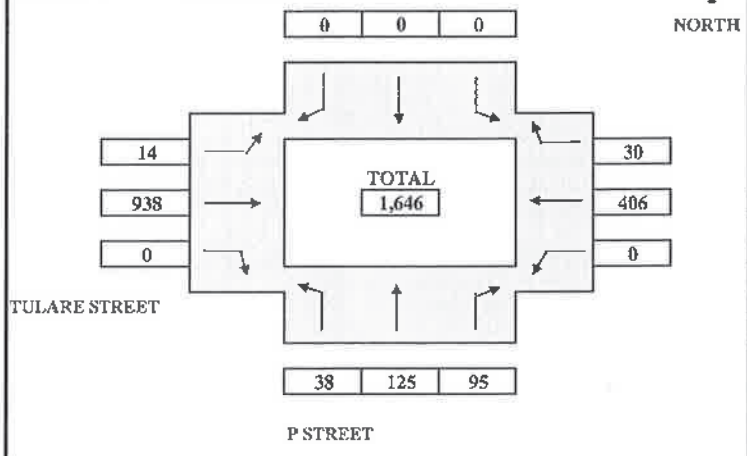
Telephone: (510)232-1271 Fax: (510)232-1272

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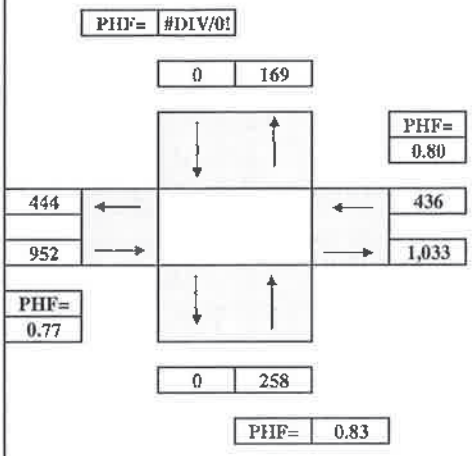
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	P STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-43PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	4	18	11	0	0	0	7	225	0	0	103	6	*374*
4:15 PM	---	4:30 PM	7	36	34	0	0	0	11	382	0	0	202	13	*685*
4:30 PM	---	4:45 PM	18	69	53	0	0	0	11	653	0	0	313	17	*1,134*
4:45 PM	---	5:00 PM	31	110	77	0	0	0	15	858	0	0	382	26	*1,499*
5:00 PM	---	5:15 PM	42	143	106	0	0	0	21	1,163	0	0	509	36	*2,020*
5:15 PM	---	5:30 PM	53	189	123	0	0	0	37	1,296	0	0	575	44	*2,317*
5:30 PM	---	5:45 PM	61	217	154	0	0	0	41	1,425	0	0	647	54	*2,599*
5:45 PM	---	6:00 PM	64	235	175	0	0	0	47	1,526	0	0	719	65	*2,831*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	4	18	11	0	0	0	7	225	0	0	103	6	*374*
4:15 PM	---	4:30 PM	3	18	23	0	0	0	4	157	0	0	99	7	*311*
4:30 PM	---	4:45 PM	11	33	19	0	0	0	0	271	0	0	111	4	*449*
4:45 PM	---	5:00 PM	13	41	24	0	0	0	4	205	0	0	69	9	*365*
5:00 PM	---	5:15 PM	11	33	29	0	0	0	6	305	0	0	127	10	*521*
5:15 PM	---	5:30 PM	11	46	17	0	0	0	16	133	0	0	66	8	*297*
5:30 PM	---	5:45 PM	8	28	31	0	0	0	4	129	0	0	72	10	*282*
5:45 PM	---	6:00 PM	3	18	21	0	0	0	6	101	0	0	72	11	*232*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	31	110	77	0	0	0	15	858	0	0	382	26	*1,499*
4:15 PM	---	5:15 PM	38	125	95	0	0	0	14	938	0	0	406	30	*1,646*
4:30 PM	---	5:30 PM	46	153	89	0	0	0	26	914	0	0	373	31	*1,632*
4:45 PM	---	5:45 PM	43	148	101	0	0	0	30	772	0	0	334	37	*1,465*
5:00 PM	---	6:00 PM	33	125	98	0	0	0	32	668	0	0	337	39	*1,332*

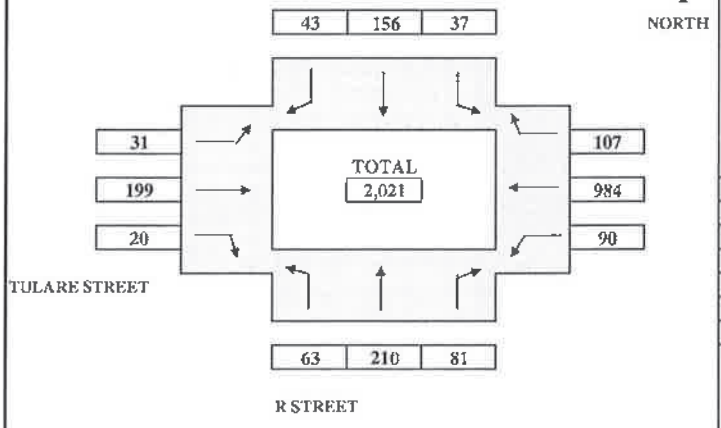
Telephone: (510)232-1271 Fax: (510)232-1272

P

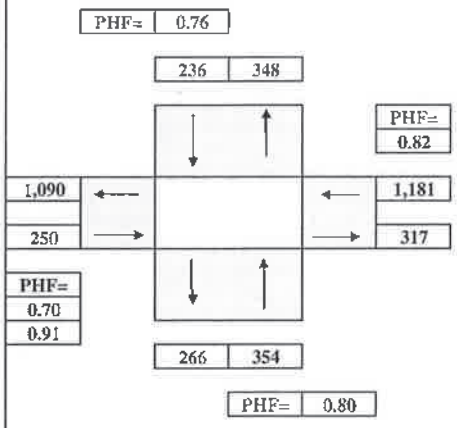
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/102009	DAY:	TUESDAY
N-S APPROACH:	R STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-67AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	7	12	20	6	23	1	3	29	3	14	117	23	*258*
7:15 AM	---	7:30 AM	18	55	41	9	49	7	5	62	8	54	272	36	*616*
7:30 AM	---	7:45 AM	30	101	65	24	91	12	14	96	12	81	470	64	*1,060*
7:45 AM	---	8:00 AM	51	167	88	34	142	29	24	149	16	112	774	88	*1,674*
8:00 AM	---	8:15 AM	66	217	103	38	184	41	32	202	22	129	1,016	107	*2,157*
8:15 AM	---	8:30 AM	81	265	122	46	205	50	36	261	28	144	1,256	143	*2,637*
8:30 AM	---	8:45 AM	89	308	137	66	245	58	40	336	34	161	1,425	177	*3,076*
8:45 AM	---	9:00 AM	100	366	150	74	271	68	49	405	45	171	1,557	201	*3,457*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	7	12	20	6	23	1	3	29	3	14	117	23	*258*
7:15 AM	---	7:30 AM	11	43	21	3	26	6	2	33	5	40	155	13	*358*
7:30 AM	---	7:45 AM	12	46	24	15	42	5	9	34	4	27	198	28	*444*
7:45 AM	---	8:00 AM	21	66	23	10	51	17	10	53	4	31	304	24	*614*
8:00 AM	---	8:15 AM	15	50	15	4	42	12	8	53	6	17	242	19	*483*
8:15 AM	---	8:30 AM	15	48	19	8	21	9	4	59	6	15	240	36	*480*
8:30 AM	---	8:45 AM	8	43	15	20	40	8	4	75	6	17	169	34	*439*
8:45 AM	---	9:00 AM	11	58	13	8	26	10	9	69	11	10	132	24	*381*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	51	167	88	34	142	29	24	149	16	112	774	88	*1,674*
7:15 AM	---	8:15 AM	59	205	83	32	161	40	29	173	19	115	899	84	*1,899*
7:30 AM	---	8:30 AM	63	210	81	37	156	43	31	199	20	90	984	107	*2,021*
7:45 AM	---	8:45 AM	59	207	72	42	154	46	26	240	22	80	955	113	*2,016*
8:00 AM	---	9:00 AM	49	199	62	40	129	39	25	256	29	59	783	113	*1,783*

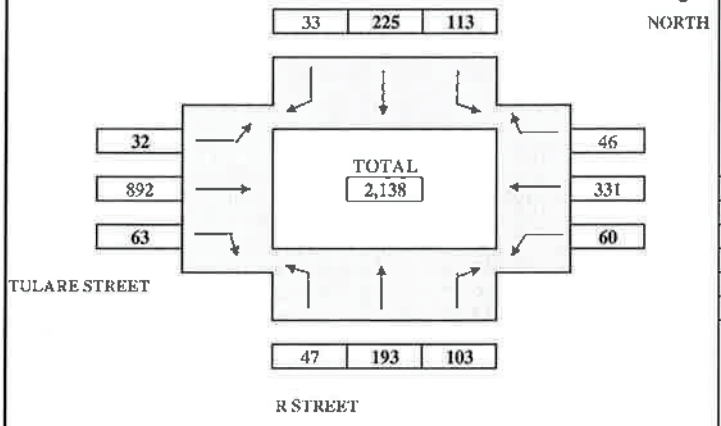
Telephone: (510)232-1271 Fax: (510)232-1272

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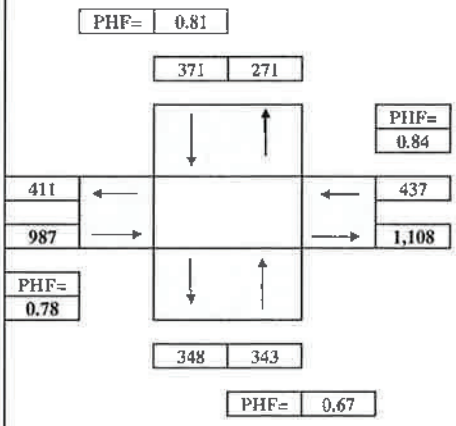
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/102009	DAY:	TUESDAY
N-S APPROACH:	R STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-67PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	8	40	28	24	61	6	15	194	12	23	96	9	*516*
4:15 PM	---	4:30 PM	21	72	48	54	107	17	21	352	22	43	178	18	*953*
4:30 PM	---	4:45 PM	30	112	84	83	164	27	30	595	40	58	267	26	*1,516*
4:45 PM	---	5:00 PM	40	150	101	108	210	30	40	800	50	70	325	40	*1,964*
5:00 PM	---	5:15 PM	55	233	131	137	286	39	47	1,086	75	83	427	55	*2,654*
5:15 PM	---	5:30 PM	61	299	157	162	327	43	57	1,211	83	104	478	76	*3,058*
5:30 PM	---	5:45 PM	65	333	178	187	382	46	60	1,354	90	122	545	86	*3,448*
5:45 PM	---	6:00 PM	67	366	199	203	410	48	67	1,464	95	133	613	99	*3,764*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	8	40	28	24	61	6	15	194	12	23	96	9	*516*
4:15 PM	---	4:30 PM	13	32	20	30	46	11	6	158	10	20	82	9	*437*
4:30 PM	---	4:45 PM	9	40	36	29	57	10	9	243	18	15	89	8	*563*
4:45 PM	---	5:00 PM	10	38	17	25	46	3	10	205	10	12	58	14	*448*
5:00 PM	---	5:15 PM	15	83	30	29	76	9	7	286	25	13	102	15	*690*
5:15 PM	---	5:30 PM	6	66	26	25	41	4	10	125	8	21	51	21	*404*
5:30 PM	---	5:45 PM	4	34	21	25	55	3	3	143	7	18	67	10	*390*
5:45 PM	---	6:00 PM	2	33	21	16	28	2	7	110	5	11	68	13	*316*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	40	150	101	108	210	30	40	800	50	70	325	40	*1,964*
4:15 PM	---	5:15 PM	47	193	103	113	225	33	32	892	63	60	331	46	*2,138*
4:30 PM	---	5:30 PM	40	227	109	108	220	26	36	859	61	61	300	58	*2,105*
4:45 PM	---	5:45 PM	35	221	94	104	218	19	30	759	50	64	278	60	*1,932*
5:00 PM	---	6:00 PM	27	216	98	95	200	18	27	664	45	63	288	59	*1,800*

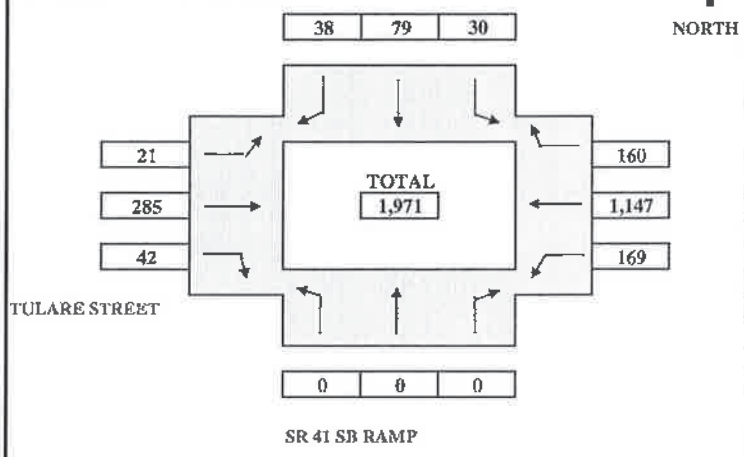
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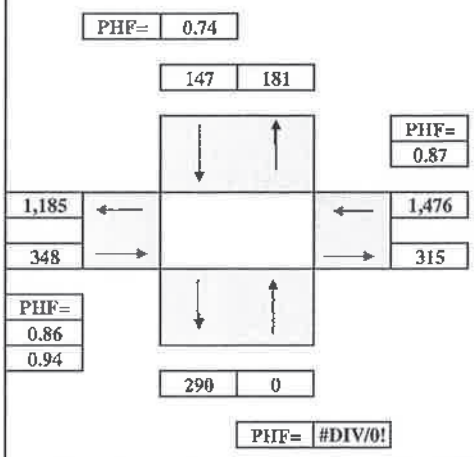
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	SR 41 SB RAMP	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-42AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	2	21	5	4	32	8	39	154	15	*280*
7:15 AM	---	7:30 AM	0	0	0	3	46	15	9	74	19	78	386	40	*670*
7:30 AM	---	7:45 AM	0	0	0	8	68	26	17	132	31	125	655	88	*1,150*
7:45 AM	---	8:00 AM	0	0	0	16	96	40	19	206	39	169	990	133	*1,708*
8:00 AM	---	8:15 AM	0	0	0	24	116	47	28	280	49	209	1,306	165	*2,224*
8:15 AM	---	8:30 AM	0	0	0	33	125	53	30	359	61	247	1,533	200	*2,641*
8:30 AM	---	8:45 AM	0	0	0	44	144	65	44	437	64	272	1,703	230	*3,003*
8:45 AM	---	9:00 AM	0	0	0	49	161	71	47	529	70	293	1,900	247	*3,367*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	2	21	5	4	32	8	39	154	15	*280*
7:15 AM	---	7:30 AM	0	0	0	1	25	10	5	42	11	39	232	25	*390*
7:30 AM	---	7:45 AM	0	0	0	5	22	11	8	58	12	47	269	48	*480*
7:45 AM	---	8:00 AM	0	0	0	8	28	14	2	74	8	44	335	45	*558*
8:00 AM	---	8:15 AM	0	0	0	8	20	7	9	74	10	40	316	32	*516*
8:15 AM	---	8:30 AM	0	0	0	9	9	6	2	79	12	38	227	35	*417*
8:30 AM	---	8:45 AM	0	0	0	11	19	12	14	78	3	25	170	30	*362*
8:45 AM	---	9:00 AM	0	0	0	5	17	6	3	92	6	21	197	17	*364*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	16	96	40	19	206	39	169	990	133	*1,708*
7:15 AM	---	8:15 AM	0	0	0	22	95	42	24	248	41	170	1,152	150	*1,944*
7:30 AM	---	8:30 AM	0	0	0	30	79	38	21	285	42	169	1,147	160	*1,971*
7:45 AM	---	8:45 AM	0	0	0	36	76	39	27	305	33	147	1,048	142	*1,853*
8:00 AM	---	9:00 AM	0	0	0	33	65	31	28	323	31	124	910	114	*1,659*

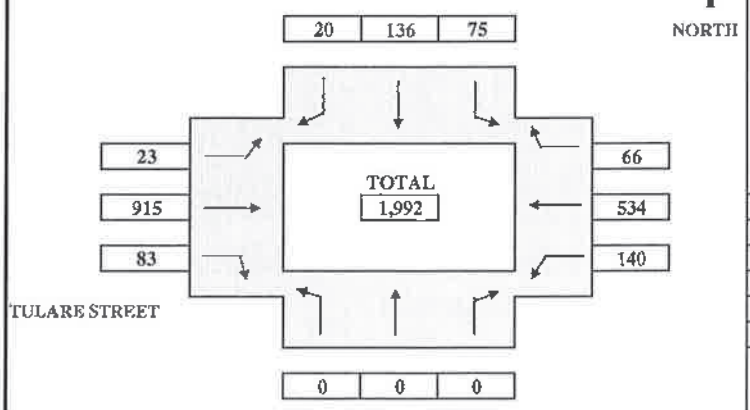
Telephone: (510)232-1271 Fax: (510)232-1272

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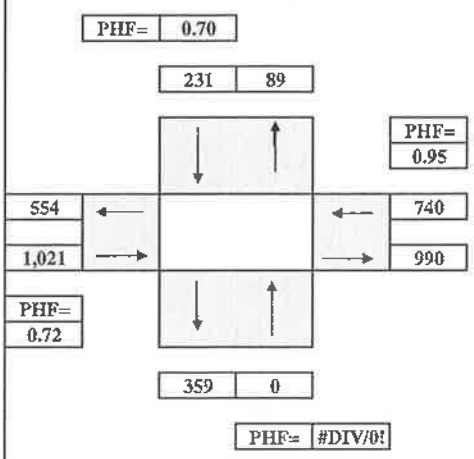
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	SR 41 SB RAMP	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-42PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	13	28	6	10	220	15	34	110	18	*454*
4:15 PM	---	4:30 PM	0	0	0	31	48	11	16	377	31	71	247	35	*867*
4:30 PM	---	4:45 PM	0	0	0	47	80	19	21	609	46	109	363	54	*1,348*
4:45 PM	---	5:00 PM	0	0	0	61	112	22	27	820	66	149	508	64	*1,829*
5:00 PM	---	5:15 PM	0	0	0	88	164	26	33	1,135	98	174	644	84	*2,446*
5:15 PM	---	5:30 PM	0	0	0	93	203	31	36	1,313	110	221	745	94	*2,846*
5:30 PM	---	5:45 PM	0	0	0	98	232	41	40	1,513	133	259	846	100	*3,262*
5:45 PM	---	6:00 PM	0	0	0	105	248	51	43	1,661	144	311	951	115	*3,629*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	13	28	6	10	220	15	34	110	18	*454*
4:15 PM	---	4:30 PM	0	0	0	18	20	5	6	157	16	37	137	17	*413*
4:30 PM	---	4:45 PM	0	0	0	16	32	8	5	232	15	38	116	19	*481*
4:45 PM	---	5:00 PM	0	0	0	14	32	3	6	211	20	40	145	10	*481*
5:00 PM	---	5:15 PM	0	0	0	27	52	4	6	315	32	25	136	20	*617*
5:15 PM	---	5:30 PM	0	0	0	5	39	5	3	178	12	47	101	10	*400*
5:30 PM	---	5:45 PM	0	0	0	5	29	10	4	200	23	38	101	6	*416*
5:45 PM	---	6:00 PM	0	0	0	7	16	10	3	148	11	52	105	15	*367*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	61	112	22	27	820	66	149	508	64	*1,829*
4:15 PM	---	5:15 PM	0	0	0	75	136	20	23	915	83	140	534	66	*1,992*
4:30 PM	---	5:30 PM	0	0	0	62	155	20	20	936	79	150	498	59	*1,979*
4:45 PM	---	5:45 PM	0	0	0	51	152	22	19	904	87	150	483	46	*1,914*
5:00 PM	---	6:00 PM	0	0	0	44	136	29	16	841	78	162	443	51	*1,800*

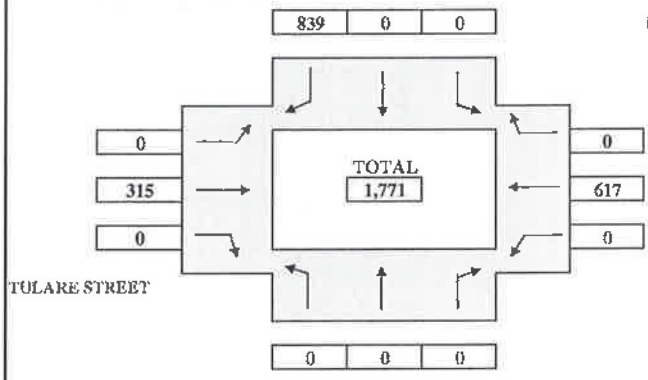
Telephone: (510)232-1271 Fax: (510)232-1272

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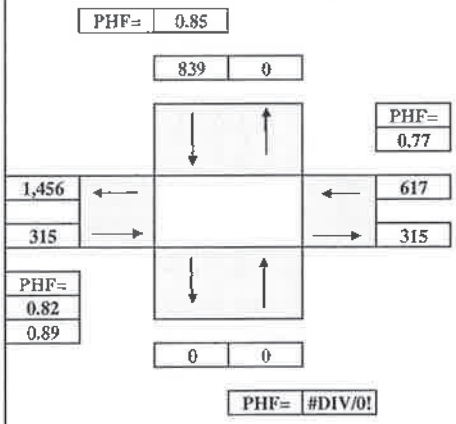
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT		SURVEY DATE:	11/5/2009	DAY: THURSDAY
N-S APPROACH:	DIVISADERO OFF RAMP (S of freeway Offramp)		SURVEY TIME:	7:00 AM	TO 9:00 AM
E-W APPROACH:	TULARE STREET		CITY: FRESNO		FILE: 2911072-70AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	0	0	100	0	34	0	0	133	0	*267*
7:15 AM	---	7:30 AM	0	0	0	0	0	302	0	77	0	0	250	0	*629*
7:30 AM	---	7:45 AM	0	0	0	0	0	510	0	140	0	0	395	0	*1,045*
7:45 AM	---	8:00 AM	0	0	0	0	0	758	0	222	0	0	595	0	*1,575*
8:00 AM	---	8:15 AM	0	0	0	0	0	961	0	304	0	0	749	0	*2,014*
8:15 AM	---	8:30 AM	0	0	0	0	0	1,141	0	392	0	0	867	0	*2,400*
8:30 AM	---	8:45 AM	0	0	0	0	0	1,270	0	481	0	0	965	0	*2,716*
8:45 AM	---	9:00 AM	0	0	0	0	0	1,372	0	577	0	0	1,058	0	*3,007*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	0	0	100	0	34	0	0	133	0	*267*
7:15 AM	---	7:30 AM	0	0	0	0	0	202	0	43	0	0	117	0	*362*
7:30 AM	---	7:45 AM	0	0	0	0	0	208	0	63	0	0	145	0	*416*
7:45 AM	---	8:00 AM	0	0	0	0	0	248	0	82	0	0	200	0	*530*
8:00 AM	---	8:15 AM	0	0	0	0	0	203	0	82	0	0	154	0	*439*
8:15 AM	---	8:30 AM	0	0	0	0	0	180	0	88	0	0	118	0	*386*
8:30 AM	---	8:45 AM	0	0	0	0	0	129	0	89	0	0	98	0	*316*
8:45 AM	---	9:00 AM	0	0	0	0	0	102	0	96	0	0	93	0	*291*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	0	0	758	0	222	0	0	595	0	*1,575*
7:15 AM	---	8:15 AM	0	0	0	0	0	861	0	270	0	0	616	0	*1,747*
7:30 AM	---	8:30 AM	0	0	0	0	0	839	0	315	0	0	617	0	*1,771*
7:45 AM	---	8:45 AM	0	0	0	0	0	760	0	341	0	0	570	0	*1,671*
8:00 AM	---	9:00 AM	0	0	0	0	0	614	0	355	0	0	463	0	*1,432*

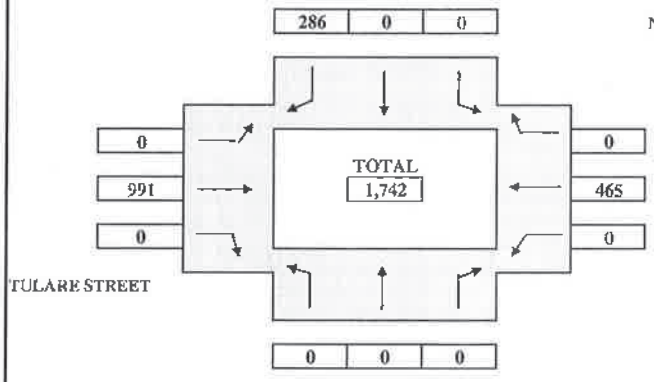
Telephone: (510)232-1271 Fax: (510)232-1272

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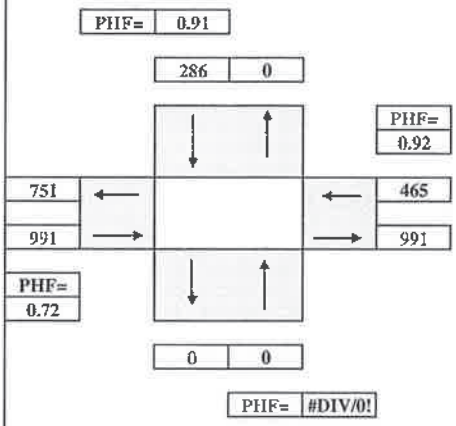
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT		SURVEY DATE:	11/5/2009	DAY: THURSDAY
N-S APPROACH:	DIVISADERO OFF RAMP (S of freeway Offramp)		SURVEY TIME:	4:00 PM	TO 6:00 PM
E-W APPROACH:	TULARE STREET		CITY: FRESNO		FILE: 2911072-70PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	0	0	62	0	233	0	0	112	0	*407*
4:15 PM	---	4:30 PM	0	0	0	0	0	133	0	409	0	0	217	0	*759*
4:30 PM	---	4:45 PM	0	0	0	0	0	212	0	657	0	0	328	0	*1,197*
4:45 PM	---	5:00 PM	0	0	0	0	0	289	0	882	0	0	451	0	*1,622*
5:00 PM	---	5:15 PM	0	0	0	0	0	348	0	1,224	0	0	577	0	*2,149*
5:15 PM	---	5:30 PM	0	0	0	0	0	398	0	1,407	0	0	681	0	*2,486*
5:30 PM	---	5:45 PM	0	0	0	0	0	459	0	1,612	0	0	771	0	*2,842*
5:45 PM	---	6:00 PM	0	0	0	0	0	521	0	1,768	0	0	862	0	*3,151*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	0	0	62	0	233	0	0	112	0	*407*
4:15 PM	---	4:30 PM	0	0	0	0	0	71	0	176	0	0	105	0	*352*
4:30 PM	---	4:45 PM	0	0	0	0	0	79	0	248	0	0	111	0	*438*
4:45 PM	---	5:00 PM	0	0	0	0	0	77	0	225	0	0	123	0	*425*
5:00 PM	---	5:15 PM	0	0	0	0	0	59	0	342	0	0	126	0	*527*
5:15 PM	---	5:30 PM	0	0	0	0	0	50	0	183	0	0	104	0	*337*
5:30 PM	---	5:45 PM	0	0	0	0	0	61	0	205	0	0	90	0	*356*
5:45 PM	---	6:00 PM	0	0	0	0	0	62	0	156	0	0	91	0	*309*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	0	0	289	0	882	0	0	451	0	*1,622*
4:15 PM	---	5:15 PM	0	0	0	0	0	286	0	991	0	0	465	0	*1,742*
4:30 PM	---	5:30 PM	0	0	0	0	0	265	0	998	0	0	464	0	*1,727*
4:45 PM	---	5:45 PM	0	0	0	0	0	247	0	955	0	0	443	0	*1,645*
5:00 PM	---	6:00 PM	0	0	0	0	0	232	0	886	0	0	411	0	*1,529*

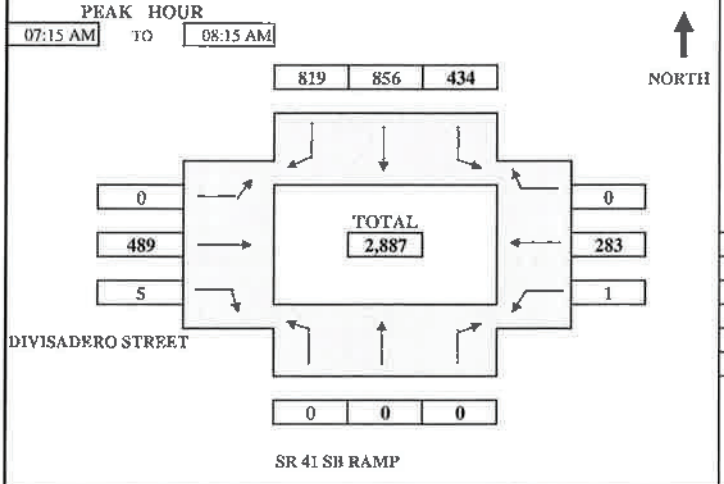
Telephone: (510)232-1271 Fax: (510)232-1272

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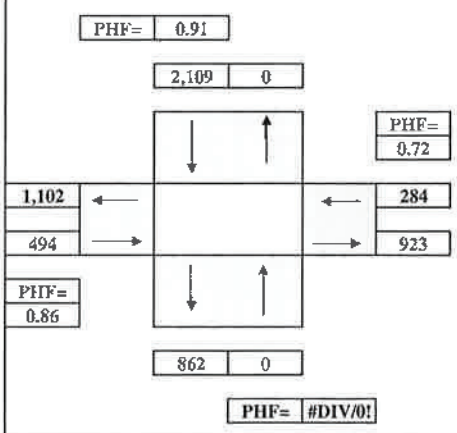
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	SR 41 SB RAMP	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-48AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	64	100	122	0	84	0	0	33	0	*403*
7:15 AM	---	7:30 AM	0	0	0	163	301	343	0	178	1	0	80	0	*1,066*
7:30 AM	---	7:45 AM	0	0	0	263	509	546	0	320	2	0	155	0	*1,795*
7:45 AM	---	8:00 AM	0	0	0	389	757	751	0	441	2	0	254	0	*2,594*
8:00 AM	---	8:15 AM	0	0	0	498	956	941	0	573	5	1	316	0	*3,290*
8:15 AM	---	8:30 AM	0	0	0	577	1,137	1,116	0	683	5	1	382	0	*3,901*
8:30 AM	---	8:45 AM	0	0	0	659	1,261	1,302	0	797	9	2	447	0	*4,477*
8:45 AM	---	9:00 AM	0	0	0	763	1,362	1,459	0	906	10	2	508	0	*5,010*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	64	100	122	0	84	0	0	33	0	*403*
7:15 AM	---	7:30 AM	0	0	0	99	201	221	0	94	1	0	47	0	*663*
7:30 AM	---	7:45 AM	0	0	0	100	208	203	0	142	1	0	75	0	*729*
7:45 AM	---	8:00 AM	0	0	0	126	248	205	0	121	0	0	99	0	*799*
8:00 AM	---	8:15 AM	0	0	0	109	199	190	0	132	3	1	62	0	*696*
8:15 AM	---	8:30 AM	0	0	0	79	181	175	0	110	0	0	66	0	*611*
8:30 AM	---	8:45 AM	0	0	0	82	124	186	0	114	4	1	65	0	*576*
8:45 AM	---	9:00 AM	0	0	0	104	101	157	0	109	1	0	61	0	*533*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	389	757	751	0	441	2	0	254	0	*2,594*
7:15 AM	---	8:15 AM	0	0	0	434	856	819	0	489	5	1	283	0	*2,887*
7:30 AM	---	8:30 AM	0	0	0	414	836	773	0	505	4	1	302	0	*2,835*
7:45 AM	---	8:45 AM	0	0	0	396	752	756	0	477	7	2	292	0	*2,682*
8:00 AM	---	9:00 AM	0	0	0	374	605	708	0	465	8	2	254	0	*2,416*

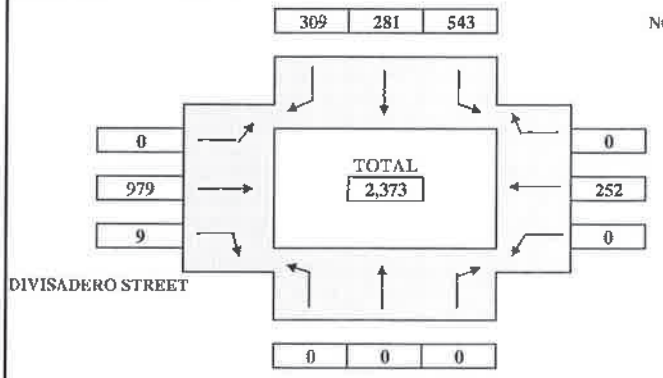
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

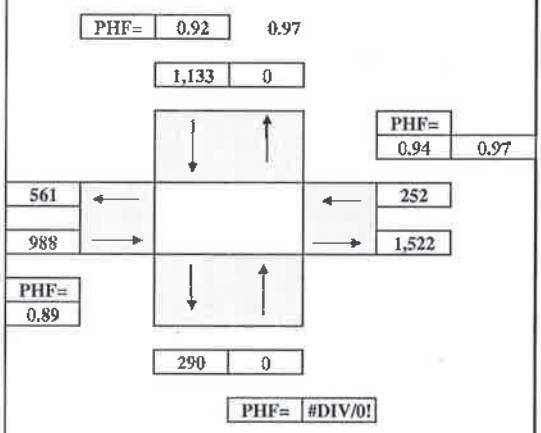
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	SR 41 SB RAMP	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-48PM

PEAK HOUR 04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	135	58	81	0	275	4	0	65	0	*618*
4:15 PM	---	4:30 PM	0	0	0	276	128	148	0	456	6	0	130	0	*1,144*
4:30 PM	---	4:45 PM	0	0	0	410	203	227	0	728	8	0	191	0	*1,767*
4:45 PM	---	5:00 PM	0	0	0	543	281	309	0	979	9	0	252	0	*2,373*
5:00 PM	---	5:15 PM	0	0	0	680	337	390	0	1,221	12	0	319	0	*2,959*
5:15 PM	---	5:30 PM	0	0	0	834	386	474	0	1,415	12	1	376	0	*3,498*
5:30 PM	---	5:45 PM	0	0	0	965	446	540	0	1,615	13	1	431	0	*4,011*
5:45 PM	---	6:00 PM	0	0	0	1,115	505	639	0	1,779	15	2	482	0	*4,537*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	135	58	81	0	275	4	0	65	0	*618*
4:15 PM	---	4:30 PM	0	0	0	141	70	67	0	181	2	0	65	0	*526*
4:30 PM	---	4:45 PM	0	0	0	134	75	79	0	272	2	0	61	0	*623*
4:45 PM	---	5:00 PM	0	0	0	133	78	82	0	251	1	0	61	0	*606*
5:00 PM	---	5:15 PM	0	0	0	137	56	81	0	242	3	0	67	0	*586*
5:15 PM	---	5:30 PM	0	0	0	154	49	84	0	194	0	1	57	0	*539*
5:30 PM	---	5:45 PM	0	0	0	131	60	66	0	200	1	0	55	0	*513*
5:45 PM	---	6:00 PM	0	0	0	150	59	99	0	164	2	1	51	0	*526*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	543	281	309	0	979	9	0	252	0	*2,373*
4:15 PM	---	5:15 PM	0	0	0	545	279	309	0	946	8	0	254	0	*2,341*
4:30 PM	---	5:30 PM	0	0	0	558	258	326	0	959	6	1	246	0	*2,354*
4:45 PM	---	5:45 PM	0	0	0	555	243	313	0	887	5	1	240	0	*2,244*
5:00 PM	---	6:00 PM	0	0	0	572	224	330	0	800	6	2	230	0	*2,164*

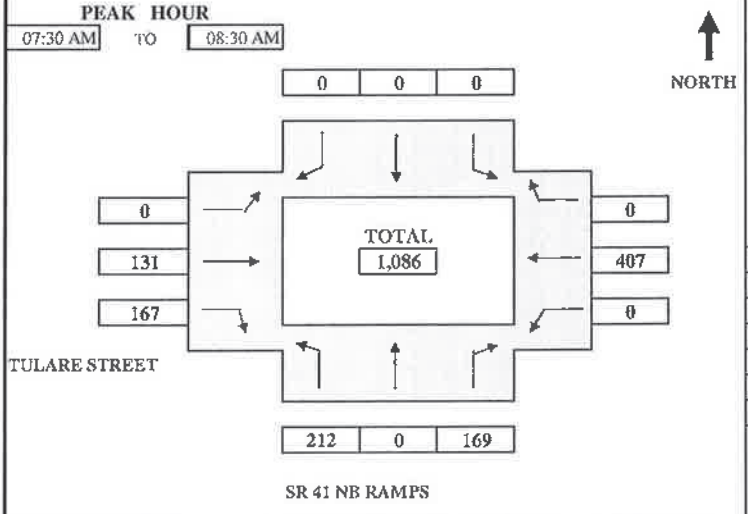
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B.A.Y.M.E.T.R.I.C.S.

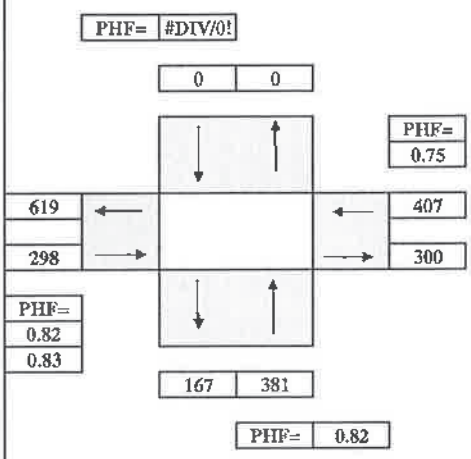
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	SR 41 NB RAMPS	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-41AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	33	0	29	0	0	0	0	14	27	0	100	0	*203*
7:15 AM	---	7:30 AM	63	0	57	0	0	0	0	36	48	0	187	0	*391*
7:30 AM	---	7:45 AM	109	0	103	0	0	0	0	63	85	0	286	0	*646*
7:45 AM	---	8:00 AM	176	0	152	0	0	0	0	104	134	0	421	0	*987*
8:00 AM	---	8:15 AM	224	0	184	0	0	0	0	139	165	0	527	0	*1,239*
8:15 AM	---	8:30 AM	275	0	226	0	0	0	0	167	215	0	594	0	*1,477*
8:30 AM	---	8:45 AM	313	0	265	0	0	0	0	215	258	0	654	0	*1,705*
8:45 AM	---	9:00 AM	345	0	305	0	0	0	0	259	302	0	715	0	*1,926*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	33	0	29	0	0	0	0	14	27	0	100	0	*203*
7:15 AM	---	7:30 AM	30	0	28	0	0	0	0	22	21	0	87	0	*188*
7:30 AM	---	7:45 AM	46	0	46	0	0	0	0	27	37	0	99	0	*255*
7:45 AM	---	8:00 AM	67	0	49	0	0	0	0	41	49	0	135	0	*341*
8:00 AM	---	8:15 AM	48	0	32	0	0	0	0	35	31	0	106	0	*252*
8:15 AM	---	8:30 AM	51	0	42	0	0	0	0	28	50	0	67	0	*238*
8:30 AM	---	8:45 AM	38	0	39	0	0	0	0	48	43	0	60	0	*228*
8:45 AM	---	9:00 AM	32	0	40	0	0	0	0	44	44	0	61	0	*221*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	176	0	152	0	0	0	0	104	134	0	421	0	*987*
7:15 AM	---	8:15 AM	191	0	155	0	0	0	0	125	138	0	427	0	*1,036*
7:30 AM	---	8:30 AM	212	0	169	0	0	0	0	131	167	0	407	0	*1,086*
7:45 AM	---	8:45 AM	204	0	162	0	0	0	0	152	173	0	368	0	*1,059*
8:00 AM	---	9:00 AM	169	0	153	0	0	0	0	155	168	0	294	0	*939*

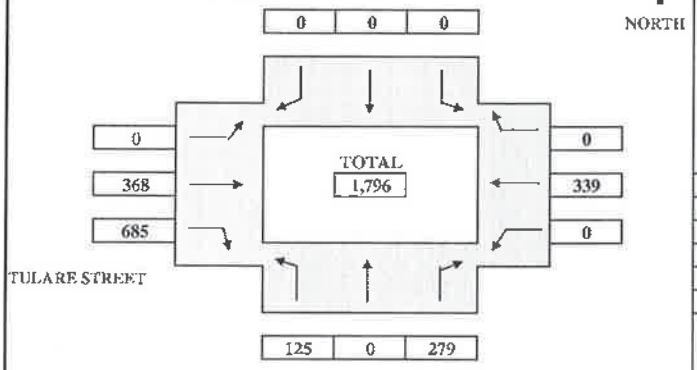
Telephone: (510)232-1271 Fax: (510)232-1272

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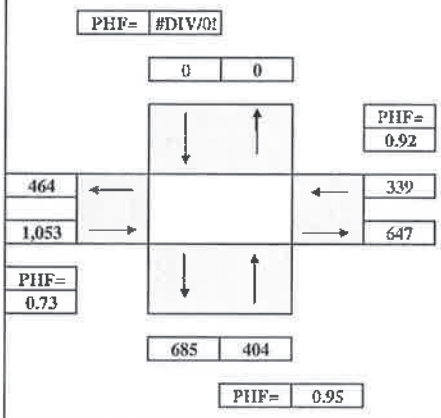
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	SR 41 NB RAMPS	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TULARE STREET	CITY: FRESNO		FILE:	2911072-41PM

PEAK HOUR 04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	33	0	59	0	0	0	0	78	166	0	79	0	*415*
4:15 PM	---	4:30 PM	68	0	112	0	0	0	0	131	285	0	148	0	*744*
4:30 PM	---	4:45 PM	101	0	182	0	0	0	0	209	451	0	226	0	*1,169*
4:45 PM	---	5:00 PM	134	0	245	0	0	0	0	279	623	0	316	0	*1,597*
5:00 PM	---	5:15 PM	168	0	317	0	0	0	0	418	847	0	408	0	*2,158*
5:15 PM	---	5:30 PM	193	0	391	0	0	0	0	499	970	0	487	0	*2,540*
5:30 PM	---	5:45 PM	220	0	466	0	0	0	0	564	1,112	0	550	0	*2,912*
5:45 PM	---	6:00 PM	236	0	525	0	0	0	0	612	1,211	0	624	0	*3,208*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	33	0	59	0	0	0	0	78	166	0	79	0	*415*
4:15 PM	---	4:30 PM	35	0	53	0	0	0	0	53	119	0	69	0	*329*
4:30 PM	---	4:45 PM	33	0	70	0	0	0	0	78	166	0	78	0	*425*
4:45 PM	---	5:00 PM	33	0	63	0	0	0	0	70	172	0	90	0	*428*
5:00 PM	---	5:15 PM	34	0	72	0	0	0	0	139	224	0	92	0	*561*
5:15 PM	---	5:30 PM	25	0	74	0	0	0	0	81	123	0	79	0	*382*
5:30 PM	---	5:45 PM	27	0	75	0	0	0	0	65	142	0	63	0	*372*
5:45 PM	---	6:00 PM	16	0	59	0	0	0	0	48	99	0	74	0	*296*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	134	0	245	0	0	0	0	279	623	0	316	0	*1,597*
4:15 PM	---	5:15 PM	135	0	258	0	0	0	0	340	681	0	329	0	*1,743*
4:30 PM	---	5:30 PM	125	0	279	0	0	0	0	368	685	0	339	0	*1,796*
4:45 PM	---	5:45 PM	119	0	284	0	0	0	0	355	661	0	324	0	*1,743*
5:00 PM	---	6:00 PM	102	0	280	0	0	0	0	333	588	0	308	0	*1,611*

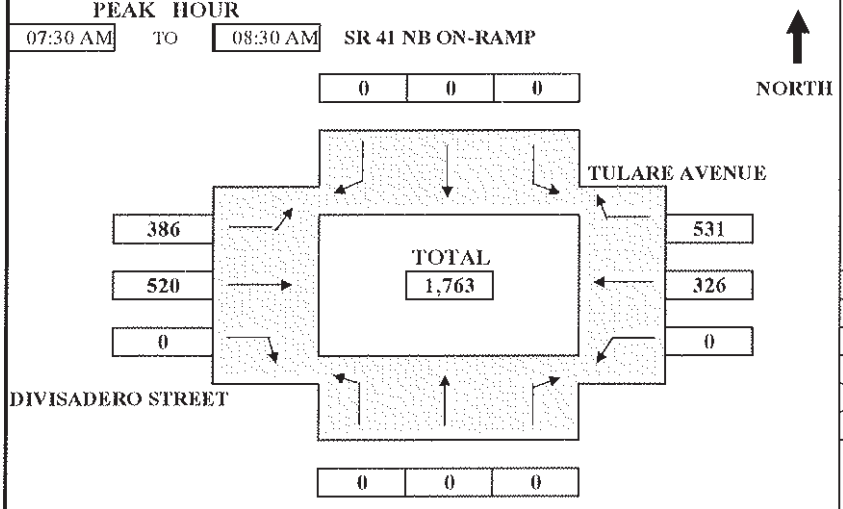
Telephone: (510)232-1271 Fax: (510)232-1272

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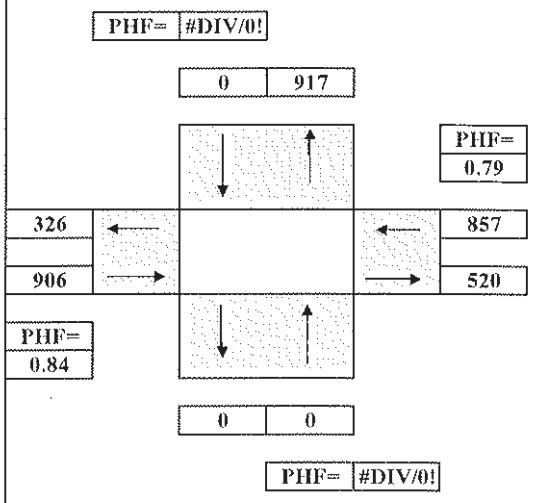
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	3/24/2010	DAY:	WEDNESDAY
N-S APPROACH:	SR 41 NB ON-RAMP	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	3003020-AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	0	0	0	61	54	0	0	30	89	*234*
7:15 AM	---	7:30 AM	0	0	0	0	0	0	129	164	0	0	88	205	*586*
7:30 AM	---	7:45 AM	0	0	0	0	0	0	288	276	0	0	145	336	*1,045*
7:45 AM	---	8:00 AM	0	0	0	0	0	0	375	415	0	0	254	498	*1,542*
8:00 AM	---	8:15 AM	0	0	0	0	0	0	438	567	0	0	339	623	*1,967*
8:15 AM	---	8:30 AM	0	0	0	0	0	0	515	684	0	0	414	736	*2,349*
8:30 AM	---	8:45 AM	0	0	0	0	0	0	582	794	0	0	486	878	*2,740*
8:45 AM	---	9:00 AM	0	0	0	0	0	0	641	923	0	0	555	994	*3,113*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	0	0	0	61	54	0	0	30	89	*234*
7:15 AM	---	7:30 AM	0	0	0	0	0	0	68	110	0	0	58	116	*352*
7:30 AM	---	7:45 AM	0	0	0	0	0	0	159	112	0	0	57	131	*459*
7:45 AM	---	8:00 AM	0	0	0	0	0	0	87	139	0	0	109	162	*497*
8:00 AM	---	8:15 AM	0	0	0	0	0	0	63	152	0	0	85	125	*425*
8:15 AM	---	8:30 AM	0	0	0	0	0	0	77	117	0	0	75	113	*382*
8:30 AM	---	8:45 AM	0	0	0	0	0	0	67	110	0	0	72	142	*391*
8:45 AM	---	9:00 AM	0	0	0	0	0	0	59	129	0	0	69	116	*373*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	0	0	0	375	415	0	0	254	498	*1,542*
7:15 AM	---	8:15 AM	0	0	0	0	0	0	377	513	0	0	309	534	*1,733*
7:30 AM	---	8:30 AM	0	0	0	0	0	0	386	520	0	0	326	531	*1,763*
7:45 AM	---	8:45 AM	0	0	0	0	0	0	294	518	0	0	341	542	*1,695*
8:00 AM	---	9:00 AM	0	0	0	0	0	0	266	508	0	0	301	496	*1,571*

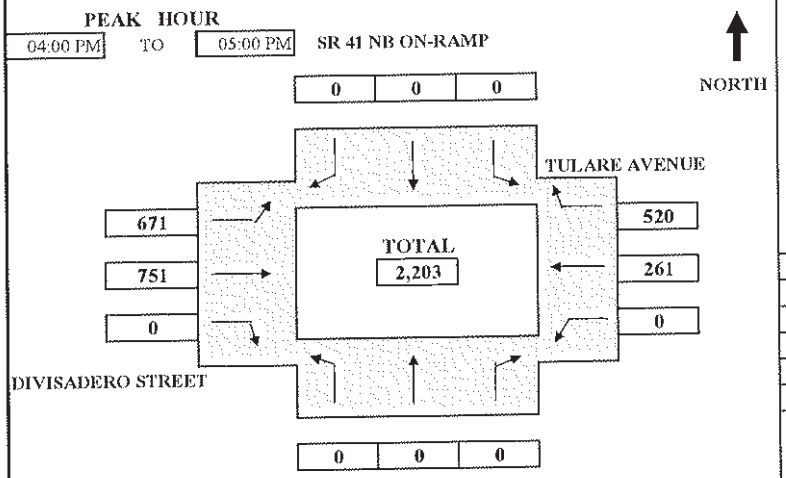
Telephone: (510)232-1271 Fax: (510)232-1272

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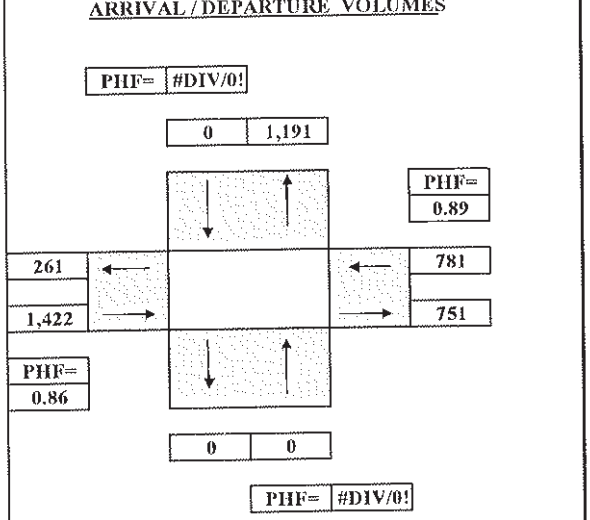
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	3/24/2010	DAY:	WEDNESDAY
N-S APPROACH:	SR 41 NB ON-RAMP	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	3003020-PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	0	0	0	194	220	0	0	69	120	*603*
4:15 PM	---	4:30 PM	0	0	0	0	0	0	340	395	0	0	136	273	*1,144*
4:30 PM	---	4:45 PM	0	0	0	0	0	0	513	589	0	0	188	388	*1,678*
4:45 PM	---	5:00 PM	0	0	0	0	0	0	671	751	0	0	261	520	*2,203*
5:00 PM	---	5:15 PM	0	0	0	0	0	0	861	957	0	0	332	632	*2,782*
5:15 PM	---	5:30 PM	0	0	0	0	0	0	1,025	1,179	0	0	396	746	*3,346*
5:30 PM	---	5:45 PM	0	0	0	0	0	0	1,164	1,373	0	0	445	868	*3,850*
5:45 PM	---	6:00 PM	0	0	0	0	0	0	1,281	1,523	0	0	490	984	*4,278*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	0	0	0	194	220	0	0	69	120	*603*
4:15 PM	---	4:30 PM	0	0	0	0	0	0	146	175	0	0	67	153	*541*
4:30 PM	---	4:45 PM	0	0	0	0	0	0	173	194	0	0	52	115	*534*
4:45 PM	---	5:00 PM	0	0	0	0	0	0	158	162	0	0	73	132	*525*
5:00 PM	---	5:15 PM	0	0	0	0	0	0	190	206	0	0	71	112	*579*
5:15 PM	---	5:30 PM	0	0	0	0	0	0	164	222	0	0	64	114	*564*
5:30 PM	---	5:45 PM	0	0	0	0	0	0	139	194	0	0	49	122	*504*
5:45 PM	---	6:00 PM	0	0	0	0	0	0	117	150	0	0	45	116	*428*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	0	0	0	671	751	0	0	261	520	*2,203*
4:15 PM	---	5:15 PM	0	0	0	0	0	0	667	737	0	0	263	512	*2,179*
4:30 PM	---	5:30 PM	0	0	0	0	0	0	685	784	0	0	260	473	*2,202*
4:45 PM	---	5:45 PM	0	0	0	0	0	0	651	784	0	0	257	480	*2,172*
5:00 PM	---	6:00 PM	0	0	0	0	0	0	610	772	0	0	229	464	*2,075*

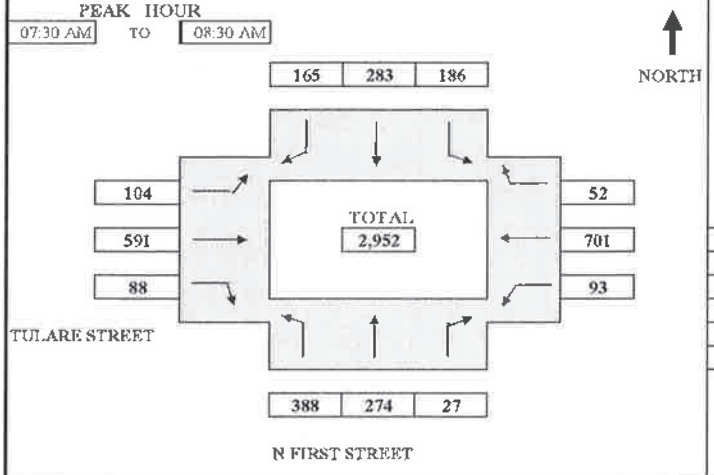
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

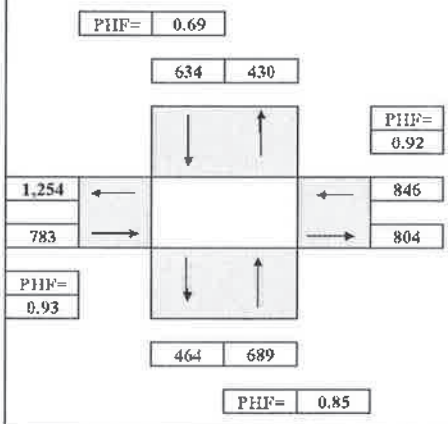
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N FIRST STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	291072-55AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	85	40	4	8	48	22	14	78	14	18	94	8	*433*
7:15 AM	---	7:30 AM	129	94	7	29	90	53	38	188	44	21	228	19	*940*
7:30 AM	---	7:45 AM	239	171	21	46	152	94	64	318	72	37	396	34	*1,644*
7:45 AM	---	8:00 AM	320	242	22	101	218	136	83	473	100	61	572	46	*2,374*
8:00 AM	---	8:15 AM	435	325	27	178	327	181	116	638	113	92	759	58	*3,249*
8:15 AM	---	8:30 AM	517	368	34	215	373	218	142	779	132	114	929	71	*3,892*
8:30 AM	---	8:45 AM	615	421	40	280	434	241	189	930	154	136	1,057	81	*4,578*
8:45 AM	---	9:00 AM	680	455	43	331	482	274	202	1,034	163	162	1,191	99	*5,116*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	85	40	4	8	48	22	14	78	14	18	94	8	*433*
7:15 AM	---	7:30 AM	44	54	3	21	42	31	24	110	30	3	134	11	*507*
7:30 AM	---	7:45 AM	110	77	14	17	62	41	26	130	28	16	168	15	*704*
7:45 AM	---	8:00 AM	81	71	1	55	66	42	19	155	28	24	176	12	*730*
8:00 AM	---	8:15 AM	115	83	5	77	109	45	33	165	13	31	187	12	*875*
8:15 AM	---	8:30 AM	82	43	7	37	46	37	26	141	19	22	170	13	*643*
8:30 AM	---	8:45 AM	98	53	6	65	61	23	47	151	22	22	128	10	*686*
8:45 AM	---	9:00 AM	65	34	3	51	48	33	13	104	9	26	134	18	*538*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	320	242	22	101	218	136	83	473	100	61	572	46	*2,374*
7:15 AM	---	8:15 AM	350	285	23	170	279	159	102	560	99	74	665	50	*2,816*
7:30 AM	---	8:30 AM	388	274	27	186	283	165	104	591	88	93	701	52	*2,952*
7:45 AM	---	8:45 AM	376	250	19	234	282	147	125	612	82	99	661	47	*2,934*
8:00 AM	---	9:00 AM	360	213	21	230	264	138	119	561	63	101	619	53	*2,742*

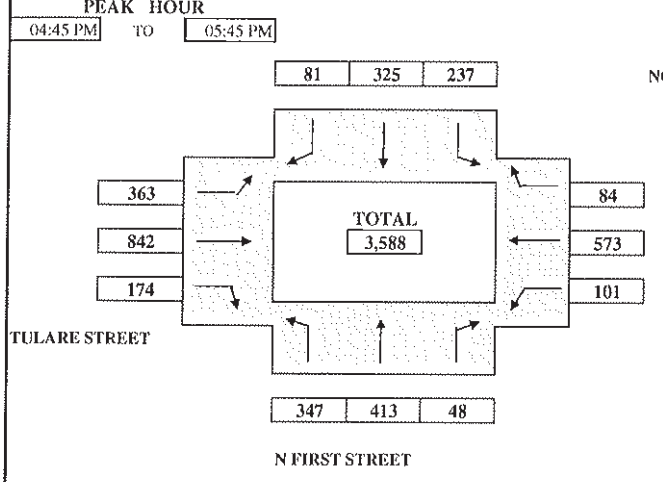
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

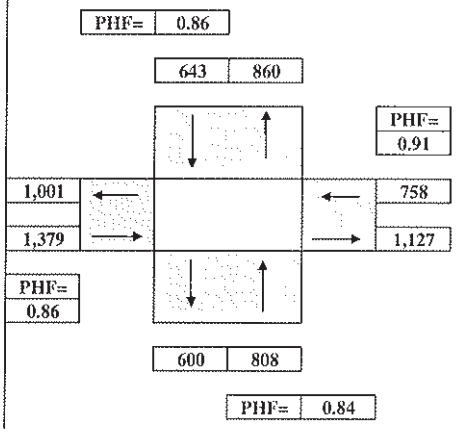
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N FIRST STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TULARE STREET	CITY:	FRESNO	FILE:	2911072-55PM

PEAK HOUR
04:45 PM TO 05:45 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	84	104	6	58	89	27	78	223	43	25	164	14	*915*
4:15 PM	---	4:30 PM	160	189	19	93	151	59	135	356	91	40	292	31	*1,616*
4:30 PM	---	4:45 PM	240	294	31	154	255	81	195	533	127	64	398	51	*2,423*
4:45 PM	---	5:00 PM	307	397	38	219	334	104	241	706	173	90	529	74	*3,212*
5:00 PM	---	5:15 PM	416	518	49	283	441	119	340	962	217	119	684	99	*4,247*
5:15 PM	---	5:30 PM	493	614	59	334	506	139	453	1,150	253	143	833	109	*5,086*
5:30 PM	---	5:45 PM	587	707	79	391	580	162	558	1,375	301	165	971	135	*6,011*
5:45 PM	---	6:00 PM	655	757	91	445	663	181	598	1,502	334	184	1,051	148	*6,609*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	84	104	6	58	89	27	78	223	43	25	164	14	*915*
4:15 PM	---	4:30 PM	76	85	13	35	62	32	57	133	48	15	128	17	*701*
4:30 PM	---	4:45 PM	80	105	12	61	104	22	60	177	36	24	106	20	*807*
4:45 PM	---	5:00 PM	67	103	7	65	79	23	46	173	46	26	131	23	*789*
5:00 PM	---	5:15 PM	109	121	11	64	107	15	99	256	44	29	155	25	*1,035*
5:15 PM	---	5:30 PM	77	96	10	51	65	20	113	188	36	24	149	10	*839*
5:30 PM	---	5:45 PM	94	93	20	57	74	23	105	225	48	22	138	26	*925*
5:45 PM	---	6:00 PM	68	50	12	54	83	19	40	127	33	19	80	13	*598*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	307	397	38	219	334	104	241	706	173	90	529	74	*3,212*
4:15 PM	---	5:15 PM	332	414	43	225	352	92	262	739	174	94	520	85	*3,332*
4:30 PM	---	5:30 PM	333	425	40	241	355	80	318	794	162	103	541	78	*3,470*
4:45 PM	---	5:45 PM	347	413	48	237	325	81	363	842	174	101	573	84	*3,588*
5:00 PM	---	6:00 PM	348	360	53	226	329	77	357	796	161	94	522	74	*3,397*

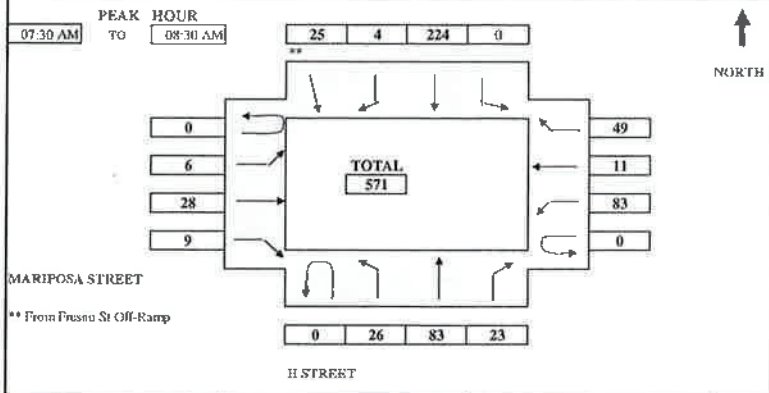
Telephone: (510)232-1271 Fax: (510)232-1272

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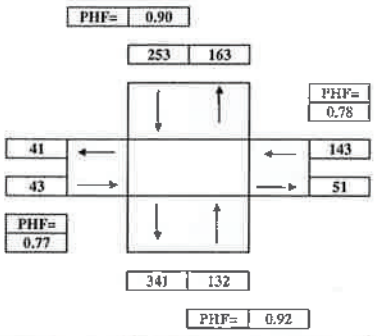
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	Thursday
N-S APPROACH:	H STREET / FRESNO RAMP	SURVEY TIME:	7:00 AM TO 9:00 AM		
E-W APPROACH:	MARIPOSA STREET	CITY:	FRESNO	FILE:	2911072-61AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND U-Turn	Left	Thru	Right	SOUTHBOUND Freno St	Left	Thru	Right	EASTBOUND U-Turn	Left	Thru	Right	WESTBOUND U-Turn	Left	Thru	Right	TOTAL
SURVEY DATA																			
7:00 AM	---	7:15 AM	0	3	15	2	4	0	36	0	0	1	6	1	0	18	1	18	*105*
7:15 AM	---	7:30 AM	0	9	32	7	7	0	77	0	0	1	9	1	0	29	2	23	*197*
7:30 AM	---	7:45 AM	0	15	53	11	14	0	129	1	0	3	18	3	0	47	4	36	*334*
7:45 AM	---	8:00 AM	0	22	76	17	21	0	184	1	0	5	27	6	0	65	4	47	*475*
8:00 AM	---	8:15 AM	0	30	97	22	26	0	247	3	0	6	30	8	0	89	5	57	*620*
8:15 AM	---	8:30 AM	0	35	115	30	32	0	301	4	0	7	37	10	0	112	13	72	*768*
8:30 AM	---	8:45 AM	0	36	130	35	38	0	347	6	0	8	39	13	0	130	15	84	*881*
8:45 AM	---	9:00 AM	0	39	143	38	44	0	372	6	0	10	45	15	0	146	15	98	*971*
TOTAL BY PERIOD																			
7:00 AM	---	7:15 AM	0	3	15	2	4	0	36	0	0	1	6	1	0	18	1	18	*105*
7:15 AM	---	7:30 AM	0	6	17	5	3	0	41	0	0	0	3	0	0	11	1	5	*92*
7:30 AM	---	7:45 AM	0	6	21	4	7	0	52	1	0	2	9	2	0	18	2	13	*137*
7:45 AM	---	8:00 AM	0	7	23	6	7	0	55	0	0	2	9	3	0	18	0	11	*141*
8:00 AM	---	8:15 AM	0	8	21	5	5	0	63	2	0	1	3	2	0	24	1	10	*145*
8:15 AM	---	8:30 AM	0	5	18	8	6	0	54	1	0	1	7	2	0	23	8	15	*148*
8:30 AM	---	8:45 AM	0	1	15	5	6	0	46	2	0	1	2	3	0	18	2	12	*113*
8:45 AM	---	9:00 AM	0	3	13	3	6	0	25	0	0	2	6	2	0	16	0	14	*90*
HOURLY TOTALS																			
7:00 AM	---	8:00 AM	0	22	76	17	21	0	184	1	0	5	27	6	0	65	4	47	*475*
7:15 AM	---	8:15 AM	0	27	82	20	22	0	211	3	0	5	24	7	0	71	4	39	*515*
7:30 AM	---	8:30 AM	0	26	83	23	25	0	224	4	0	6	28	9	0	83	11	49	*571*
7:45 AM	---	8:45 AM	0	21	77	24	24	0	218	5	0	5	21	10	0	83	11	48	*547*
8:00 AM	---	9:00 AM	0	17	67	21	23	0	188	5	0	5	18	9	0	81	11	51	*496*

Telephone: (510)232-1271 Fax: (510)232-1272

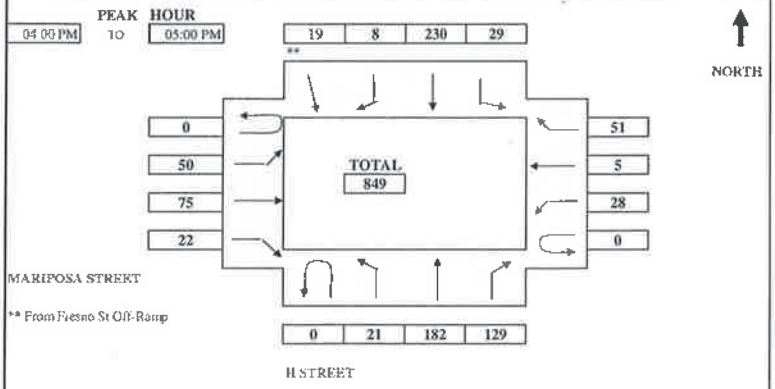
B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

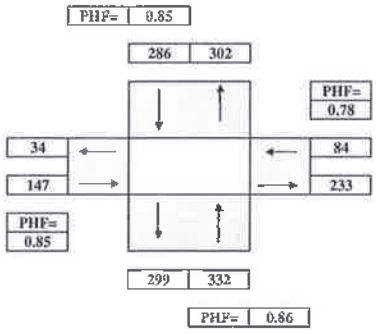
PROJECT:	IST PROJECT		SURVEY DATE:	11/12/2009	DAY: Thursday
N-S APPROACH:	H STREET / FRESNO RAMP		SURVEY TIME:	4:00 PM TO 6:00 PM	
E-W APPROACH:	MARIPOSA STREET		CITY: FRESNO		FILE: 2911072-61PM

PEAK HOUR

04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
From		To	U-Turn	Left	Thru	Right	Freno St	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	TOTAL
SURVEY DATA																			
4:00 PM	---	4:15 PM	0	3	47	25	4	7	63	1	0	15	23	5	0	9	2	16	*220*
4:15 PM	---	4:30 PM	0	7	95	54	8	16	133	2	0	28	42	9	0	15	3	31	*443*
4:30 PM	---	4:45 PM	0	16	143	94	14	21	190	4	0	40	57	15	0	19	3	42	*658*
4:45 PM	---	5:00 PM	0	21	182	129	19	29	230	8	0	50	75	22	0	28	5	51	*849*
5:00 PM	---	5:15 PM	0	28	228	162	25	35	268	10	0	62	86	28	0	35	8	65	*1,040*
5:15 PM	---	5:30 PM	0	32	262	191	28	38	309	10	0	71	95	32	0	42	9	73	*1,192*
5:30 PM	---	5:45 PM	0	32	299	213	33	39	340	11	0	78	100	35	0	47	10	83	*1,320*
5:45 PM	---	6:00 PM	0	33	328	232	35	42	365	11	0	82	105	36	0	51	10	91	*1,421*
TOTAL BY PERIOD																			
4:00 PM	---	4:15 PM	0	3	47	25	4	7	63	1	0	15	23	5	0	9	2	16	*220*
4:15 PM	---	4:30 PM	0	4	48	29	4	9	70	1	0	13	19	4	0	6	1	15	*223*
4:30 PM	---	4:45 PM	0	9	48	40	6	5	57	2	0	12	15	6	0	4	0	11	*215*
4:45 PM	---	5:00 PM	0	5	39	35	5	8	40	4	0	10	18	7	0	9	2	9	*191*
5:00 PM	---	5:15 PM	0	7	46	33	6	6	38	2	0	12	11	6	0	7	3	14	*191*
5:15 PM	---	5:30 PM	0	4	34	29	3	3	41	0	0	9	9	4	0	7	1	8	*152*
5:30 PM	---	5:45 PM	0	0	37	22	5	1	31	1	0	7	5	3	0	5	1	10	*128*
5:45 PM	---	6:00 PM	0	1	29	19	2	3	25	0	0	4	5	1	0	4	0	8	*101*
HOURLY TOTALS																			
4:00 PM	---	5:00 PM	0	21	182	129	19	29	230	8	0	50	75	22	0	28	5	51	*849*
4:15 PM	---	5:15 PM	0	25	181	137	21	28	205	9	0	47	63	23	0	26	6	49	*820*
4:30 PM	---	5:30 PM	0	25	167	137	20	22	176	8	0	43	53	23	0	27	6	42	*749*
4:45 PM	---	5:45 PM	0	16	156	119	19	18	150	7	0	38	43	20	0	28	7	41	*662*
5:00 PM	---	6:00 PM	0	12	146	103	16	13	135	3	0	32	30	14	0	23	5	40	*572*

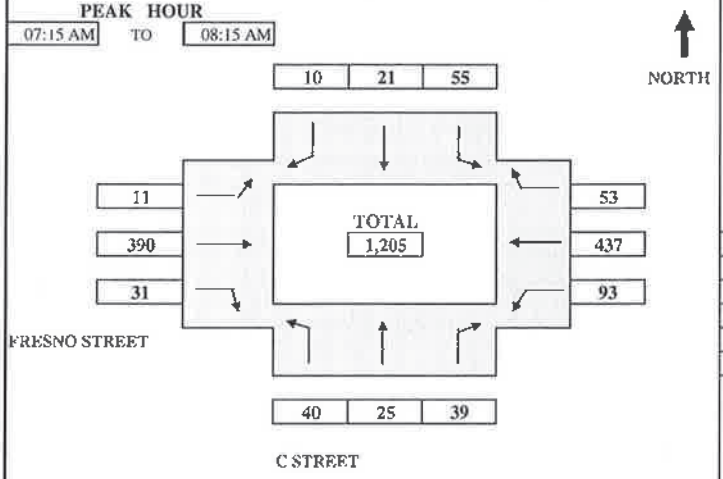
Telephone: (510)232-1271 Fax: (510)232-1272

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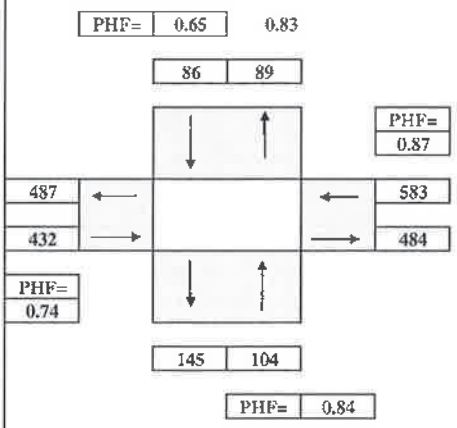
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	C STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-54AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	6	1	3	0	0	4	3	66	3	4	71	6	*167*
7:15 AM	---	7:30 AM	12	8	11	16	6	8	5	204	9	25	168	21	*493*
7:30 AM	---	7:45 AM	26	12	19	26	10	11	8	266	19	38	311	32	*778*
7:45 AM	---	8:00 AM	38	20	30	39	15	12	13	361	28	72	402	44	*1,074*
8:00 AM	---	8:15 AM	46	26	42	55	21	14	14	456	34	97	508	59	*1,372*
8:15 AM	---	8:30 AM	46	33	48	65	27	17	17	530	41	120	576	67	*1,587*
8:30 AM	---	8:45 AM	64	37	56	78	30	20	19	607	48	133	660	83	*1,835*
8:45 AM	---	9:00 AM	72	45	61	97	41	23	20	679	53	147	714	111	*2,063*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	6	1	3	0	0	4	3	66	3	4	71	6	*167*
7:15 AM	---	7:30 AM	6	7	8	16	6	4	2	138	6	21	97	15	*326*
7:30 AM	---	7:45 AM	14	4	8	10	4	3	3	62	10	13	143	11	*285*
7:45 AM	---	8:00 AM	12	8	11	13	5	1	5	95	9	34	91	12	*296*
8:00 AM	---	8:15 AM	8	6	12	16	6	2	1	95	6	25	106	15	*298*
8:15 AM	---	8:30 AM	0	7	6	10	6	3	3	74	7	23	68	8	*215*
8:30 AM	---	8:45 AM	18	4	8	13	3	3	2	77	7	13	84	16	*248*
8:45 AM	---	9:00 AM	8	8	5	19	11	3	1	72	5	14	54	28	*228*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	38	20	30	39	15	12	13	361	28	72	402	44	*1,074*
7:15 AM	---	8:15 AM	40	25	39	55	21	10	11	390	31	93	437	53	*1,205*
7:30 AM	---	8:30 AM	34	25	37	49	21	9	12	326	32	95	408	46	*1,094*
7:45 AM	---	8:45 AM	38	25	37	52	20	9	11	341	29	95	349	51	*1,057*
8:00 AM	---	9:00 AM	34	25	31	58	26	11	7	318	25	75	312	67	*989*

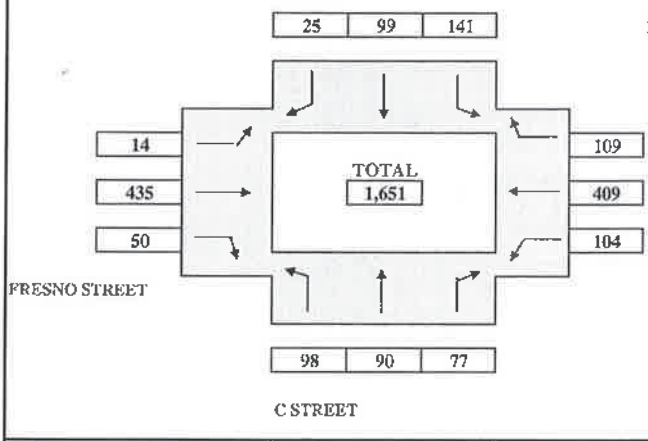
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

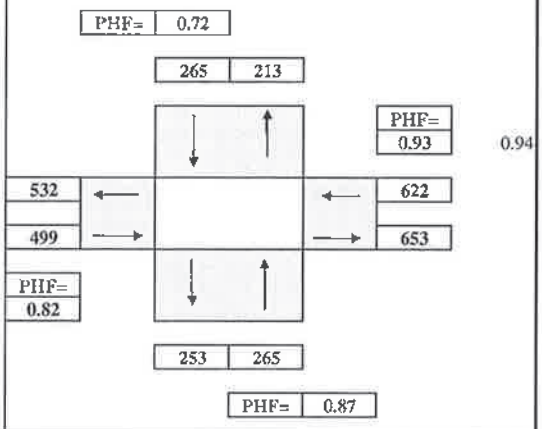
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	C STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-54PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	18	22	15	7	11	5	6	110	12	15	96	38	*355*
4:15 PM	---	4:30 PM	49	45	37	66	35	14	8	183	23	43	201	61	*765*
4:30 PM	---	4:45 PM	65	70	57	94	60	18	10	285	33	72	307	91	*1,162*
4:45 PM	---	5:00 PM	94	94	74	125	76	23	13	416	45	95	411	110	*1,576*
5:00 PM	---	5:15 PM	116	112	92	148	110	30	20	545	62	119	505	147	*2,006*
5:15 PM	---	5:30 PM	139	132	114	185	125	33	31	616	73	136	616	187	*2,387*
5:30 PM	---	5:45 PM	153	152	132	217	144	39	33	711	79	147	701	203	*2,711*
5:45 PM	---	6:00 PM	165	171	144	243	160	49	38	785	90	165	782	228	*3,020*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	18	22	15	7	11	5	6	110	12	15	96	38	*355*
4:15 PM	---	4:30 PM	31	23	22	59	24	9	2	73	11	28	105	23	*410*
4:30 PM	---	4:45 PM	16	25	20	28	25	4	2	102	10	29	106	30	*397*
4:45 PM	---	5:00 PM	29	24	17	31	16	5	3	131	12	23	104	19	*414*
5:00 PM	---	5:15 PM	22	18	18	23	34	7	7	129	17	24	94	37	*430*
5:15 PM	---	5:30 PM	23	20	22	37	15	3	11	71	11	17	111	40	*381*
5:30 PM	---	5:45 PM	14	20	18	32	19	6	2	95	6	11	85	16	*324*
5:45 PM	---	6:00 PM	12	19	12	26	16	10	5	74	11	18	81	25	*309*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	94	94	74	125	76	23	13	416	45	95	411	110	*1,576*
4:15 PM	---	5:15 PM	98	90	77	141	99	25	14	435	50	104	409	109	*1,651*
4:30 PM	---	5:30 PM	90	87	77	119	90	19	23	433	50	93	415	126	*1,622*
4:45 PM	---	5:45 PM	88	82	75	123	84	21	23	426	46	75	394	112	*1,549*
5:00 PM	---	6:00 PM	71	77	70	118	84	26	25	369	45	70	371	118	*1,444*

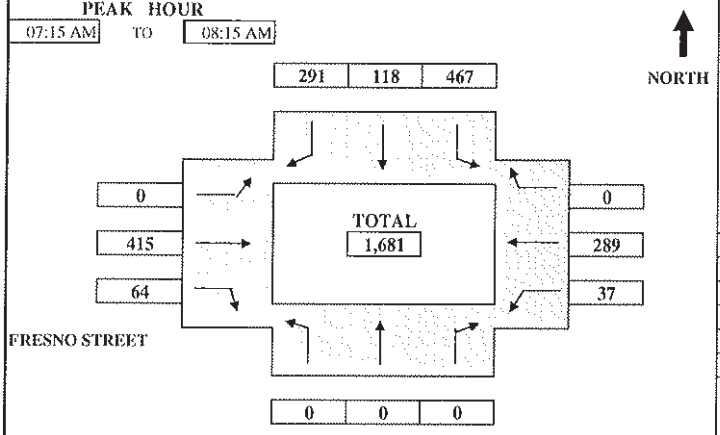
Telephone: (510)232-1271 Fax: (510)232-1272

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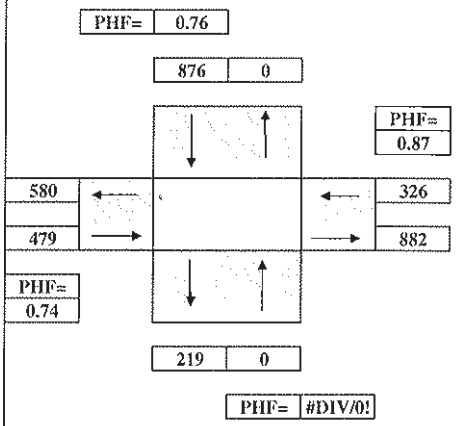
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	SR 99 SB RAMPS	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-40AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	65	19	31	0	61	6	11	47	0	*240*
7:15 AM	---	7:30 AM	0	0	0	111	37	114	0	212	17	22	97	0	*610*
7:30 AM	---	7:45 AM	0	0	0	285	66	199	0	271	33	34	179	0	*1,067*
7:45 AM	---	8:00 AM	0	0	0	411	97	262	0	375	48	44	250	0	*1,487*
8:00 AM	---	8:15 AM	0	0	0	532	137	322	0	476	70	48	336	0	*1,921*
8:15 AM	---	8:30 AM	0	0	0	659	161	364	0	548	85	74	393	0	*2,284*
8:30 AM	---	8:45 AM	0	0	0	752	183	411	0	629	102	102	459	0	*2,638*
8:45 AM	---	9:00 AM	0	0	0	836	198	455	0	712	114	131	509	0	*2,955*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	65	19	31	0	61	6	11	47	0	*240*
7:15 AM	---	7:30 AM	0	0	0	46	18	83	0	151	11	11	50	0	*370*
7:30 AM	---	7:45 AM	0	0	0	174	29	85	0	59	16	12	82	0	*457*
7:45 AM	---	8:00 AM	0	0	0	126	31	63	0	104	15	10	71	0	*420*
8:00 AM	---	8:15 AM	0	0	0	121	40	60	0	101	22	4	86	0	*434*
8:15 AM	---	8:30 AM	0	0	0	127	24	42	0	72	15	26	57	0	*363*
8:30 AM	---	8:45 AM	0	0	0	93	22	47	0	81	17	28	66	0	*354*
8:45 AM	---	9:00 AM	0	0	0	84	15	44	0	83	12	29	50	0	*317*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	411	97	262	0	375	48	44	250	0	*1,487*
7:15 AM	---	8:15 AM	0	0	0	467	118	291	0	415	64	37	289	0	*1,681*
7:30 AM	---	8:30 AM	0	0	0	548	124	250	0	336	68	52	296	0	*1,674*
7:45 AM	---	8:45 AM	0	0	0	467	117	212	0	358	69	68	280	0	*1,571*
8:00 AM	---	9:00 AM	0	0	0	425	101	193	0	337	66	87	259	0	*1,468*

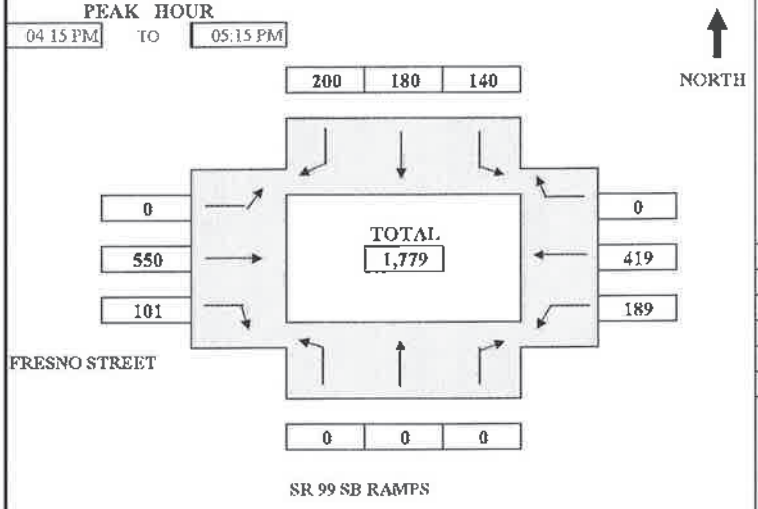
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

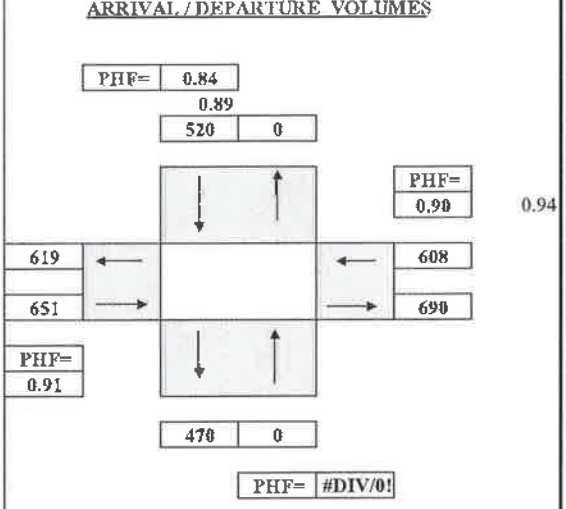
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	SR 99 SB RAMPS	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-40PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	57	55	43	0	114	18	64	105	0	*456*
4:15 PM	---	4:30 PM	0	0	0	98	97	98	0	240	44	111	206	0	*894*
4:30 PM	---	4:45 PM	0	0	0	126	134	144	0	369	65	151	325	0	*1,314*
4:45 PM	---	5:00 PM	0	0	0	164	175	190	0	530	83	190	425	0	*1,757*
5:00 PM	---	5:15 PM	0	0	0	197	235	243	0	664	119	253	524	0	*2,235*
5:15 PM	---	5:30 PM	0	0	0	228	284	313	0	764	148	314	622	0	*2,673*
5:30 PM	---	5:45 PM	0	0	0	253	310	341	0	888	169	343	705	0	*3,009*
5:45 PM	---	6:00 PM	0	0	0	279	334	389	0	978	188	377	779	0	*3,324*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	57	55	43	0	114	18	64	105	0	*456*
4:15 PM	---	4:30 PM	0	0	0	41	42	55	0	126	26	47	101	0	*438*
4:30 PM	---	4:45 PM	0	0	0	28	37	46	0	129	21	40	119	0	*420*
4:45 PM	---	5:00 PM	0	0	0	38	41	46	0	161	18	39	100	0	*443*
5:00 PM	---	5:15 PM	0	0	0	33	60	53	0	134	36	63	99	0	*478*
5:15 PM	---	5:30 PM	0	0	0	31	49	70	0	100	29	61	98	0	*438*
5:30 PM	---	5:45 PM	0	0	0	25	26	28	0	124	21	29	83	0	*336*
5:45 PM	---	6:00 PM	0	0	0	26	24	48	0	90	19	34	74	0	*315*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	164	175	190	0	530	83	190	425	0	*1,757*
4:15 PM	---	5:15 PM	0	0	0	140	180	200	0	550	101	189	419	0	*1,779*
4:30 PM	---	5:30 PM	0	0	0	130	187	215	0	524	104	203	416	0	*1,779*
4:45 PM	---	5:45 PM	0	0	0	127	176	197	0	519	104	192	380	0	*1,695*
5:00 PM	---	6:00 PM	0	0	0	115	159	199	0	448	105	187	354	0	*1,567*

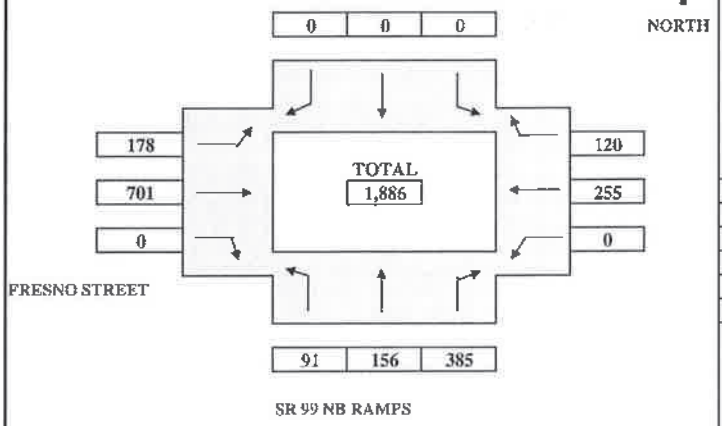
Telephone: (510)232-1271 Fax: (510)232-1272

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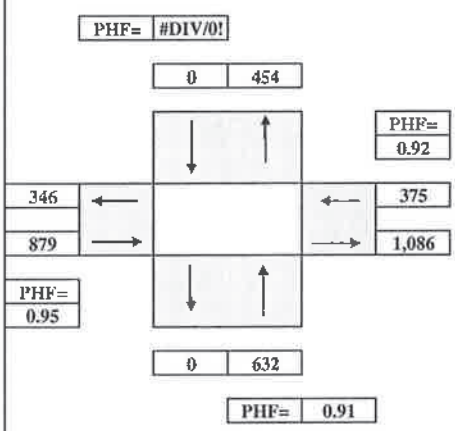
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	SR 99 NB RAMPS	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-39AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	18	17	53	0	0	0	35	88	0	0	38	16	*265*
7:15 AM	---	7:30 AM	34	40	139	0	0	0	78	245	0	0	83	32	*651*
7:30 AM	---	7:45 AM	64	79	234	0	0	0	140	414	0	0	147	58	*1,136*
7:45 AM	---	8:00 AM	84	117	349	0	0	0	185	599	0	0	208	89	*1,631*
8:00 AM	---	8:15 AM	111	158	439	0	0	0	224	780	0	0	271	117	*2,100*
8:15 AM	---	8:30 AM	125	196	524	0	0	0	256	946	0	0	338	152	*2,537*
8:30 AM	---	8:45 AM	152	208	592	0	0	0	284	1,092	0	0	405	176	*2,909*
8:45 AM	---	9:00 AM	167	232	647	0	0	0	325	1,217	0	0	468	214	*3,270*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	18	17	53	0	0	0	35	88	0	0	38	16	*265*
7:15 AM	---	7:30 AM	16	23	86	0	0	0	43	157	0	0	45	16	*386*
7:30 AM	---	7:45 AM	30	39	95	0	0	0	62	169	0	0	64	26	*485*
7:45 AM	---	8:00 AM	20	38	115	0	0	0	45	185	0	0	61	31	*495*
8:00 AM	---	8:15 AM	27	41	90	0	0	0	39	181	0	0	63	28	*469*
8:15 AM	---	8:30 AM	14	38	85	0	0	0	32	166	0	0	67	35	*437*
8:30 AM	---	8:45 AM	27	12	68	0	0	0	28	146	0	0	67	24	*372*
8:45 AM	---	9:00 AM	15	24	55	0	0	0	41	125	0	0	63	38	*361*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	84	117	349	0	0	0	185	599	0	0	208	89	*1,631*
7:15 AM	---	8:15 AM	93	141	386	0	0	0	189	692	0	0	233	101	*1,835*
7:30 AM	---	8:30 AM	91	156	385	0	0	0	178	701	0	0	255	120	*1,886*
7:45 AM	---	8:45 AM	88	129	358	0	0	0	144	678	0	0	258	118	*1,773*
8:00 AM	---	9:00 AM	83	115	298	0	0	0	140	618	0	0	260	125	*1,639*

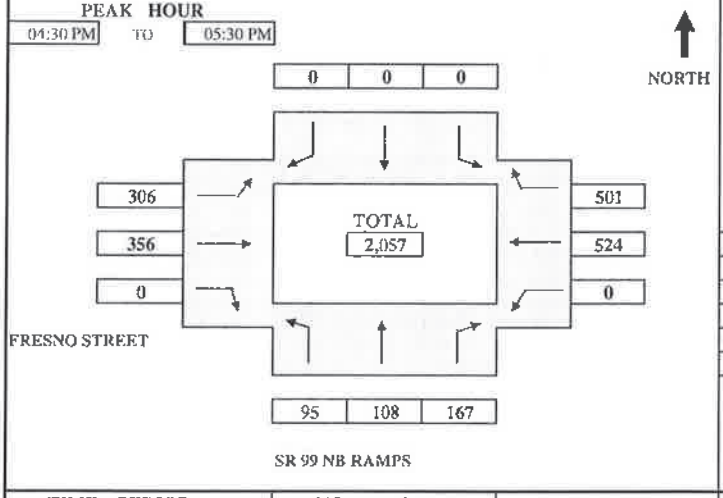
Telephone: (510)232-1271 Fax: (510)232-1272

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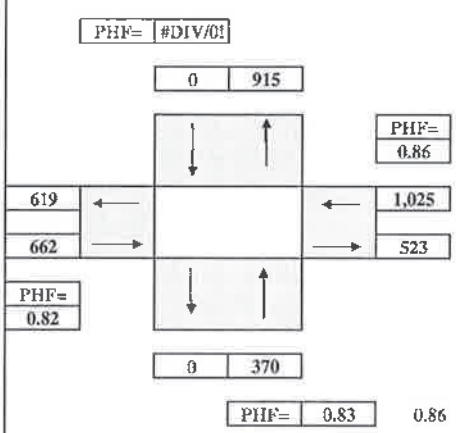
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	SR 99 NB RAMPS	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-39PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	28	27	40	0	0	0	61	111	0	0	141	130	*538*
4:15 PM	---	4:30 PM	60	53	94	0	0	0	125	215	0	0	255	216	*1,018*
4:30 PM	---	4:45 PM	80	78	141	0	0	0	199	300	0	0	394	330	*1,522*
4:45 PM	---	5:00 PM	107	111	172	0	0	0	298	403	0	0	506	445	*2,042*
5:00 PM	---	5:15 PM	127	131	212	0	0	0	377	494	0	0	648	601	*2,590*
5:15 PM	---	5:30 PM	155	161	261	0	0	0	431	571	0	0	779	717	*3,075*
5:30 PM	---	5:45 PM	175	177	298	0	0	0	500	652	0	0	869	798	*3,469*
5:45 PM	---	6:00 PM	190	189	321	0	0	0	546	722	0	0	959	863	*3,790*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	28	27	40	0	0	0	61	111	0	0	141	130	*538*
4:15 PM	---	4:30 PM	32	26	54	0	0	0	64	104	0	0	114	86	*480*
4:30 PM	---	4:45 PM	20	25	47	0	0	0	74	85	0	0	139	114	*504*
4:45 PM	---	5:00 PM	27	33	31	0	0	0	99	103	0	0	112	115	*520*
5:00 PM	---	5:15 PM	20	20	40	0	0	0	79	91	0	0	142	156	*548*
5:15 PM	---	5:30 PM	28	30	49	0	0	0	54	77	0	0	131	116	*485*
5:30 PM	---	5:45 PM	20	16	37	0	0	0	69	81	0	0	90	81	*394*
5:45 PM	---	6:00 PM	15	12	23	0	0	0	46	70	0	0	90	65	*321*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	107	111	172	0	0	0	298	403	0	0	506	445	*2,042*
4:15 PM	---	5:15 PM	99	104	172	0	0	0	316	383	0	0	507	471	*2,052*
4:30 PM	---	5:30 PM	95	108	167	0	0	0	306	356	0	0	524	501	*2,057*
4:45 PM	---	5:45 PM	95	99	157	0	0	0	301	352	0	0	475	468	*1,947*
5:00 PM	---	6:00 PM	83	78	149	0	0	0	248	319	0	0	453	418	*1,748*

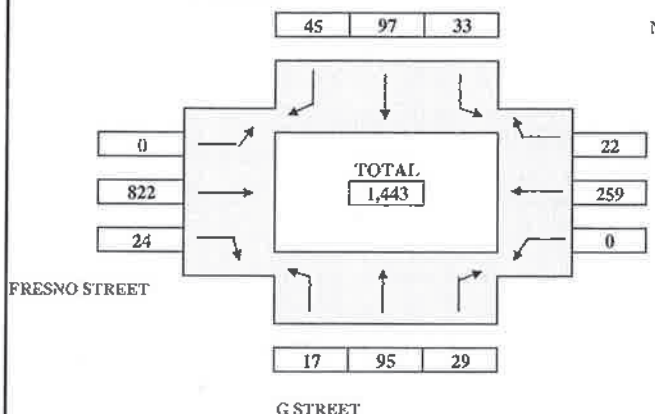
Telephone: (510)232-1271 Fax: (510)232-1272

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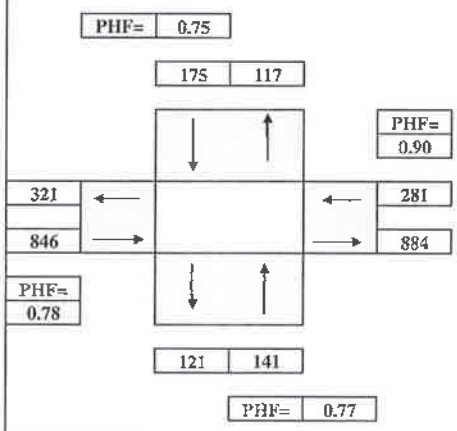
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	G STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-38AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	7	11	2	3	17	9	0	90	4	0	32	2	*177*
7:15 AM	---	7:30 AM	9	28	5	8	39	14	0	260	7	0	68	6	*444*
7:30 AM	---	7:45 AM	13	50	11	17	63	27	0	405	15	0	127	14	*742*
7:45 AM	---	8:00 AM	16	84	20	31	93	41	0	668	22	0	183	22	*1,180*
8:00 AM	---	8:15 AM	23	101	26	42	118	50	0	855	27	0	244	29	*1,515*
8:15 AM	---	8:30 AM	25	123	38	49	132	63	0	1,051	33	0	312	32	*1,858*
8:30 AM	---	8:45 AM	30	145	40	50	160	72	0	1,227	39	0	386	36	*2,185*
8:45 AM	---	9:00 AM	40	168	43	60	177	78	0	1,370	46	0	458	39	*2,479*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	7	11	2	3	17	9	0	90	4	0	32	2	*177*
7:15 AM	---	7:30 AM	2	17	3	5	22	5	0	170	3	0	36	4	*267*
7:30 AM	---	7:45 AM	4	22	6	9	24	13	0	145	8	0	59	8	*298*
7:45 AM	---	8:00 AM	3	34	9	14	30	14	0	263	7	0	56	8	*438*
8:00 AM	---	8:15 AM	7	17	6	11	25	9	0	187	5	0	61	7	*335*
8:15 AM	---	8:30 AM	2	22	12	7	14	13	0	196	6	0	68	3	*343*
8:30 AM	---	8:45 AM	5	22	2	1	28	9	0	176	6	0	74	4	*327*
8:45 AM	---	9:00 AM	10	23	3	10	17	6	0	143	7	0	72	3	*294*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	16	84	20	31	93	41	0	668	22	0	183	22	*1,180*
7:15 AM	---	8:15 AM	16	90	24	39	101	41	0	765	23	0	212	27	*1,338*
7:30 AM	---	8:30 AM	16	95	33	41	93	49	0	791	26	0	244	26	*1,414*
7:45 AM	---	8:45 AM	17	95	29	33	97	45	0	822	24	0	259	22	*1,443*
8:00 AM	---	9:00 AM	24	84	23	29	84	37	0	702	24	0	275	17	*1,299*

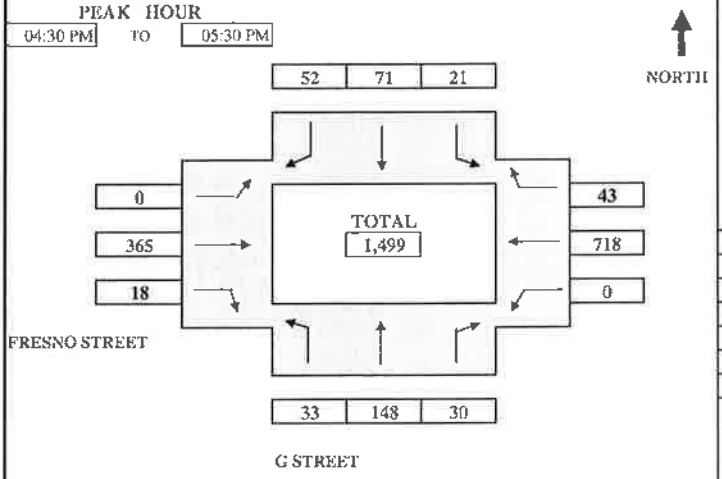
Telephone: (510)232-1271 Fax: (510)232-1272

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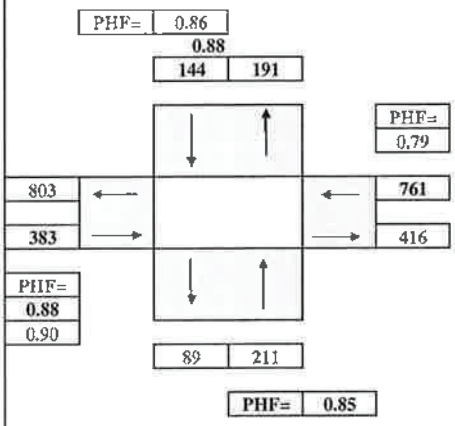
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	G STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-38PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	20	26	7	4	14	24	0	105	4	0	177	11	*392*
4:15 PM	---	4:30 PM	34	59	15	13	35	35	0	208	8	0	299	18	*724*
4:30 PM	---	4:45 PM	44	94	22	20	56	48	0	308	14	0	490	23	*1,119*
4:45 PM	---	5:00 PM	51	126	28	27	71	59	0	394	18	0	635	32	*1,441*
5:00 PM	---	5:15 PM	57	175	35	30	93	72	0	491	24	0	852	57	*1,886*
5:15 PM	---	5:30 PM	67	207	45	34	106	87	0	573	26	0	1,017	61	*2,223*
5:30 PM	---	5:45 PM	80	230	51	38	118	97	0	642	31	0	1,143	73	*2,503*
5:45 PM	---	6:00 PM	84	246	59	46	131	106	0	716	33	0	1,246	75	*2,742*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	20	26	7	4	14	24	0	105	4	0	177	11	*392*
4:15 PM	---	4:30 PM	14	33	8	9	21	11	0	103	4	0	122	7	*332*
4:30 PM	---	4:45 PM	10	35	7	7	21	13	0	100	6	0	191	5	*395*
4:45 PM	---	5:00 PM	7	32	6	7	15	11	0	86	4	0	145	9	*322*
5:00 PM	---	5:15 PM	6	49	7	3	22	13	0	97	6	0	217	25	*445*
5:15 PM	---	5:30 PM	10	32	10	4	13	15	0	82	2	0	165	4	*337*
5:30 PM	---	5:45 PM	13	23	6	4	12	10	0	69	5	0	126	12	*280*
5:45 PM	---	6:00 PM	4	16	8	8	13	9	0	74	2	0	103	2	*239*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	51	126	28	27	71	59	0	394	18	0	635	32	*1,441*
4:15 PM	---	5:15 PM	37	149	28	26	79	48	0	386	20	0	675	46	*1,494*
4:30 PM	---	5:30 PM	33	148	30	21	71	52	0	365	18	0	718	43	*1,499*
4:45 PM	---	5:45 PM	36	136	29	18	62	49	0	334	17	0	653	50	*1,384*
5:00 PM	---	6:00 PM	33	120	31	19	60	47	0	322	15	0	611	43	*1,301*

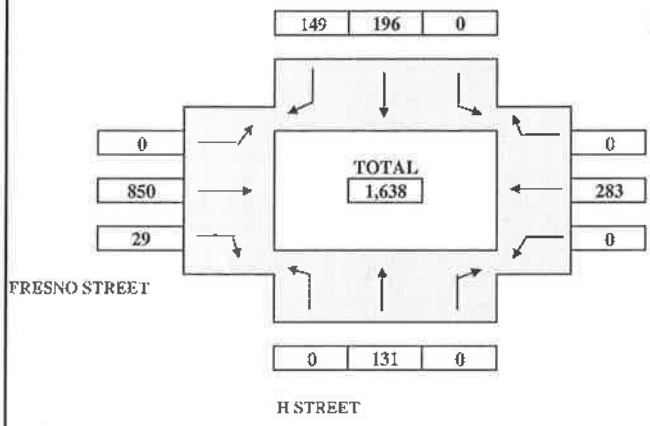
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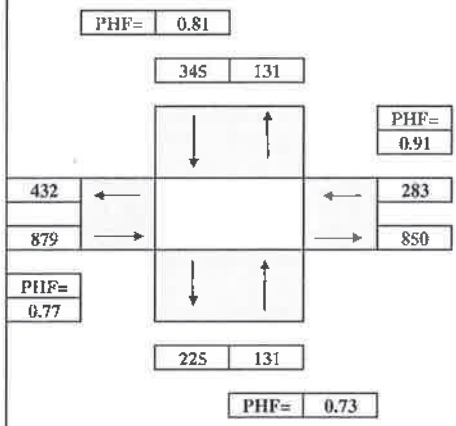
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	H STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-36AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	12	0	0	32	20	0	94	4	0	35	0	*197*
7:15 AM	---	7:30 AM	0	39	0	0	68	56	0	263	9	0	76	0	*511*
7:30 AM	---	7:45 AM	0	65	0	0	106	92	0	408	24	0	143	0	*838*
7:45 AM	---	8:00 AM	0	110	0	0	159	145	0	689	27	0	208	0	*1,338*
8:00 AM	---	8:15 AM	0	151	0	0	216	175	0	884	36	0	276	0	*1,738*
8:15 AM	---	8:30 AM	0	166	0	0	260	214	0	1,087	48	0	348	0	*2,123*
8:30 AM	---	8:45 AM	0	196	0	0	302	241	0	1,258	53	0	426	0	*2,476*
8:45 AM	---	9:00 AM	0	209	0	0	320	264	0	1,407	60	0	503	0	*2,763*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	12	0	0	32	20	0	94	4	0	35	0	*197*
7:15 AM	---	7:30 AM	0	27	0	0	36	36	0	169	5	0	41	0	*314*
7:30 AM	---	7:45 AM	0	26	0	0	38	36	0	145	15	0	67	0	*327*
7:45 AM	---	8:00 AM	0	45	0	0	53	53	0	281	3	0	65	0	*500*
8:00 AM	---	8:15 AM	0	41	0	0	57	30	0	195	9	0	68	0	*400*
8:15 AM	---	8:30 AM	0	15	0	0	44	39	0	203	12	0	72	0	*385*
8:30 AM	---	8:45 AM	0	30	0	0	42	27	0	171	5	0	78	0	*353*
8:45 AM	---	9:00 AM	0	13	0	0	18	23	0	149	7	0	77	0	*287*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	110	0	0	159	145	0	689	27	0	208	0	*1,338*
7:15 AM	---	8:15 AM	0	139	0	0	184	155	0	790	32	0	241	0	*1,541*
7:30 AM	---	8:30 AM	0	127	0	0	192	158	0	824	39	0	272	0	*1,612*
7:45 AM	---	8:45 AM	0	131	0	0	196	149	0	850	29	0	283	0	*1,638*
8:00 AM	---	9:00 AM	0	99	0	0	161	119	0	718	33	0	295	0	*1,425*

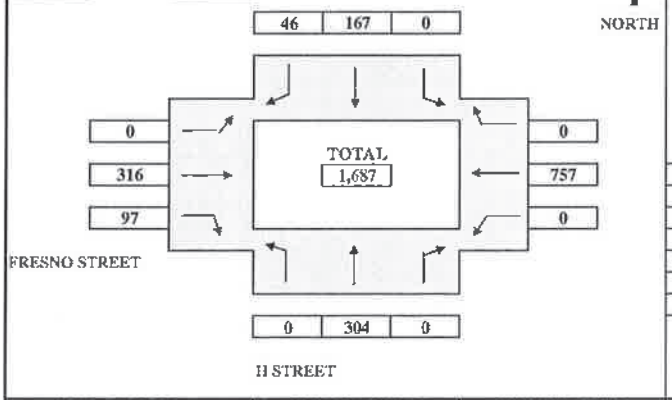
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

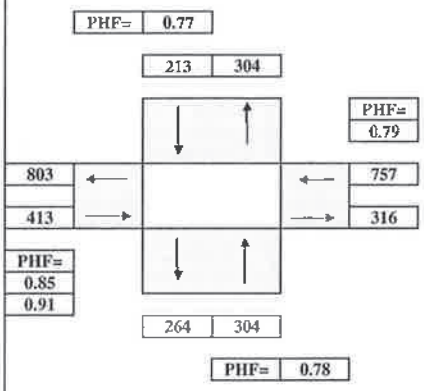
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	H STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-36PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



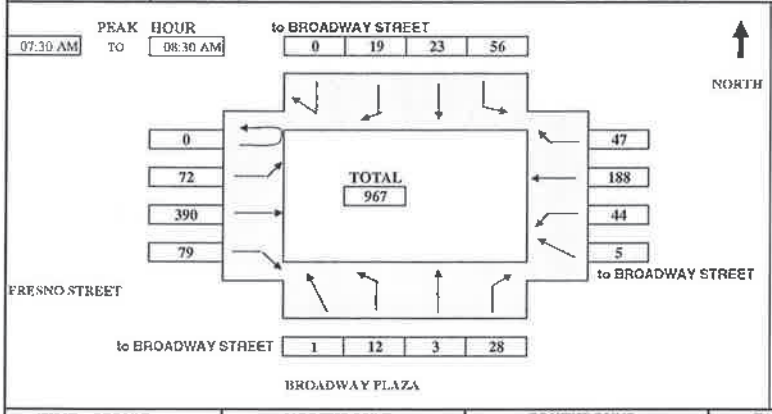
TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	41	0	0	33	22	0	93	24	0	186	0	*399*
4:15 PM	---	4:30 PM	0	111	0	0	52	45	0	198	40	0	315	0	*761*
4:30 PM	---	4:45 PM	0	196	0	0	96	65	0	284	67	0	509	0	*1,217*
4:45 PM	---	5:00 PM	0	255	0	0	124	74	0	367	82	0	663	0	*1,565*
5:00 PM	---	5:15 PM	0	353	0	0	182	85	0	436	118	0	904	0	*2,078*
5:15 PM	---	5:30 PM	0	415	0	0	219	91	0	514	137	0	1,072	0	*2,448*
5:30 PM	---	5:45 PM	0	471	0	0	244	97	0	581	150	0	1,210	0	*2,753*
5:45 PM	---	6:00 PM	0	502	0	0	259	114	0	662	161	0	1,316	0	*3,014*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	41	0	0	33	22	0	93	24	0	186	0	*399*
4:15 PM	---	4:30 PM	0	70	0	0	19	23	0	105	16	0	129	0	*362*
4:30 PM	---	4:45 PM	0	85	0	0	44	20	0	86	27	0	194	0	*456*
4:45 PM	---	5:00 PM	0	59	0	0	28	9	0	83	15	0	154	0	*348*
5:00 PM	---	5:15 PM	0	98	0	0	58	11	0	69	36	0	241	0	*513*
5:15 PM	---	5:30 PM	0	62	0	0	37	6	0	78	19	0	168	0	*370*
5:30 PM	---	5:45 PM	0	56	0	0	25	6	0	67	13	0	138	0	*305*
5:45 PM	---	6:00 PM	0	31	0	0	15	17	0	81	11	0	106	0	*261*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	255	0	0	124	74	0	367	82	0	663	0	*1,565*
4:15 PM	---	5:15 PM	0	312	0	0	149	63	0	343	94	0	718	0	*1,679*
4:30 PM	---	5:30 PM	0	304	0	0	167	46	0	316	97	0	757	0	*1,687*
4:45 PM	---	5:45 PM	0	275	0	0	148	32	0	297	83	0	701	0	*1,536*
5:00 PM	---	6:00 PM	0	247	0	0	135	40	0	295	79	0	653	0	*1,449*

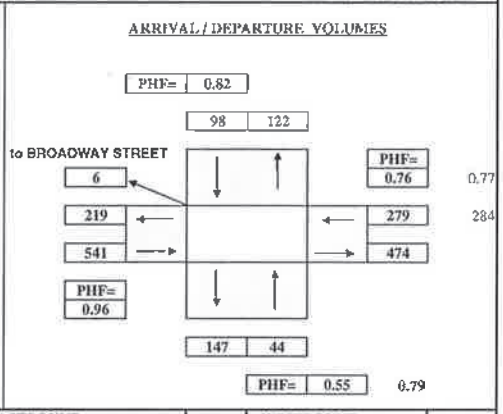
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/18/2009	DAY:	WEDNESDAY
N-S APPROACH:	BROADWAY PLAZA	SURVEY TIME:	7:00 AM TO 9:00 AM		
E-W APPROACH:	FRESNO STREET	CITY: FRESNO		FILE:	2911072-35PM





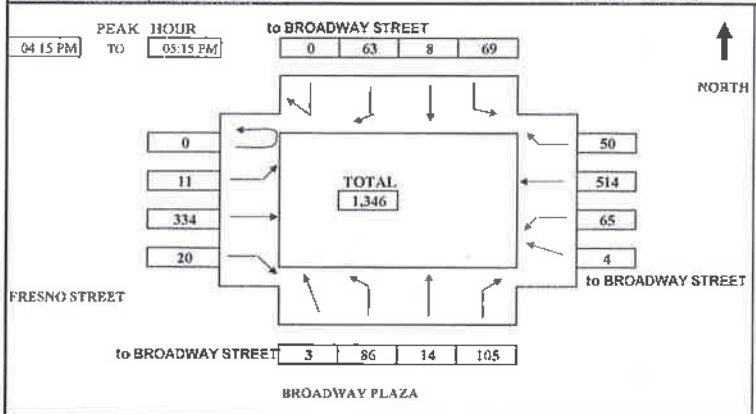
TIME PERIOD			NORTHBOUND				SOUTHBOUND				EASTBOUND					WESTBOUND			
From		To	BRDWY	Left	Thru	Right	BRDWY	Left	Thru	Right	U-Turn	Left	Thru	Right	BRDWY	Left	Thru	Right	TOTAL
SURVEY DATA																			
7:00 AM	---	7:15 AM	0	2	0	4	0	8	3	3	0	5	67	26	2	9	36	4	*169*
7:15 AM	---	7:30 AM	0	3	0	11	0	19	8	5	0	15	133	29	3	18	66	13	*323*
7:30 AM	---	7:45 AM	0	6	1	15	0	35	12	10	0	40	231	45	3	31	112	20	*561*
7:45 AM	---	8:00 AM	1	9	1	20	0	48	15	16	0	66	324	63	5	39	148	35	*790*
8:00 AM	---	8:15 AM	1	10	2	31	0	64	23	22	0	82	437	75	8	55	207	49	*1,066*
8:15 AM	---	8:30 AM	1	15	3	39	0	75	31	24	0	87	523	108	8	62	254	60	*1,290*
8:30 AM	---	8:45 AM	4	22	4	48	0	88	34	28	0	92	634	130	9	69	299	63	*1,524*
8:45 AM	---	9:00 AM	4	27	4	56	0	101	36	31	0	96	731	152	9	75	348	71	*1,741*
TOTAL BY PERIOD																			
7:00 AM	---	7:15 AM	0	2	0	4	0	8	3	3	0	5	67	26	2	9	36	4	*169*
7:15 AM	---	7:30 AM	0	1	0	7	0	11	5	2	0	10	66	3	1	9	30	9	*154*
7:30 AM	---	7:45 AM	0	3	1	4	0	16	4	5	0	25	98	16	0	13	46	7	*238*
7:45 AM	---	8:00 AM	1	3	0	5	0	13	3	6	0	26	93	18	2	8	36	15	*229*
8:00 AM	---	8:15 AM	0	1	1	11	0	16	8	6	0	16	113	12	3	16	59	14	*276*
8:15 AM	---	8:30 AM	0	5	1	8	0	11	8	2	0	5	86	33	0	7	47	11	*224*
8:30 AM	---	8:45 AM	3	7	1	9	0	13	3	4	0	5	111	22	1	7	45	3	*234*
8:45 AM	---	9:00 AM	0	5	0	8	0	13	2	3	0	4	97	22	0	6	49	8	*217*
HOURLY TOTALS																			
7:00 AM	---	8:00 AM	1	9	1	20	0	48	15	16	0	66	324	63	5	39	148	35	*790*
7:15 AM	---	8:15 AM	1	8	2	27	0	56	20	19	0	77	370	49	6	46	171	45	*897*
7:30 AM	---	8:30 AM	1	12	3	28	0	56	23	19	0	72	390	79	5	44	188	47	*967*
7:45 AM	---	8:45 AM	4	16	3	33	0	53	22	18	0	52	403	85	6	38	187	43	*963*
8:00 AM	---	9:00 AM	3	18	3	36	0	53	21	15	0	30	407	89	4	36	200	36	*951*

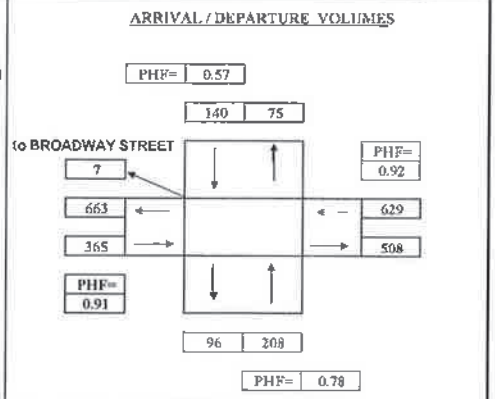
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/18/2009	DAY:	WEDNESDAY
N-S APPROACH:	BROADWAY PLAZA	SURVEY TIME:	4:00 PM TO 6:00 PM		
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-35PM





TIME PERIOD			NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
From		To	BRDWY	Left	Thru	Right	BRDWY	Left	Thru	Right	U-Turn	Left	Thru	Right	BRDWY	Left	Thru	Right	TOTAL
SURVEY DATA																			
4:00 PM	---	4:15 PM	1	29	4	33	0	22	3	12	0	3	106	8	0	10	121	20	*372*
4:15 PM	---	4:30 PM	1	44	5	60	0	33	4	26	0	6	187	13	0	31	260	32	*702*
4:30 PM	---	4:45 PM	2	78	8	88	0	51	7	37	0	10	273	23	2	46	393	42	*1,060*
4:45 PM	---	5:00 PM	4	86	10	108	0	60	7	49	0	11	359	27	3	65	497	55	*1,341*
5:00 PM	---	5:15 PM	4	115	18	138	0	91	11	75	0	14	440	28	4	75	635	70	*1,718*
5:15 PM	---	5:30 PM	4	131	22	156	0	98	12	84	0	15	517	30	8	86	748	79	*1,990*
5:30 PM	---	5:45 PM	4	150	23	173	0	106	13	90	0	18	574	31	10	92	848	82	*2,214*
5:45 PM	---	6:00 PM	5	161	24	188	0	112	13	95	0	19	629	32	10	99	940	87	*2,414*
TOTAL BY PERIOD																			
4:00 PM	---	4:15 PM	1	29	4	33	0	22	3	12	0	3	106	8	0	10	121	20	*372*
4:15 PM	---	4:30 PM	0	15	1	27	0	11	1	14	0	3	81	5	0	21	139	12	*330*
4:30 PM	---	4:45 PM	1	34	3	28	0	18	3	11	0	4	86	10	2	15	133	10	*358*
4:45 PM	---	5:00 PM	2	8	2	20	0	9	0	12	0	1	86	4	1	19	104	13	*281*
5:00 PM	---	5:15 PM	0	29	8	30	0	31	4	26	0	3	81	1	1	10	138	15	*377*
5:15 PM	---	5:30 PM	0	16	4	18	0	7	1	9	0	1	77	2	4	11	113	9	*272*
5:30 PM	---	5:45 PM	0	19	1	17	0	8	1	6	0	3	57	1	2	6	100	3	*224*
5:45 PM	---	6:00 PM	1	11	1	15	0	6	0	5	0	1	55	1	0	7	92	5	*200*
HOURLY TOTALS																			
4:00 PM	---	5:00 PM	4	86	10	108	0	60	7	49	0	11	359	27	3	65	497	55	*1,341*
4:15 PM	---	5:15 PM	3	86	14	105	0	69	8	63	0	11	334	20	4	65	514	50	*1,346*
4:30 PM	---	5:30 PM	3	87	17	96	0	65	8	58	0	9	330	17	8	55	488	47	*1,288*
4:45 PM	---	5:45 PM	2	72	15	85	0	55	6	53	0	8	301	8	8	46	455	40	*1,154*
5:00 PM	---	6:00 PM	1	75	14	80	0	52	6	46	0	8	270	5	7	34	443	32	*1,073*

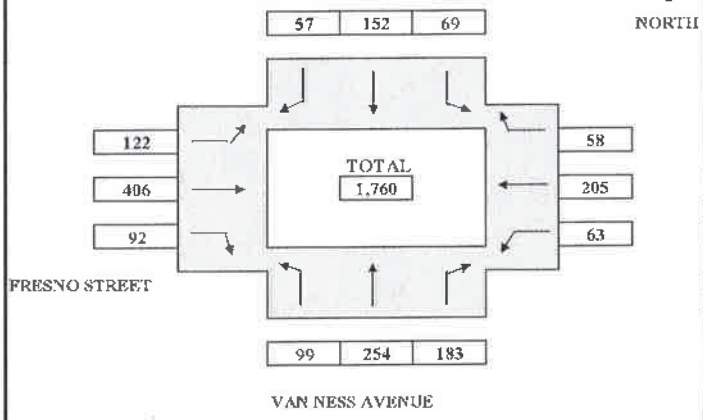
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

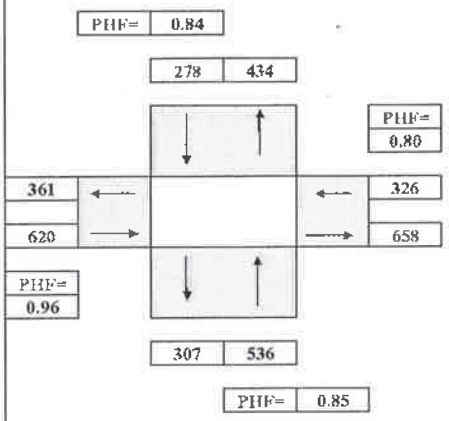
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-15AM

PEAK HOUR
08:00 AM TO 09:00 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	16	29	12	5	13	3	6	46	10	6	27	5	*178*
7:15 AM	---	7:30 AM	29	68	26	14	38	17	17	107	20	14	48	15	*413*
7:30 AM	---	7:45 AM	53	123	58	23	63	27	35	180	45	22	105	24	*758*
7:45 AM	---	8:00 AM	68	185	80	35	105	36	65	281	68	33	171	34	*1,161*
8:00 AM	---	8:15 AM	93	239	117	58	149	52	95	385	95	46	221	39	*1,589*
8:15 AM	---	8:30 AM	121	311	172	70	184	69	118	488	118	69	267	55	*2,042*
8:30 AM	---	8:45 AM	155	387	219	88	222	78	139	601	143	74	314	74	*2,494*
8:45 AM	---	9:00 AM	167	439	263	104	257	93	187	687	160	96	376	92	*2,921*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	16	29	12	5	13	3	6	46	10	6	27	5	*178*
7:15 AM	---	7:30 AM	13	39	14	9	25	14	11	61	10	8	21	10	*235*
7:30 AM	---	7:45 AM	24	55	32	9	25	10	18	73	25	8	57	9	*345*
7:45 AM	---	8:00 AM	15	62	22	12	42	9	30	101	23	11	66	10	*403*
8:00 AM	---	8:15 AM	25	54	37	23	44	16	30	104	27	13	50	5	*428*
8:15 AM	---	8:30 AM	28	72	55	12	35	17	23	103	23	23	46	16	*453*
8:30 AM	---	8:45 AM	34	76	47	18	38	9	21	113	25	5	47	19	*452*
8:45 AM	---	9:00 AM	12	52	44	16	35	15	48	86	17	22	62	18	*427*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	68	185	80	35	105	36	65	281	68	33	171	34	*1,161*
7:15 AM	---	8:15 AM	77	210	105	53	136	49	89	339	85	40	194	34	*1,411*
7:30 AM	---	8:30 AM	92	243	146	56	146	52	101	381	98	55	219	40	*1,629*
7:45 AM	---	8:45 AM	102	264	161	65	159	51	104	421	98	52	209	50	*1,736*
8:00 AM	---	9:00 AM	99	254	183	69	152	57	122	406	92	63	205	58	*1,760*

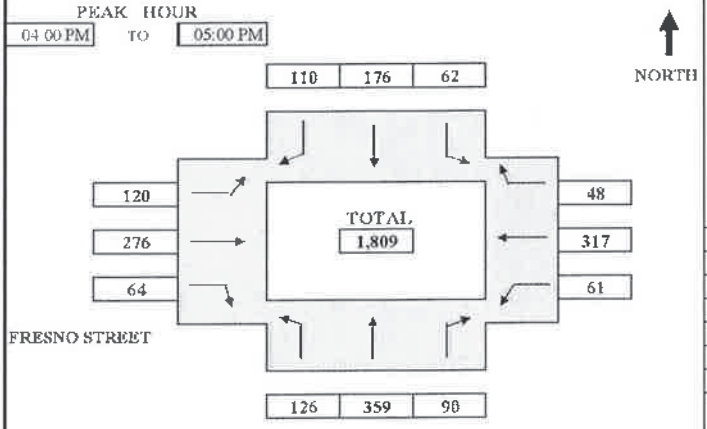
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

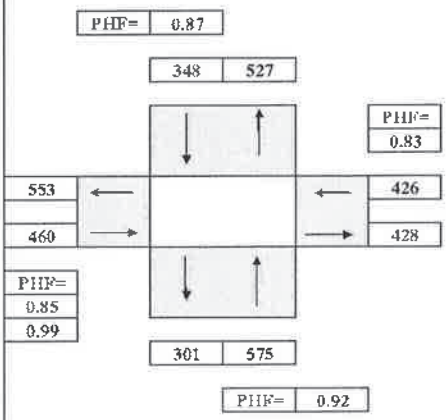
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	IIST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-15PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	39	96	19	19	35	29	30	76	10	18	76	9	*456*
4:15 PM	---	4:30 PM	60	183	40	38	84	61	63	137	32	31	135	20	*884*
4:30 PM	---	4:45 PM	93	287	60	52	130	90	89	206	51	47	230	37	*1,372*
4:45 PM	---	5:00 PM	126	359	90	62	176	110	120	276	64	61	317	48	*1,809*
5:00 PM	---	5:15 PM	156	454	99	75	214	125	146	371	79	75	402	56	*2,252*
5:15 PM	---	5:30 PM	179	535	107	84	241	134	171	432	90	87	467	62	*2,589*
5:30 PM	---	5:45 PM	203	587	118	92	261	150	188	485	98	97	524	70	*2,873*
5:45 PM	---	6:00 PM	216	625	121	101	275	157	201	532	105	109	578	79	*3,099*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	39	96	19	19	35	29	30	76	10	18	76	9	*456*
4:15 PM	---	4:30 PM	21	87	21	19	49	32	33	61	22	13	59	11	*428*
4:30 PM	---	4:45 PM	33	104	20	14	46	29	26	69	19	16	95	17	*488*
4:45 PM	---	5:00 PM	33	72	30	10	46	20	31	70	13	14	87	11	*437*
5:00 PM	---	5:15 PM	30	95	9	13	38	15	26	95	15	14	85	8	*443*
5:15 PM	---	5:30 PM	23	81	8	9	27	9	25	61	11	12	65	6	*337*
5:30 PM	---	5:45 PM	24	52	11	8	20	16	17	53	8	10	57	8	*284*
5:45 PM	---	6:00 PM	13	38	3	9	14	7	13	47	7	12	54	9	*226*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	126	359	90	62	176	110	120	276	64	61	317	48	*1,809*
4:15 PM	---	5:15 PM	117	358	80	56	179	96	116	295	69	57	326	47	*1,796*
4:30 PM	---	5:30 PM	119	352	67	46	157	73	108	295	58	56	332	42	*1,705*
4:45 PM	---	5:45 PM	110	300	58	40	131	60	99	279	47	50	294	33	*1,501*
5:00 PM	---	6:00 PM	90	266	31	39	99	47	81	256	41	48	261	31	*1,290*

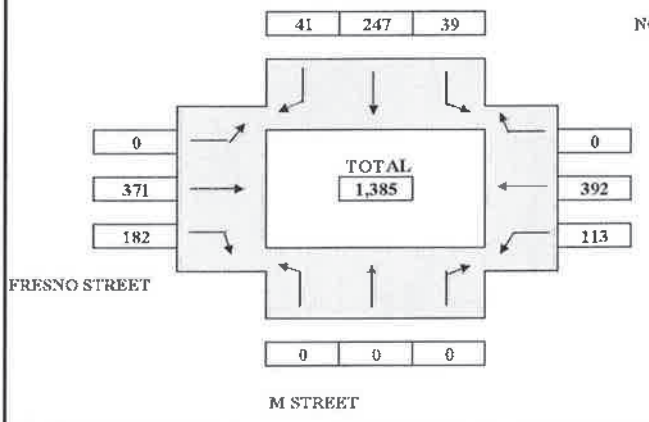
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

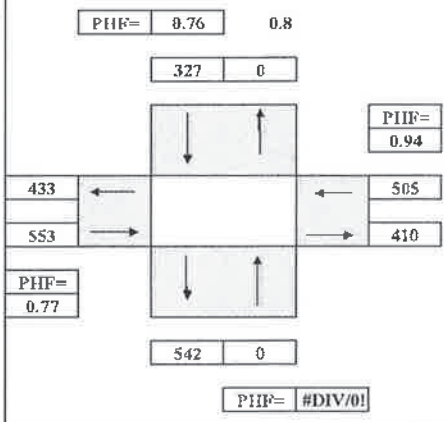
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	M STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-64AM

PEAK HOUR
08:00 AM TO 09:00 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	9	41	5	0	40	18	13	51	0	*177*
7:15 AM	---	7:30 AM	0	0	0	17	97	7	0	87	50	29	120	0	*407*
7:30 AM	---	7:45 AM	0	0	0	25	165	18	0	140	87	46	186	0	*667*
7:45 AM	---	8:00 AM	0	0	0	37	253	26	0	196	126	71	265	0	*974*
8:00 AM	---	8:15 AM	0	0	0	50	337	31	0	271	177	111	360	0	*1,337*
8:15 AM	---	8:30 AM	0	0	0	56	411	41	0	339	228	140	459	0	*1,674*
8:30 AM	---	8:45 AM	0	0	0	64	454	58	0	466	280	169	553	0	*2,044*
8:45 AM	---	9:00 AM	0	0	0	76	500	67	0	567	308	184	657	0	*2,359*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	9	41	5	0	40	18	13	51	0	*177*
7:15 AM	---	7:30 AM	0	0	0	8	56	2	0	47	32	16	69	0	*230*
7:30 AM	---	7:45 AM	0	0	0	8	68	11	0	53	37	17	66	0	*260*
7:45 AM	---	8:00 AM	0	0	0	12	88	8	0	56	39	25	79	0	*307*
8:00 AM	---	8:15 AM	0	0	0	13	84	5	0	75	51	40	95	0	*363*
8:15 AM	---	8:30 AM	0	0	0	6	74	10	0	68	51	29	99	0	*337*
8:30 AM	---	8:45 AM	0	0	0	8	43	17	0	127	52	29	94	0	*370*
8:45 AM	---	9:00 AM	0	0	0	12	46	9	0	101	28	15	104	0	*315*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	37	253	26	0	196	126	71	265	0	*974*
7:15 AM	---	8:15 AM	0	0	0	41	296	26	0	231	159	98	309	0	*1,160*
7:30 AM	---	8:30 AM	0	0	0	39	314	34	0	252	178	111	339	0	*1,267*
7:45 AM	---	8:45 AM	0	0	0	39	289	40	0	326	193	123	367	0	*1,377*
8:00 AM	---	9:00 AM	0	0	0	39	247	41	0	371	182	113	392	0	*1,385*

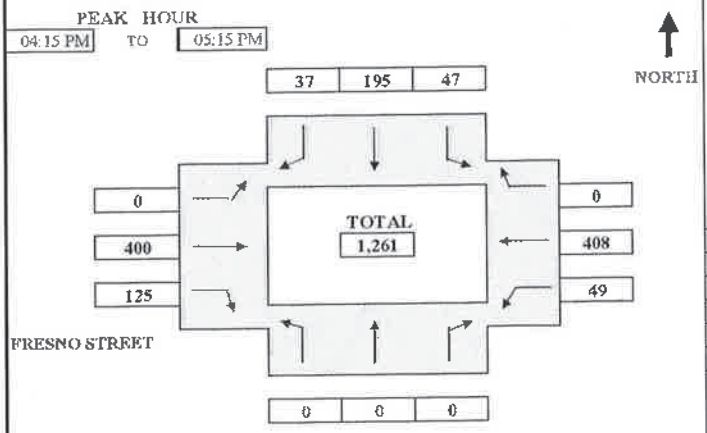
Telephone: (510)232-1271 Fax: (510)232-1272

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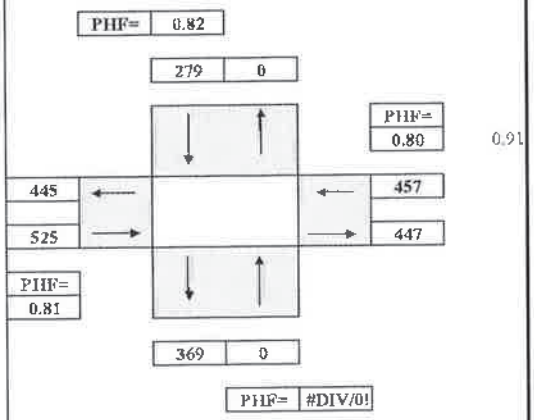
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	M STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-64PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	16	39	10	0	100	40	22	120	0	*347*
4:15 PM	---	4:30 PM	0	0	0	25	80	22	0	176	62	43	224	0	*632*
4:30 PM	---	4:45 PM	0	0	0	31	135	30	0	299	93	50	332	0	*970*
4:45 PM	---	5:00 PM	0	0	0	46	178	35	0	381	122	62	422	0	*1,246*
5:00 PM	---	5:15 PM	0	0	0	63	234	47	0	500	165	71	528	0	*1,608*
5:15 PM	---	5:30 PM	0	0	0	68	267	55	0	585	188	76	591	0	*1,830*
5:30 PM	---	5:45 PM	0	0	0	74	294	69	0	657	202	80	639	0	*2,015*
5:45 PM	---	6:00 PM	0	0	0	78	312	71	0	718	215	84	695	0	*2,173*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	16	39	10	0	100	40	22	120	0	*347*
4:15 PM	---	4:30 PM	0	0	0	9	41	12	0	76	22	21	104	0	*285*
4:30 PM	---	4:45 PM	0	0	0	6	55	8	0	123	31	7	108	0	*338*
4:45 PM	---	5:00 PM	0	0	0	15	43	5	0	82	29	12	90	0	*276*
5:00 PM	---	5:15 PM	0	0	0	17	56	12	0	119	43	9	106	0	*362*
5:15 PM	---	5:30 PM	0	0	0	5	33	8	0	85	23	5	63	0	*222*
5:30 PM	---	5:45 PM	0	0	0	6	27	14	0	72	14	4	48	0	*185*
5:45 PM	---	6:00 PM	0	0	0	4	18	2	0	61	13	4	56	0	*158*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	46	178	35	0	381	122	62	422	0	*1,246*
4:15 PM	---	5:15 PM	0	0	0	47	195	37	0	400	125	49	408	0	*1,261*
4:30 PM	---	5:30 PM	0	0	0	43	187	33	0	409	126	33	367	0	*1,198*
4:45 PM	---	5:45 PM	0	0	0	43	159	39	0	358	109	30	307	0	*1,045*
5:00 PM	---	6:00 PM	0	0	0	32	134	36	0	337	93	22	273	0	*927*

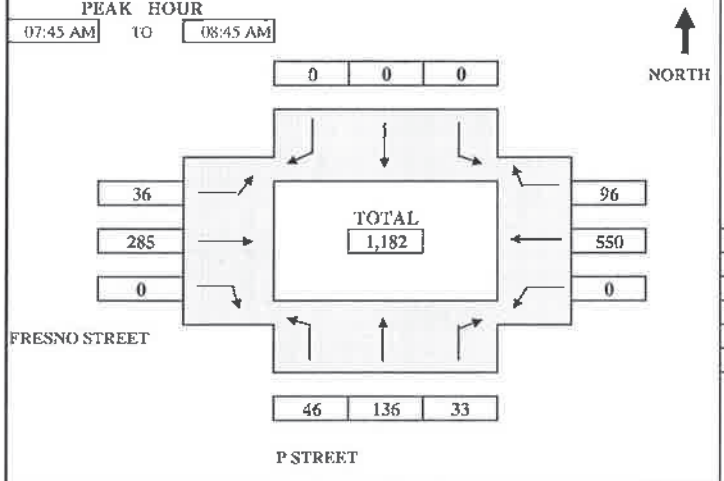
Telephone: (510)232-1271 Fax: (510)232-1272

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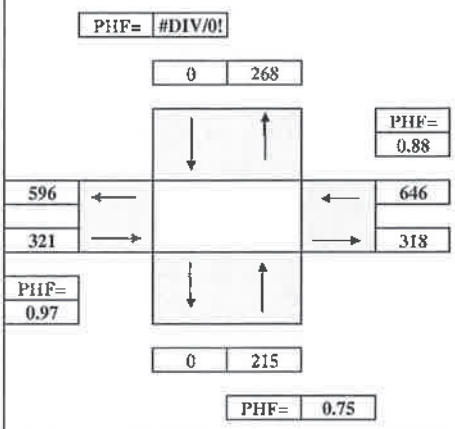
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	P STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-34AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	7	16	6	0	0	0	3	11	0	0	55	8	*106*
7:15 AM	---	7:30 AM	19	40	12	0	0	0	7	41	0	0	149	28	*296*
7:30 AM	---	7:45 AM	41	80	15	0	0	0	11	86	0	0	249	46	*528*
7:45 AM	---	8:00 AM	52	127	21	0	0	0	17	159	0	0	395	83	*854*
8:00 AM	---	8:15 AM	62	177	33	0	0	0	27	226	0	0	535	109	*1,169*
8:15 AM	---	8:30 AM	75	201	40	0	0	0	38	297	0	0	675	126	*1,452*
8:30 AM	---	8:45 AM	87	216	48	0	0	0	47	371	0	0	799	142	*1,710*
8:45 AM	---	9:00 AM	95	241	52	0	0	0	54	442	0	0	908	156	*1,948*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	7	16	6	0	0	0	3	11	0	0	55	8	*106*
7:15 AM	---	7:30 AM	12	24	6	0	0	0	4	30	0	0	94	20	*190*
7:30 AM	---	7:45 AM	22	40	3	0	0	0	4	45	0	0	100	18	*232*
7:45 AM	---	8:00 AM	11	47	6	0	0	0	6	73	0	0	146	37	*326*
8:00 AM	---	8:15 AM	10	50	12	0	0	0	10	67	0	0	140	26	*315*
8:15 AM	---	8:30 AM	13	24	7	0	0	0	11	71	0	0	140	17	*283*
8:30 AM	---	8:45 AM	12	15	8	0	0	0	9	74	0	0	124	16	*258*
8:45 AM	---	9:00 AM	8	25	4	0	0	0	7	71	0	0	109	14	*238*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	52	127	21	0	0	0	17	159	0	0	395	83	*854*
7:15 AM	---	8:15 AM	55	161	27	0	0	0	24	215	0	0	480	101	*1,063*
7:30 AM	---	8:30 AM	56	161	28	0	0	0	31	256	0	0	526	98	*1,156*
7:45 AM	---	8:45 AM	46	136	33	0	0	0	36	285	0	0	550	96	*1,182*
8:00 AM	---	9:00 AM	43	114	31	0	0	0	37	283	0	0	513	73	*1,094*

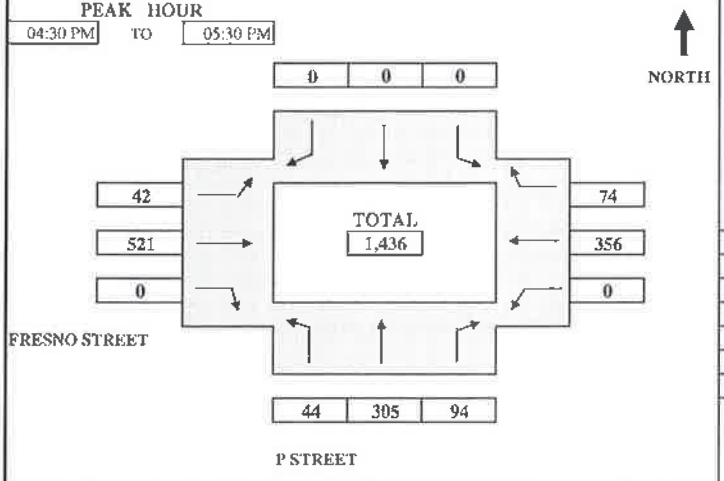
Telephone: (510)232-1271 Fax: (510)232-1272

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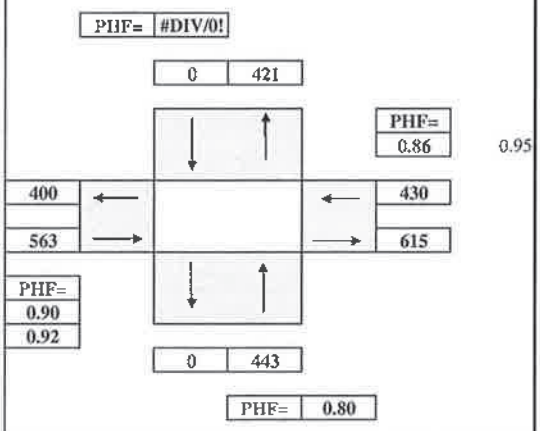
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	P STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	FRESNO STREET	CITY: FRESNO		FILE:	2911072-34PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	9	57	13	0	0	0	4	152	0	0	113	12	*360*
4:15 PM	---	4:30 PM	23	96	32	0	0	0	8	258	0	0	218	20	*655*
4:30 PM	---	4:45 PM	30	161	53	0	0	0	17	402	0	0	320	31	*1,014*
4:45 PM	---	5:00 PM	39	270	74	0	0	0	27	514	0	0	412	49	*1,385*
5:00 PM	---	5:15 PM	54	326	108	0	0	0	39	645	0	0	489	67	*1,728*
5:15 PM	---	5:30 PM	67	401	126	0	0	0	50	779	0	0	574	94	*2,091*
5:30 PM	---	5:45 PM	76	451	136	0	0	0	52	853	0	0	650	107	*2,325*
5:45 PM	---	6:00 PM	86	486	147	0	0	0	57	915	0	0	719	117	*2,527*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	9	57	13	0	0	0	4	152	0	0	113	12	*360*
4:15 PM	---	4:30 PM	14	39	19	0	0	0	4	106	0	0	105	8	*295*
4:30 PM	---	4:45 PM	7	65	21	0	0	0	9	144	0	0	102	11	*359*
4:45 PM	---	5:00 PM	9	109	21	0	0	0	10	112	0	0	92	18	*371*
5:00 PM	---	5:15 PM	15	56	34	0	0	0	12	131	0	0	77	18	*343*
5:15 PM	---	5:30 PM	13	75	18	0	0	0	11	134	0	0	85	27	*363*
5:30 PM	---	5:45 PM	9	50	10	0	0	0	2	74	0	0	76	13	*234*
5:45 PM	---	6:00 PM	10	35	11	0	0	0	5	62	0	0	69	10	*202*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	39	270	74	0	0	0	27	514	0	0	412	49	*1,385*
4:15 PM	---	5:15 PM	45	269	95	0	0	0	35	493	0	0	376	55	*1,368*
4:30 PM	---	5:30 PM	44	305	94	0	0	0	42	521	0	0	356	74	*1,436*
4:45 PM	---	5:45 PM	46	290	83	0	0	0	35	451	0	0	330	76	*1,311*
5:00 PM	---	6:00 PM	47	216	73	0	0	0	30	401	0	0	307	68	*1,142*

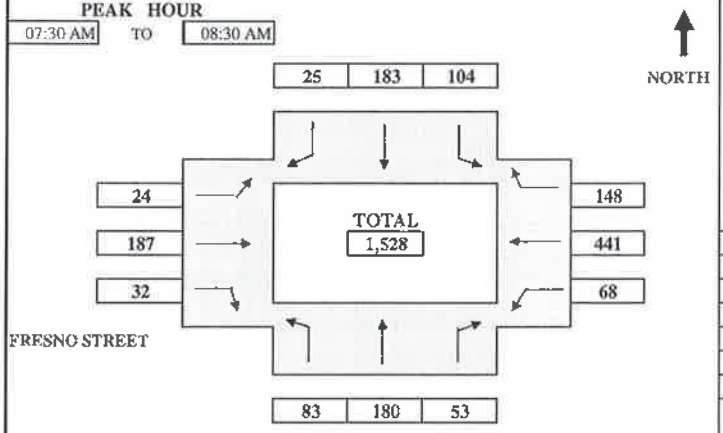
Telephone: (510)232-1271 Fax: (510)232-1272

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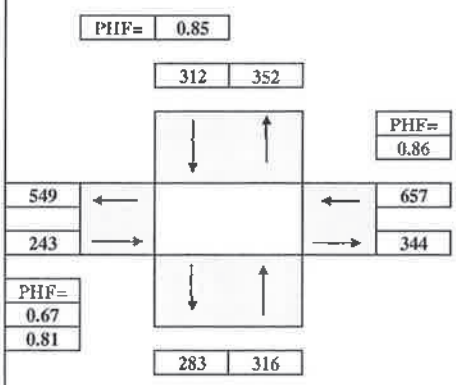
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	R STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-66AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	9	17	12	14	21	1	7	36	7	7	65	16	*212*
7:15 AM	---	7:30 AM	24	43	20	24	49	5	14	65	11	12	148	38	*453*
7:30 AM	---	7:45 AM	49	88	28	60	99	11	21	97	17	26	245	76	*817*
7:45 AM	---	8:00 AM	67	135	46	83	144	20	25	144	24	47	375	115	*1,225*
8:00 AM	---	8:15 AM	86	179	62	104	204	24	28	194	36	62	497	147	*1,623*
8:15 AM	---	8:30 AM	107	223	73	128	232	30	38	252	43	80	589	186	*1,981*
8:30 AM	---	8:45 AM	121	276	91	150	251	34	42	313	54	91	682	223	*2,328*
8:45 AM	---	9:00 AM	130	325	109	167	286	43	53	376	71	109	774	257	*2,700*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	9	17	12	14	21	1	7	36	7	7	65	16	*212*
7:15 AM	---	7:30 AM	15	26	8	10	28	4	7	29	4	5	83	22	*241*
7:30 AM	---	7:45 AM	25	45	8	36	50	6	7	32	6	14	97	38	*364*
7:45 AM	---	8:00 AM	18	47	18	23	45	9	4	47	7	21	130	39	*408*
8:00 AM	---	8:15 AM	19	44	16	21	60	4	3	50	12	15	122	32	*398*
8:15 AM	---	8:30 AM	21	44	11	24	28	6	10	58	7	18	92	39	*358*
8:30 AM	---	8:45 AM	14	53	18	22	19	4	4	61	11	11	93	37	*347*
8:45 AM	---	9:00 AM	9	49	18	17	35	9	11	63	17	18	92	34	*372*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	67	135	46	83	144	20	25	144	24	47	375	115	*1,225*
7:15 AM	---	8:15 AM	77	162	50	90	183	23	21	158	29	55	432	131	*1,411*
7:30 AM	---	8:30 AM	83	180	53	104	183	25	24	187	32	68	441	148	*1,528*
7:45 AM	---	8:45 AM	72	188	63	90	152	23	21	216	37	65	437	147	*1,511*
8:00 AM	---	9:00 AM	63	190	63	84	142	23	28	232	47	62	399	142	*1,475*

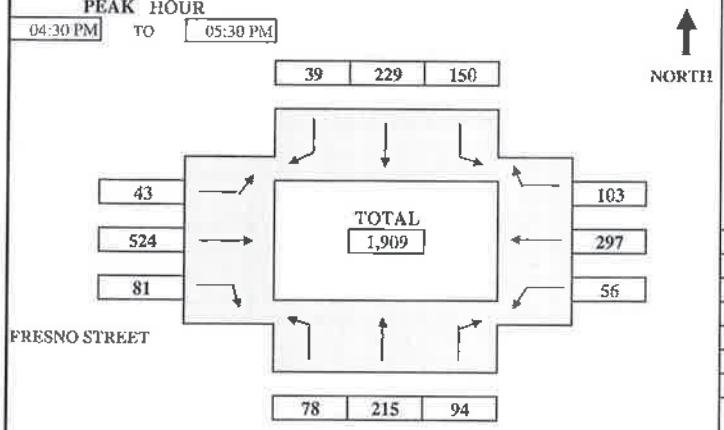
Telephone: (510)232-1271 Fax: (510)232-1272

P

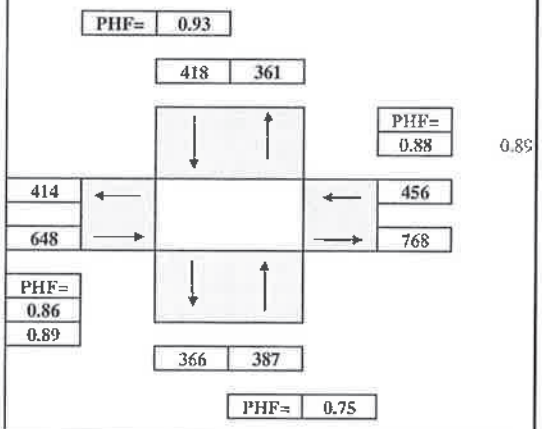
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	R STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	FRESNO STREET	CITY:	FRESNO	FILE:	2911072-66PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	18	43	19	40	40	8	10	156	23	12	95	23	*487*
4:15 PM	---	4:30 PM	30	87	32	70	77	14	20	239	39	31	166	42	*847*
4:30 PM	---	4:45 PM	49	132	51	113	123	20	28	378	60	47	254	66	*1,321*
4:45 PM	---	5:00 PM	64	170	73	150	180	31	37	508	89	58	331	95	*1,786*
5:00 PM	---	5:15 PM	87	242	107	187	240	46	47	660	109	73	394	118	*2,310*
5:15 PM	---	5:30 PM	108	302	126	220	306	53	63	763	120	87	463	145	*2,756*
5:30 PM	---	5:45 PM	121	347	138	255	362	66	76	837	131	94	525	169	*3,121*
5:45 PM	---	6:00 PM	131	384	145	294	396	71	88	900	136	111	568	189	*3,413*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	18	43	19	40	40	8	10	156	23	12	95	23	*487*
4:15 PM	---	4:30 PM	12	44	13	30	37	6	10	83	16	19	71	19	*360*
4:30 PM	---	4:45 PM	19	45	19	43	46	6	8	139	21	16	88	24	*474*
4:45 PM	---	5:00 PM	15	38	22	37	57	11	9	130	29	11	77	29	*465*
5:00 PM	---	5:15 PM	23	72	34	37	60	15	10	152	20	15	63	23	*524*
5:15 PM	---	5:30 PM	21	60	19	33	66	7	16	103	11	14	69	27	*446*
5:30 PM	---	5:45 PM	13	45	12	35	56	13	13	74	11	7	62	24	*365*
5:45 PM	---	6:00 PM	10	37	7	39	34	5	12	63	5	17	43	20	*292*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	64	170	73	150	180	31	37	508	89	58	331	95	*1,786*
4:15 PM	---	5:15 PM	69	199	88	147	200	38	37	504	86	61	299	95	*1,823*
4:30 PM	---	5:30 PM	78	215	94	150	229	39	43	524	81	56	297	103	*1,909*
4:45 PM	---	5:45 PM	72	215	87	142	239	46	48	459	71	47	271	103	*1,800*
5:00 PM	---	6:00 PM	67	214	72	144	216	40	51	392	47	53	237	94	*1,627*

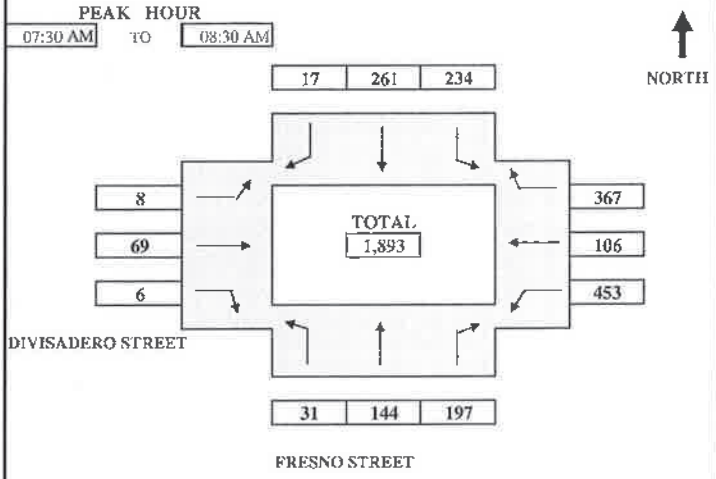
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

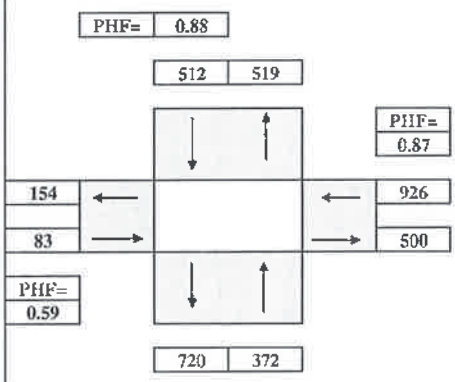
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	FRESNO STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-37AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



PHF= 0.83 0.89

TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	4	27	39	41	37	0	1	18	0	66	27	55	*315*
7:15 AM	---	7:30 AM	7	49	65	90	67	2	3	28	2	149	64	134	*660*
7:30 AM	---	7:45 AM	14	79	114	169	117	7	6	57	5	263	88	210	*1,129*
7:45 AM	---	8:00 AM	21	119	158	233	194	11	6	78	6	383	133	312	*1,654*
8:00 AM	---	8:15 AM	30	158	214	286	281	17	8	90	6	507	148	395	*2,140*
8:15 AM	---	8:30 AM	38	193	262	324	328	19	11	97	8	602	170	501	*2,553*
8:30 AM	---	8:45 AM	49	239	317	379	378	22	11	106	9	697	187	613	*3,007*
8:45 AM	---	9:00 AM	51	282	378	434	428	26	12	112	11	802	198	701	*3,435*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	4	27	39	41	37	0	1	18	0	66	27	55	*315*
7:15 AM	---	7:30 AM	3	22	26	49	30	2	2	10	2	83	37	79	*345*
7:30 AM	---	7:45 AM	7	30	49	79	50	5	3	29	3	114	24	76	*469*
7:45 AM	---	8:00 AM	7	40	44	64	77	4	0	21	1	120	45	102	*525*
8:00 AM	---	8:15 AM	9	39	56	53	87	6	2	12	0	124	15	83	*486*
8:15 AM	---	8:30 AM	8	35	48	38	47	2	3	7	2	95	22	106	*413*
8:30 AM	---	8:45 AM	11	46	55	55	50	3	0	9	1	95	17	112	*454*
8:45 AM	---	9:00 AM	2	43	61	55	50	4	1	6	2	105	11	88	*428*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	21	119	158	233	194	11	6	78	6	383	133	312	*1,654*
7:15 AM	---	8:15 AM	26	131	175	245	244	17	7	72	6	441	121	340	*1,825*
7:30 AM	---	8:30 AM	31	144	197	234	261	17	8	69	6	453	106	367	*1,893*
7:45 AM	---	8:45 AM	35	160	203	210	261	15	5	49	4	434	99	403	*1,878*
8:00 AM	---	9:00 AM	30	163	220	201	234	15	6	34	5	419	65	389	*1,781*

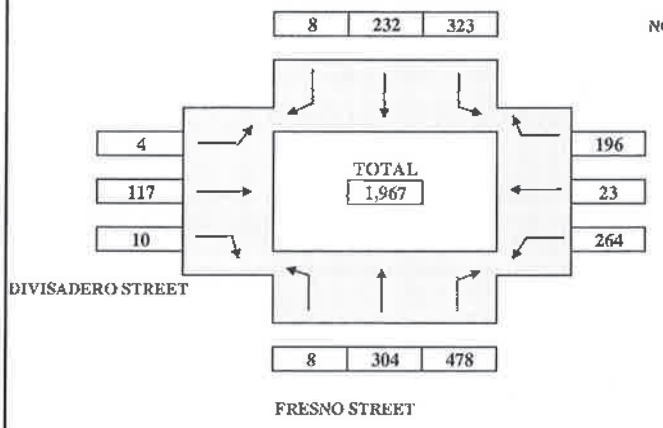
Telephone: (510)232-1271 Fax: (510)232-1272

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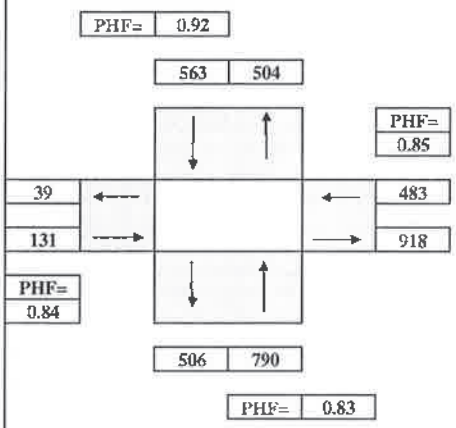
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	FRESNO STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-37PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	6	85	140	72	67	0	3	31	2	78	11	52	*547*
4:15 PM	---	4:30 PM	10	134	222	134	121	2	4	55	4	138	19	95	*938*
4:30 PM	---	4:45 PM	11	208	358	220	185	5	5	90	7	204	25	143	*1,461*
4:45 PM	---	5:00 PM	13	282	487	304	241	7	6	119	10	264	29	189	*1,951*
5:00 PM	---	5:15 PM	14	389	618	395	299	8	7	148	12	342	34	248	*2,514*
5:15 PM	---	5:30 PM	16	450	721	452	331	10	7	156	13	411	40	296	*2,903*
5:30 PM	---	5:45 PM	21	502	805	542	362	12	7	183	15	462	51	348	*3,310*
5:45 PM	---	6:00 PM	22	538	888	584	401	13	7	201	16	540	63	390	*3,663*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	6	85	140	72	67	0	3	31	2	78	11	52	*547*
4:15 PM	---	4:30 PM	4	49	82	62	54	2	1	24	2	60	8	43	*391*
4:30 PM	---	4:45 PM	1	74	136	86	64	3	1	35	3	66	6	48	*523*
4:45 PM	---	5:00 PM	2	74	129	84	56	2	1	29	3	60	4	46	*490*
5:00 PM	---	5:15 PM	1	107	131	91	58	1	1	29	2	78	5	59	*563*
5:15 PM	---	5:30 PM	2	61	103	57	32	2	0	8	1	69	6	48	*389*
5:30 PM	---	5:45 PM	5	52	84	90	31	2	0	27	2	51	11	52	*407*
5:45 PM	---	6:00 PM	1	36	83	42	39	1	0	18	1	78	12	42	*353*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	13	282	487	304	241	7	6	119	10	264	29	189	*1,951*
4:15 PM	---	5:15 PM	8	304	478	323	232	8	4	117	10	264	23	196	*1,967*
4:30 PM	---	5:30 PM	6	316	499	318	210	8	3	101	9	273	21	201	*1,965*
4:45 PM	---	5:45 PM	10	294	447	322	177	7	2	93	8	258	26	205	*1,849*
5:00 PM	---	6:00 PM	9	256	401	280	160	6	1	82	6	276	34	201	*1,712*

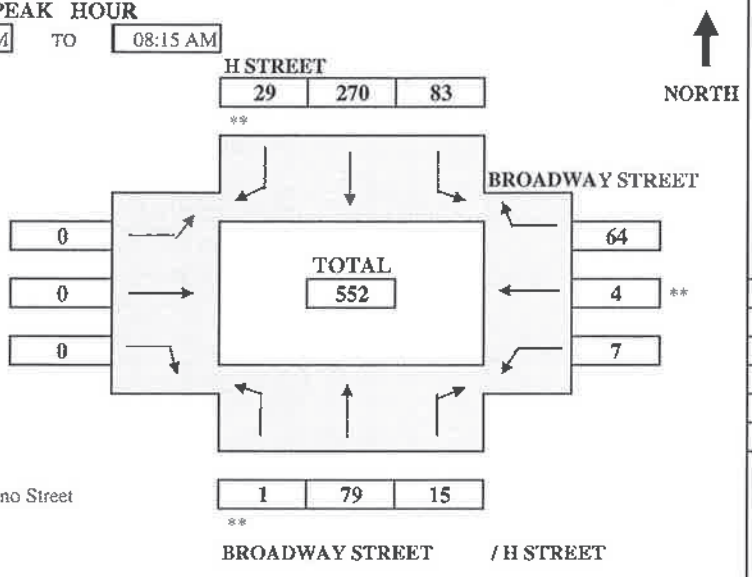
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

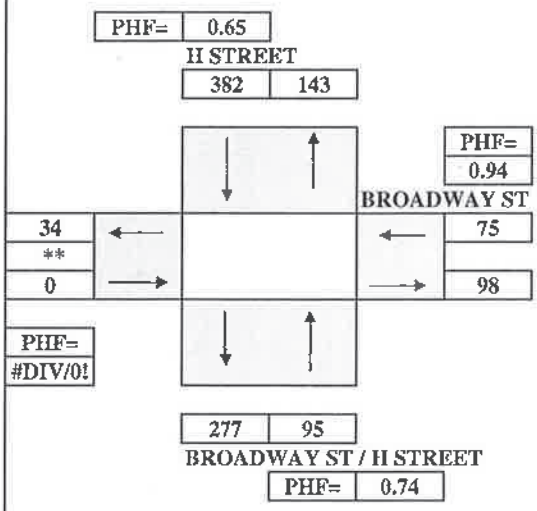
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	H STREET	CITY:	FRESNO	FILE:	2911072-4AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	8	4	14	34	4	0	0	0	1	0	4	*69*
7:15 AM	---	7:30 AM	0	20	7	38	75	11	0	0	0	1	0	19	*171*
7:30 AM	---	7:45 AM	1	32	11	55	127	16	0	0	0	4	3	33	*282*
7:45 AM	---	8:00 AM	1	61	14	85	239	21	0	0	0	5	4	51	*481*
8:00 AM	---	8:15 AM	1	87	19	97	304	33	0	0	0	8	4	68	*621*
8:15 AM	---	8:30 AM	1	98	21	105	340	37	0	0	0	8	5	72	*687*
8:30 AM	---	8:45 AM	1	117	29	115	391	45	0	0	0	8	5	83	*794*
8:45 AM	---	9:00 AM	5	124	34	123	416	51	0	0	0	9	5	89	*856*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	8	4	14	34	4	0	0	0	1	0	4	*69*
7:15 AM	---	7:30 AM	0	12	3	24	41	7	0	0	0	0	0	15	*102*
7:30 AM	---	7:45 AM	1	12	4	17	52	5	0	0	0	3	3	14	*111*
7:45 AM	---	8:00 AM	0	29	3	30	112	5	0	0	0	1	1	18	*199*
8:00 AM	---	8:15 AM	0	26	5	12	65	12	0	0	0	3	0	17	*140*
8:15 AM	---	8:30 AM	0	11	2	8	36	4	0	0	0	0	1	4	*66*
8:30 AM	---	8:45 AM	0	19	8	10	51	8	0	0	0	0	0	11	*107*
8:45 AM	---	9:00 AM	4	7	5	8	25	6	0	0	0	1	0	6	*62*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	1	61	14	85	239	21	0	0	0	5	4	51	*481*
7:15 AM	---	8:15 AM	1	79	15	83	270	29	0	0	0	7	4	64	*552*
7:30 AM	---	8:30 AM	1	78	14	67	265	26	0	0	0	7	5	53	*516*
7:45 AM	---	8:45 AM	0	85	18	60	264	29	0	0	0	4	2	50	*512*
8:00 AM	---	9:00 AM	4	63	20	38	177	30	0	0	0	4	1	38	*375*

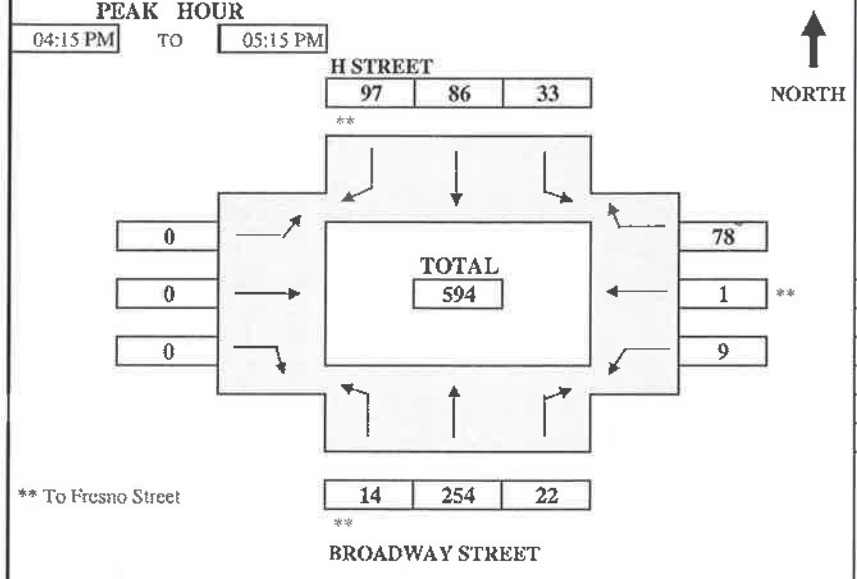
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

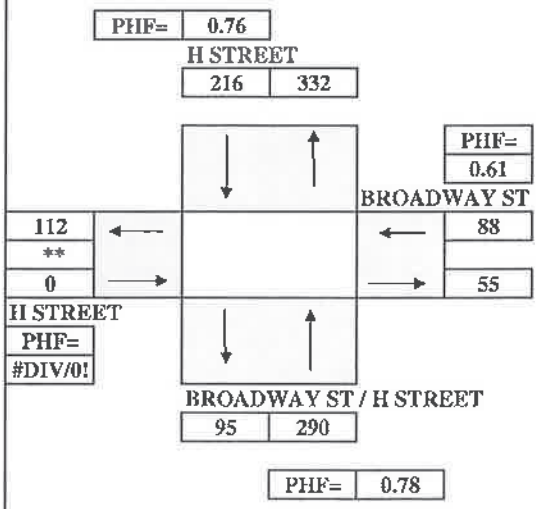
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/10/2009	DAY:	TUESDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	H STREET	CITY:	FRESNO	FILE:	2911072-4PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	4	34	10	3	32	24	0	0	0	0	0	7	*114*
4:15 PM	---	4:30 PM	7	85	16	10	52	39	0	0	0	2	0	26	*237*
4:30 PM	---	4:45 PM	13	158	21	21	79	67	0	0	0	6	0	39	*404*
4:45 PM	---	5:00 PM	13	204	28	25	96	83	0	0	0	6	1	52	*508*
5:00 PM	---	5:15 PM	18	288	32	36	118	121	0	0	0	9	1	85	*708*
5:15 PM	---	5:30 PM	21	337	35	40	138	140	0	0	0	12	2	98	*823*
5:30 PM	---	5:45 PM	27	382	40	43	155	153	0	0	0	12	2	110	*924*
5:45 PM	---	6:00 PM	28	396	42	46	175	162	0	0	0	12	2	115	*978*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	4	34	10	3	32	24	0	0	0	0	0	7	*114*
4:15 PM	---	4:30 PM	3	51	6	7	20	15	0	0	0	2	0	19	*123*
4:30 PM	---	4:45 PM	6	73	5	11	27	28	0	0	0	4	0	13	*167*
4:45 PM	---	5:00 PM	0	46	7	4	17	16	0	0	0	0	1	13	*104*
5:00 PM	---	5:15 PM	5	84	4	11	22	38	0	0	0	3	0	33	*200*
5:15 PM	---	5:30 PM	3	49	3	4	20	19	0	0	0	3	1	13	*115*
5:30 PM	---	5:45 PM	6	45	5	3	17	13	0	0	0	0	0	12	*101*
5:45 PM	---	6:00 PM	1	14	2	3	20	9	0	0	0	0	0	5	*54*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	13	204	28	25	96	83	0	0	0	6	1	52	*508*
4:15 PM	---	5:15 PM	14	254	22	33	86	97	0	0	0	9	1	78	*594*
4:30 PM	---	5:30 PM	14	252	19	30	86	101	0	0	0	10	2	72	*586*
4:45 PM	---	5:45 PM	14	224	19	22	76	86	0	0	0	6	2	71	*520*
5:00 PM	---	6:00 PM	15	192	14	21	79	79	0	0	0	6	1	63	*470*

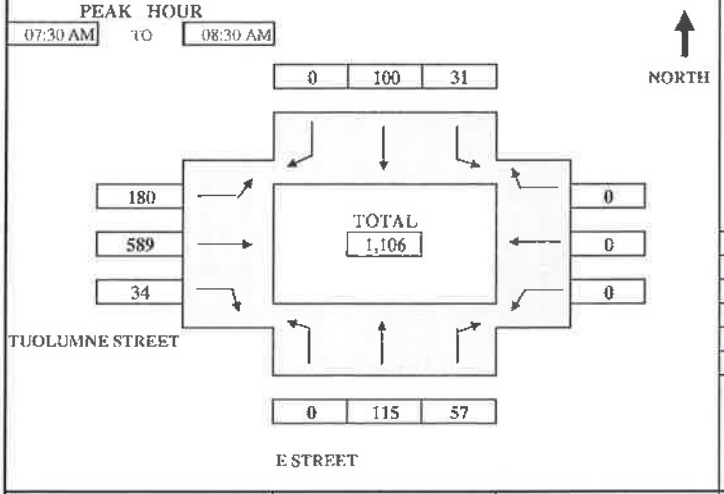
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

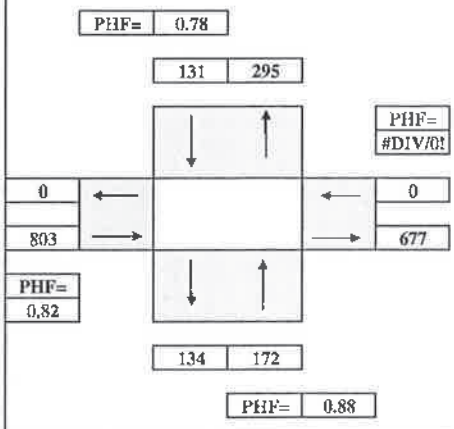
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	E STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TUOLUMNE STREET	CITY:	FRESNO	FILE:	2911072-33AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	25	9	4	17	0	32	94	1	0	0	0	*182*
7:15 AM	---	7:30 AM	0	45	24	17	41	0	59	241	4	0	0	0	*431*
7:30 AM	---	7:45 AM	0	70	37	26	61	0	101	400	8	0	0	0	*703*
7:45 AM	---	8:00 AM	0	101	55	33	96	0	144	588	21	0	0	0	*1,038*
8:00 AM	---	8:15 AM	0	126	70	40	114	0	190	695	31	0	0	0	*1,266*
8:15 AM	---	8:30 AM	0	160	81	48	141	0	239	830	38	0	0	0	*1,537*
8:30 AM	---	8:45 AM	0	186	85	57	170	0	268	945	45	0	0	0	*1,756*
8:45 AM	---	9:00 AM	0	211	93	67	196	0	299	1,049	46	0	0	0	*1,961*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	25	9	4	17	0	32	94	1	0	0	0	*182*
7:15 AM	---	7:30 AM	0	20	15	13	24	0	27	147	3	0	0	0	*249*
7:30 AM	---	7:45 AM	0	25	13	9	20	0	42	159	4	0	0	0	*272*
7:45 AM	---	8:00 AM	0	31	18	7	35	0	43	188	13	0	0	0	*335*
8:00 AM	---	8:15 AM	0	25	15	7	18	0	46	107	10	0	0	0	*228*
8:15 AM	---	8:30 AM	0	34	11	8	27	0	49	135	7	0	0	0	*271*
8:30 AM	---	8:45 AM	0	26	4	9	29	0	29	115	7	0	0	0	*219*
8:45 AM	---	9:00 AM	0	25	8	10	26	0	31	104	1	0	0	0	*205*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	101	55	33	96	0	144	588	21	0	0	0	*1,038*
7:15 AM	---	8:15 AM	0	101	61	36	97	0	158	601	30	0	0	0	*1,084*
7:30 AM	---	8:30 AM	0	115	57	31	100	0	180	589	34	0	0	0	*1,106*
7:45 AM	---	8:45 AM	0	116	48	31	109	0	167	545	37	0	0	0	*1,053*
8:00 AM	---	9:00 AM	0	110	38	34	100	0	155	461	25	0	0	0	*923*

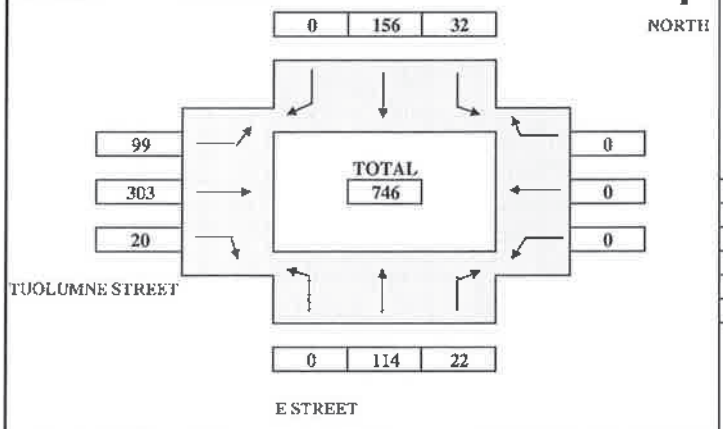
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

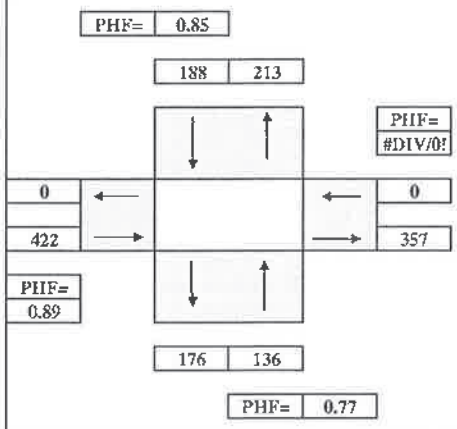
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	E STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TUOLUMNE STREET	CITY:	FRESNO	FILE:	2911072-33PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	30	10	11	26	0	25	60	7	0	0	0	*169*
4:15 PM	---	4:30 PM	0	56	15	15	62	0	49	133	10	0	0	0	*340*
4:30 PM	---	4:45 PM	0	84	21	25	107	0	80	204	17	0	0	0	*538*
4:45 PM	---	5:00 PM	0	107	25	34	145	0	104	271	21	0	0	0	*707*
5:00 PM	---	5:15 PM	0	144	32	43	182	0	124	363	27	0	0	0	*915*
5:15 PM	---	5:30 PM	0	169	41	48	211	0	136	423	29	0	0	0	*1,057*
5:30 PM	---	5:45 PM	0	190	50	50	237	0	153	477	30	0	0	0	*1,187*
5:45 PM	---	6:00 PM	0	203	56	54	260	0	167	509	31	0	0	0	*1,280*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	30	10	11	26	0	25	60	7	0	0	0	*169*
4:15 PM	---	4:30 PM	0	26	5	4	36	0	24	73	3	0	0	0	*171*
4:30 PM	---	4:45 PM	0	28	6	10	45	0	31	71	7	0	0	0	*198*
4:45 PM	---	5:00 PM	0	23	4	9	38	0	24	67	4	0	0	0	*169*
5:00 PM	---	5:15 PM	0	37	7	9	37	0	20	92	6	0	0	0	*208*
5:15 PM	---	5:30 PM	0	25	9	5	29	0	12	60	2	0	0	0	*142*
5:30 PM	---	5:45 PM	0	21	9	2	26	0	17	54	1	0	0	0	*130*
5:45 PM	---	6:00 PM	0	13	6	4	23	0	14	32	1	0	0	0	*93*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	107	25	34	145	0	104	271	21	0	0	0	*707*
4:15 PM	---	5:15 PM	0	114	22	32	156	0	99	303	20	0	0	0	*746*
4:30 PM	---	5:30 PM	0	113	26	33	149	0	87	290	19	0	0	0	*717*
4:45 PM	---	5:45 PM	0	106	29	25	130	0	73	273	13	0	0	0	*649*
5:00 PM	---	6:00 PM	0	96	31	20	115	0	63	238	10	0	0	0	*573*

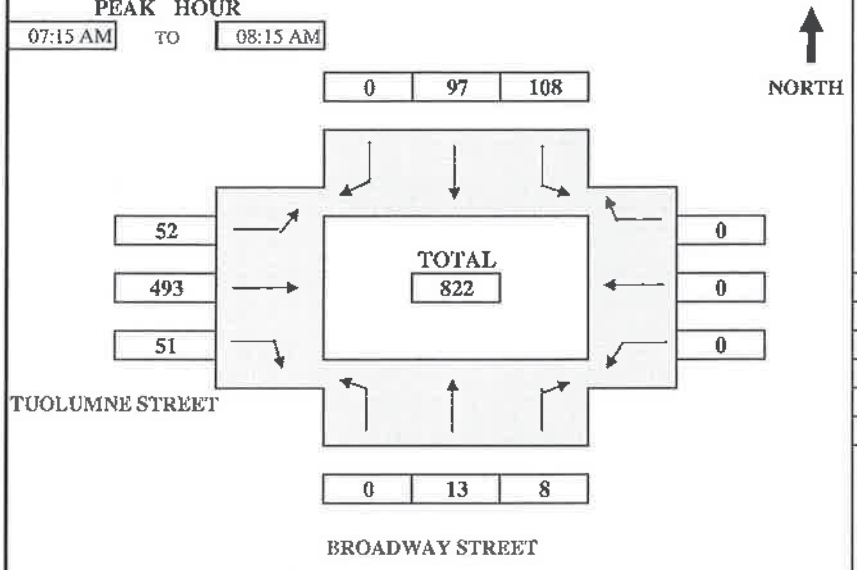
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

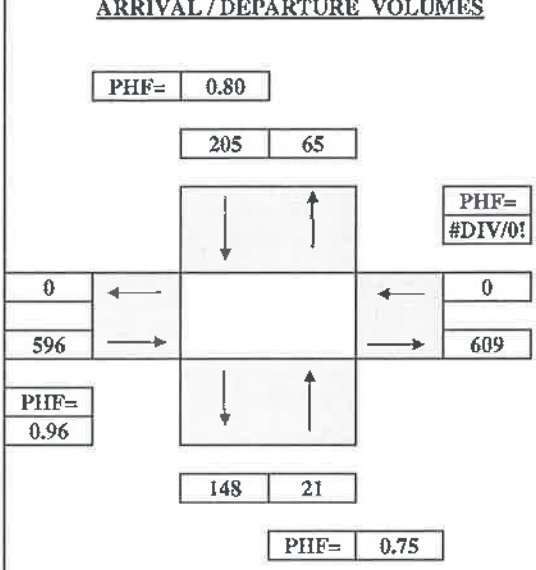
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TUOLUMNE STREET	CITY:	FRESNO	FILE:	2911072-3AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	2	1	13	16	0	14	56	11	0	0	0	*113*
7:15 AM	---	7:30 AM	0	5	2	48	45	0	25	170	36	0	0	0	*331*
7:30 AM	---	7:45 AM	0	8	5	79	62	0	42	290	45	0	0	0	*531*
7:45 AM	---	8:00 AM	0	13	7	98	88	0	55	422	55	0	0	0	*738*
8:00 AM	---	8:15 AM	0	15	9	121	113	0	66	549	62	0	0	0	*935*
8:15 AM	---	8:30 AM	0	19	11	141	127	0	72	645	71	0	0	0	*1,086*
8:30 AM	---	8:45 AM	0	21	12	160	137	0	84	746	75	0	0	0	*1,235*
8:45 AM	---	9:00 AM	0	24	13	174	144	0	89	854	76	0	0	0	*1,374*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	2	1	13	16	0	14	56	11	0	0	0	*113*
7:15 AM	---	7:30 AM	0	3	1	35	29	0	11	114	25	0	0	0	*218*
7:30 AM	---	7:45 AM	0	3	3	31	17	0	17	120	9	0	0	0	*200*
7:45 AM	---	8:00 AM	0	5	2	19	26	0	13	132	10	0	0	0	*207*
8:00 AM	---	8:15 AM	0	2	2	23	25	0	11	127	7	0	0	0	*197*
8:15 AM	---	8:30 AM	0	4	2	20	14	0	6	96	9	0	0	0	*151*
8:30 AM	---	8:45 AM	0	2	1	19	10	0	12	101	4	0	0	0	*149*
8:45 AM	---	9:00 AM	0	3	1	14	7	0	5	108	1	0	0	0	*139*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	13	7	98	88	0	55	422	55	0	0	0	*738*
7:15 AM	---	8:15 AM	0	13	8	108	97	0	52	493	51	0	0	0	*822*
7:30 AM	---	8:30 AM	0	14	9	93	82	0	47	475	35	0	0	0	*755*
7:45 AM	---	8:45 AM	0	13	7	81	75	0	42	456	30	0	0	0	*704*
8:00 AM	---	9:00 AM	0	11	6	76	56	0	34	432	21	0	0	0	*636*

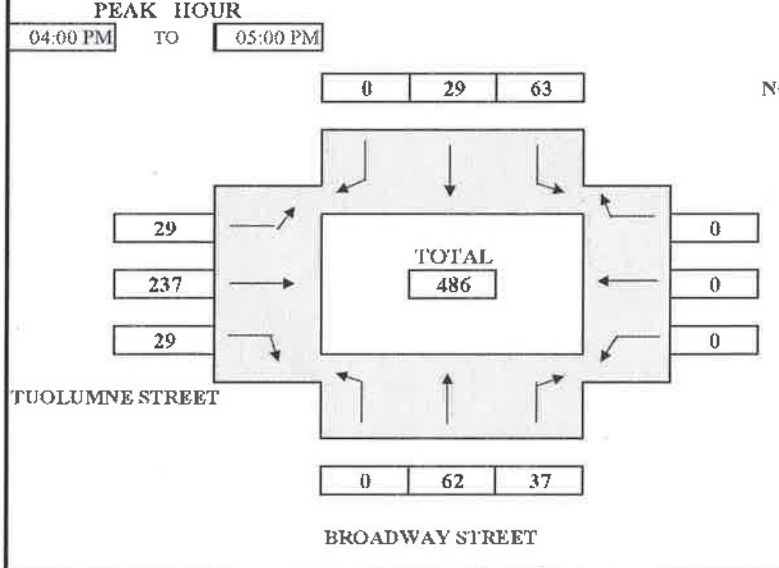
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

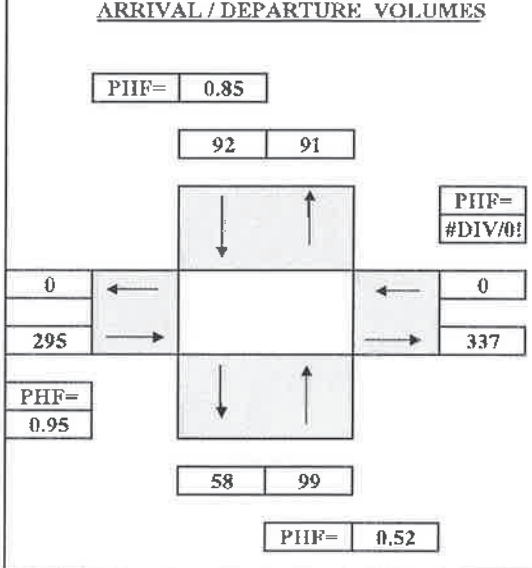
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TUOLUMNE STREET	CITY:	FRESNO	FILE:	2911072-3PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	27	21	17	10	0	8	60	9	0	0	0	*152*
4:15 PM	---	4:30 PM	0	39	28	33	21	0	20	112	23	0	0	0	*276*
4:30 PM	---	4:45 PM	0	51	34	45	28	0	25	170	27	0	0	0	*380*
4:45 PM	---	5:00 PM	0	62	37	63	29	0	29	237	29	0	0	0	*486*
5:00 PM	---	5:15 PM	0	79	45	81	29	0	38	309	30	0	0	0	*611*
5:15 PM	---	5:30 PM	0	85	49	87	29	0	45	377	31	0	0	0	*703*
5:30 PM	---	5:45 PM	0	92	52	90	30	0	52	426	31	0	0	0	*773*
5:45 PM	---	6:00 PM	0	97	56	92	32	0	57	461	31	0	0	0	*826*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	27	21	17	10	0	8	60	9	0	0	0	*152*
4:15 PM	---	4:30 PM	0	12	7	16	11	0	12	52	14	0	0	0	*124*
4:30 PM	---	4:45 PM	0	12	6	12	7	0	5	58	4	0	0	0	*104*
4:45 PM	---	5:00 PM	0	11	3	18	1	0	4	67	2	0	0	0	*106*
5:00 PM	---	5:15 PM	0	17	8	18	0	0	9	72	1	0	0	0	*125*
5:15 PM	---	5:30 PM	0	6	4	6	0	0	7	68	1	0	0	0	*92*
5:30 PM	---	5:45 PM	0	7	3	3	1	0	7	49	0	0	0	0	*70*
5:45 PM	---	6:00 PM	0	5	4	2	2	0	5	35	0	0	0	0	*53*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	62	37	63	29	0	29	237	29	0	0	0	*486*
4:15 PM	---	5:15 PM	0	52	24	64	19	0	30	249	21	0	0	0	*459*
4:30 PM	---	5:30 PM	0	46	21	54	8	0	25	265	8	0	0	0	*427*
4:45 PM	---	5:45 PM	0	41	18	45	2	0	27	256	4	0	0	0	*393*
5:00 PM	---	6:00 PM	0	35	19	29	3	0	28	224	2	0	0	0	*340*

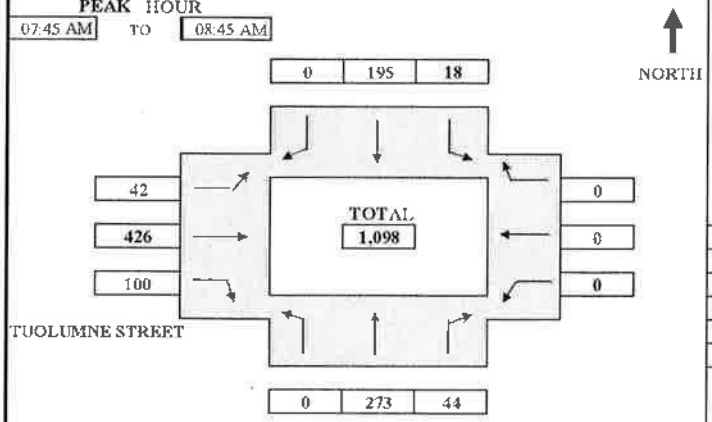
Telephone: (510)232-1271 Fax: (510)232-1272

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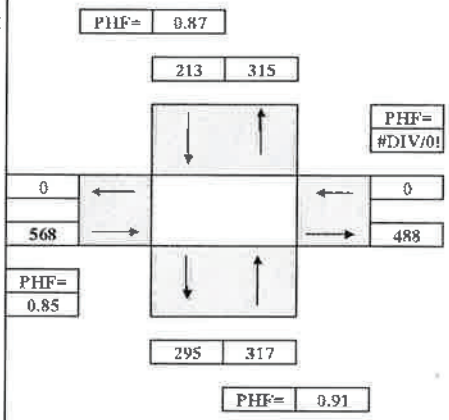
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TUOLUMNE STREET	CITY:	FRESNO	FILE:	2911072-14AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	30	2	1	8	0	4	47	7	0	0	0	*99*
7:15 AM	---	7:30 AM	0	69	6	2	36	0	12	120	24	0	0	0	*269*
7:30 AM	---	7:45 AM	0	136	12	5	68	0	18	228	43	0	0	0	*510*
7:45 AM	---	8:00 AM	0	208	24	10	124	0	31	367	58	0	0	0	*822*
8:00 AM	---	8:15 AM	0	265	32	15	174	0	43	475	95	0	0	0	*1,099*
8:15 AM	---	8:30 AM	0	333	45	20	212	0	54	560	118	0	0	0	*1,342*
8:30 AM	---	8:45 AM	0	409	56	23	263	0	60	654	143	0	0	0	*1,608*
8:45 AM	---	9:00 AM	0	466	69	25	293	0	71	738	159	0	0	0	*1,821*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	30	2	1	8	0	4	47	7	0	0	0	*99*
7:15 AM	---	7:30 AM	0	39	4	1	28	0	8	73	17	0	0	0	*170*
7:30 AM	---	7:45 AM	0	67	6	3	32	0	6	108	19	0	0	0	*241*
7:45 AM	---	8:00 AM	0	72	12	5	56	0	13	139	15	0	0	0	*312*
8:00 AM	---	8:15 AM	0	57	8	5	50	0	12	108	37	0	0	0	*277*
8:15 AM	---	8:30 AM	0	68	13	5	38	0	11	85	23	0	0	0	*243*
8:30 AM	---	8:45 AM	0	76	11	3	51	0	6	94	25	0	0	0	*266*
8:45 AM	---	9:00 AM	0	57	13	2	30	0	11	84	16	0	0	0	*213*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	208	24	10	124	0	31	367	58	0	0	0	*822*
7:15 AM	---	8:15 AM	0	235	30	14	166	0	39	428	88	0	0	0	*1,000*
7:30 AM	---	8:30 AM	0	264	39	18	176	0	42	440	94	0	0	0	*1,073*
7:45 AM	---	8:45 AM	0	273	44	18	195	0	42	426	100	0	0	0	*1,098*
8:00 AM	---	9:00 AM	0	258	45	15	169	0	40	371	101	0	0	0	*999*

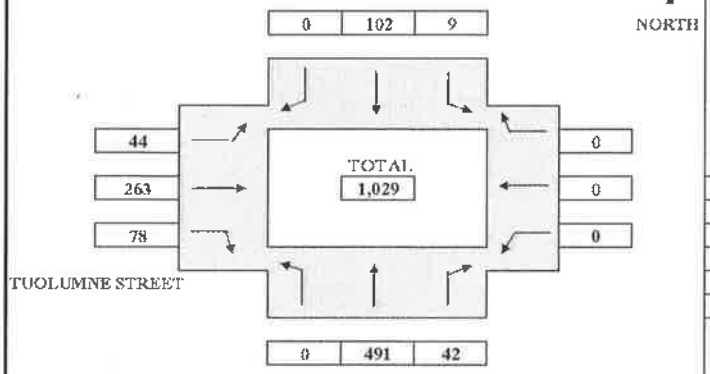
Telephone: (510)232-1271 **Fax: (510)232-1272**

B.A.Y.M.E.T.R.I.C.S.

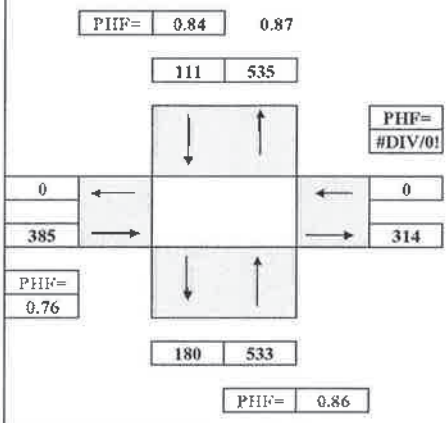
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TUOLUMNE STREET	CITY:	FRESNO	FILE:	2911072-14PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	123	9	2	31	0	15	64	30	0	0	0	*274*
4:15 PM	---	4:30 PM	0	226	18	4	61	0	21	124	47	0	0	0	*501*
4:30 PM	---	4:45 PM	0	347	29	7	86	0	28	186	67	0	0	0	*750*
4:45 PM	---	5:00 PM	0	474	36	8	116	0	34	247	86	0	0	0	*1,001*
5:00 PM	---	5:15 PM	0	614	51	11	133	0	59	327	108	0	0	0	*1,303*
5:15 PM	---	5:30 PM	0	715	67	13	153	0	68	394	116	0	0	0	*1,526*
5:30 PM	---	5:45 PM	0	825	79	15	172	0	87	453	128	0	0	0	*1,759*
5:45 PM	---	6:00 PM	0	890	87	15	186	0	87	490	139	0	0	0	*1,894*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	123	9	2	31	0	15	64	30	0	0	0	*274*
4:15 PM	---	4:30 PM	0	103	9	2	30	0	6	60	17	0	0	0	*227*
4:30 PM	---	4:45 PM	0	121	11	3	25	0	7	62	20	0	0	0	*249*
4:45 PM	---	5:00 PM	0	127	7	1	30	0	6	61	19	0	0	0	*251*
5:00 PM	---	5:15 PM	0	140	15	3	17	0	25	80	22	0	0	0	*302*
5:15 PM	---	5:30 PM	0	101	16	2	20	0	9	67	8	0	0	0	*223*
5:30 PM	---	5:45 PM	0	110	12	2	19	0	19	59	12	0	0	0	*233*
5:45 PM	---	6:00 PM	0	65	8	0	14	0	0	37	11	0	0	0	*135*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	474	36	8	116	0	34	247	86	0	0	0	*1,001*
4:15 PM	---	5:15 PM	0	491	42	9	102	0	44	263	78	0	0	0	*1,029*
4:30 PM	---	5:30 PM	0	489	49	9	92	0	47	270	69	0	0	0	*1,025*
4:45 PM	---	5:45 PM	0	478	50	8	86	0	59	267	61	0	0	0	*1,009*
5:00 PM	---	6:00 PM	0	416	51	7	70	0	53	243	53	0	0	0	*893*

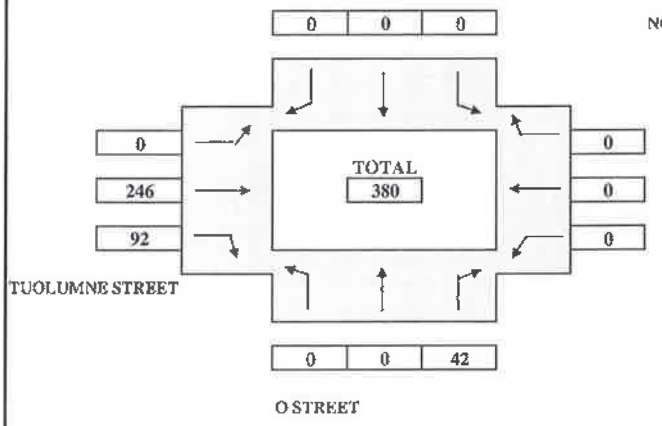
Telephone: (510)232-1271 Fax: (510)232-1272

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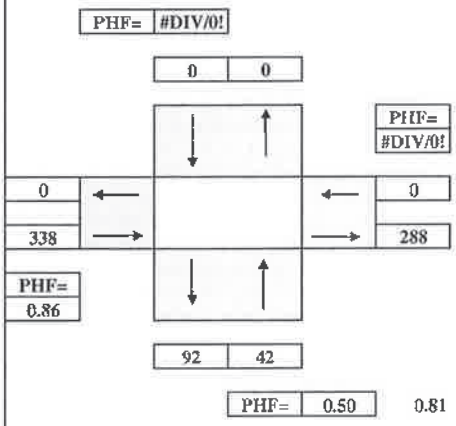
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	O STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	TUOLUMNE STREET	CITY:	FRESNO	FILE:	2911072-56AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	9	0	0	0	0	19	11	0	0	0	*39*
7:15 AM	---	7:30 AM	0	0	16	0	0	0	0	55	27	0	0	0	*98*
7:30 AM	---	7:45 AM	0	0	21	0	0	0	0	126	41	0	0	0	*188*
7:45 AM	---	8:00 AM	0	0	34	0	0	0	0	196	69	0	0	0	*299*
8:00 AM	---	8:15 AM	0	0	45	0	0	0	0	260	90	0	0	0	*395*
8:15 AM	---	8:30 AM	0	0	56	0	0	0	0	313	106	0	0	0	*475*
8:30 AM	---	8:45 AM	0	0	63	0	0	0	0	372	133	0	0	0	*568*
8:45 AM	---	9:00 AM	0	0	84	0	0	0	0	433	155	0	0	0	*672*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	9	0	0	0	0	19	11	0	0	0	*39*
7:15 AM	---	7:30 AM	0	0	7	0	0	0	0	36	16	0	0	0	*59*
7:30 AM	---	7:45 AM	0	0	5	0	0	0	0	71	14	0	0	0	*90*
7:45 AM	---	8:00 AM	0	0	13	0	0	0	0	70	28	0	0	0	*111*
8:00 AM	---	8:15 AM	0	0	11	0	0	0	0	64	21	0	0	0	*96*
8:15 AM	---	8:30 AM	0	0	11	0	0	0	0	53	16	0	0	0	*80*
8:30 AM	---	8:45 AM	0	0	7	0	0	0	0	59	27	0	0	0	*93*
8:45 AM	---	9:00 AM	0	0	21	0	0	0	0	61	22	0	0	0	*104*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	34	0	0	0	0	196	69	0	0	0	*299*
7:15 AM	---	8:15 AM	0	0	36	0	0	0	0	241	79	0	0	0	*356*
7:30 AM	---	8:30 AM	0	0	40	0	0	0	0	258	79	0	0	0	*377*
7:45 AM	---	8:45 AM	0	0	42	0	0	0	0	246	92	0	0	0	*380*
8:00 AM	---	9:00 AM	0	0	50	0	0	0	0	237	86	0	0	0	*373*

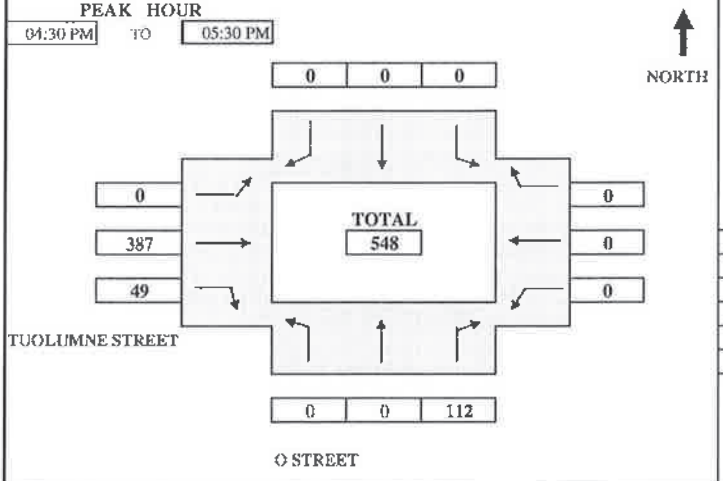
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

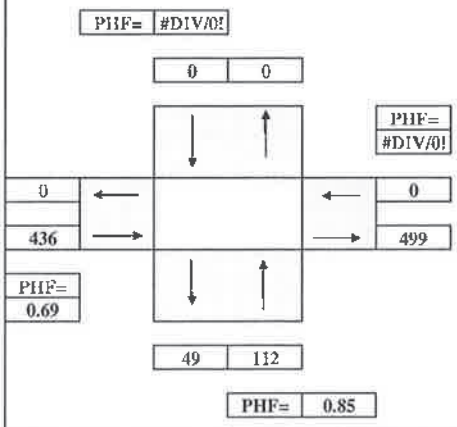
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	O STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	TUOLUMNE STREET	CITY:	FRESNO	FILE:	2911072-56PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	23	0	0	0	0	84	16	0	0	0	*123*
4:15 PM	---	4:30 PM	0	0	47	0	0	0	0	140	26	0	0	0	*213*
4:30 PM	---	4:45 PM	0	0	77	0	0	0	0	214	40	0	0	0	*331*
4:45 PM	---	5:00 PM	0	0	100	0	0	0	0	301	47	0	0	0	*448*
5:00 PM	---	5:15 PM	0	0	133	0	0	0	0	442	65	0	0	0	*640*
5:15 PM	---	5:30 PM	0	0	159	0	0	0	0	527	75	0	0	C	*761*
5:30 PM	---	5:45 PM	0	0	172	0	0	0	0	581	83	0	0	C	*836*
5:45 PM	---	6:00 PM	0	0	186	0	0	0	0	616	90	0	0	0	*892*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	23	0	0	0	0	84	16	0	0	0	*123*
4:15 PM	---	4:30 PM	0	0	24	0	0	0	0	56	10	0	0	C	*90*
4:30 PM	---	4:45 PM	0	0	30	0	0	0	0	74	14	0	0	C	*118*
4:45 PM	---	5:00 PM	0	0	23	0	0	0	0	87	7	0	0	C	*117*
5:00 PM	---	5:15 PM	0	0	33	0	0	0	0	141	18	0	0	C	*192*
5:15 PM	---	5:30 PM	0	0	26	0	0	0	0	85	10	0	0	0	*121*
5:30 PM	---	5:45 PM	0	0	13	0	0	0	0	54	8	0	0	0	*75*
5:45 PM	---	6:00 PM	0	0	14	0	0	0	0	35	7	0	0	C	*56*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	100	0	0	0	0	301	47	0	0	0	*448*
4:15 PM	---	5:15 PM	0	0	110	0	0	0	0	358	49	0	0	C	*517*
4:30 PM	---	5:30 PM	0	0	112	0	0	0	0	387	49	0	0	0	*548*
4:45 PM	---	5:45 PM	0	0	95	0	0	0	0	367	43	0	0	0	*505*
5:00 PM	---	6:00 PM	0	0	86	0	0	0	0	315	43	0	0	0	*444*

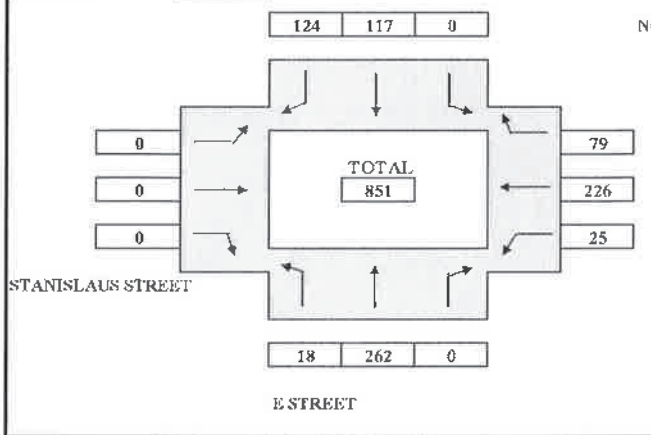
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

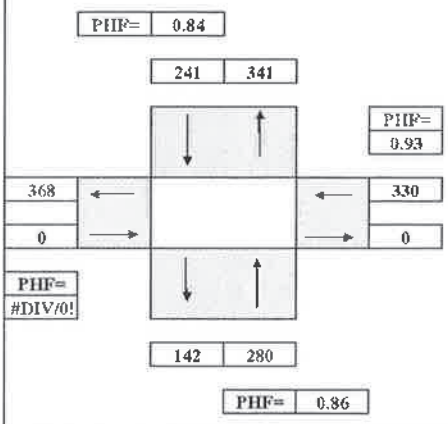
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	IIST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	E STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	STANISLAUS STREET	CITY:	FRESNO	FILE:	2911072-28AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	5	52	0	0	21	30	0	0	0	2	37	15	*162*
7:15 AM	---	7:30 AM	10	94	0	0	51	49	0	0	0	9	79	28	*320*
7:30 AM	---	7:45 AM	14	157	0	0	78	72	0	0	0	11	128	47	*507*
7:45 AM	---	8:00 AM	16	228	0	0	112	92	0	0	0	19	177	69	*713*
8:00 AM	---	8:15 AM	20	295	0	0	134	130	0	0	0	24	232	86	*921*
8:15 AM	---	8:30 AM	27	369	0	0	160	159	0	0	0	33	294	104	*1,146*
8:30 AM	---	8:45 AM	32	419	0	0	195	196	0	0	0	36	354	126	*1,358*
8:45 AM	---	9:00 AM	34	473	0	0	226	216	0	0	0	41	414	139	*1,543*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	5	52	0	0	21	30	0	0	0	2	37	15	*162*
7:15 AM	---	7:30 AM	5	42	0	0	30	19	0	0	0	7	42	13	*158*
7:30 AM	---	7:45 AM	4	63	0	0	27	23	0	0	0	2	49	19	*187*
7:45 AM	---	8:00 AM	2	71	0	0	34	20	0	0	0	8	49	22	*206*
8:00 AM	---	8:15 AM	4	67	0	0	22	38	0	0	0	5	55	17	*208*
8:15 AM	---	8:30 AM	7	74	0	0	26	29	0	0	0	9	62	18	*225*
8:30 AM	---	8:45 AM	5	50	0	0	35	37	0	0	0	3	60	22	*212*
8:45 AM	---	9:00 AM	2	54	0	0	31	20	0	0	0	5	60	13	*185*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	16	228	0	0	112	92	0	0	0	19	177	69	*713*
7:15 AM	---	8:15 AM	15	243	0	0	113	100	0	0	0	22	195	71	*759*
7:30 AM	---	8:30 AM	17	275	0	0	109	110	0	0	0	24	215	76	*826*
7:45 AM	---	8:45 AM	18	262	0	0	117	124	0	0	0	25	226	79	*851*
8:00 AM	---	9:00 AM	18	245	0	0	114	124	0	0	0	22	237	70	*830*

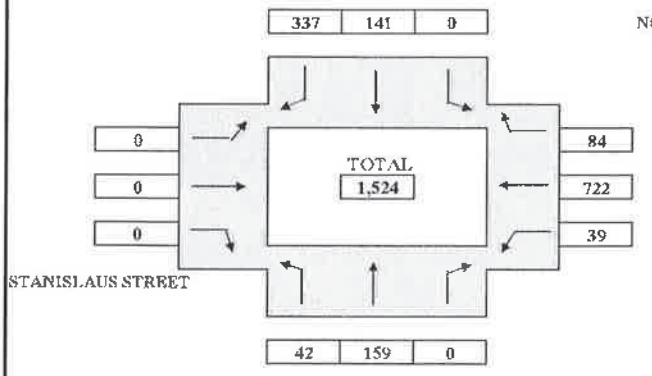
Telephone: (510)232-1271 Fax: (510)232-1272

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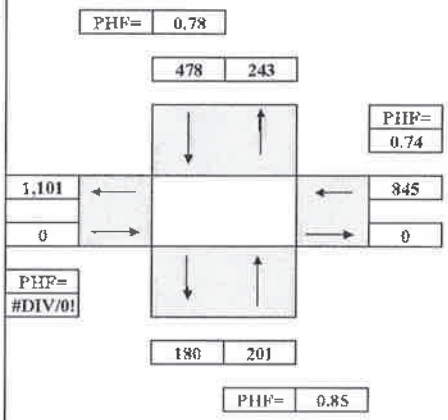
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	E STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	STANISLAUS STREET	CITY:	FRESNO	FILE:	2911072-28PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	10	45	0	0	30	92	0	0	0	7	145	27	*356*
4:15 PM	---	4:30 PM	19	86	0	0	66	138	0	0	0	11	265	48	*633*
4:30 PM	---	4:45 PM	36	128	0	0	107	250	0	0	0	25	432	69	*1,047*
4:45 PM	---	5:00 PM	42	169	0	0	140	308	0	0	0	39	581	82	*1,361*
5:00 PM	---	5:15 PM	57	212	0	0	179	414	0	0	0	44	835	110	*1,851*
5:15 PM	---	5:30 PM	61	245	0	0	207	475	0	0	0	50	987	132	*2,157*
5:30 PM	---	5:45 PM	67	277	0	0	232	530	0	0	0	53	1,098	151	*2,408*
5:45 PM	---	6:00 PM	71	301	0	0	254	571	0	0	0	58	1,189	164	*2,608*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	10	45	0	0	30	92	0	0	0	7	145	27	*356*
4:15 PM	---	4:30 PM	9	41	0	0	36	46	0	0	0	4	120	21	*277*
4:30 PM	---	4:45 PM	17	42	0	0	41	112	0	0	0	14	167	21	*414*
4:45 PM	---	5:00 PM	6	41	0	0	33	58	0	0	0	14	149	13	*314*
5:00 PM	---	5:15 PM	15	43	0	0	39	106	0	0	0	5	254	28	*490*
5:15 PM	---	5:30 PM	4	33	0	0	28	61	0	0	0	6	152	22	*306*
5:30 PM	---	5:45 PM	6	32	0	0	25	55	0	0	0	3	111	19	*251*
5:45 PM	---	6:00 PM	4	24	0	0	22	41	0	0	0	5	91	13	*200*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	42	169	0	0	140	308	0	0	0	39	581	82	*1,361*
4:15 PM	---	5:15 PM	47	167	0	0	149	322	0	0	0	37	690	83	*1,495*
4:30 PM	---	5:30 PM	42	159	0	0	141	337	0	0	0	39	722	84	*1,524*
4:45 PM	---	5:45 PM	31	149	0	0	125	280	0	0	0	28	666	82	*1,361*
5:00 PM	---	6:00 PM	29	132	0	0	114	263	0	0	0	19	608	82	*1,247*

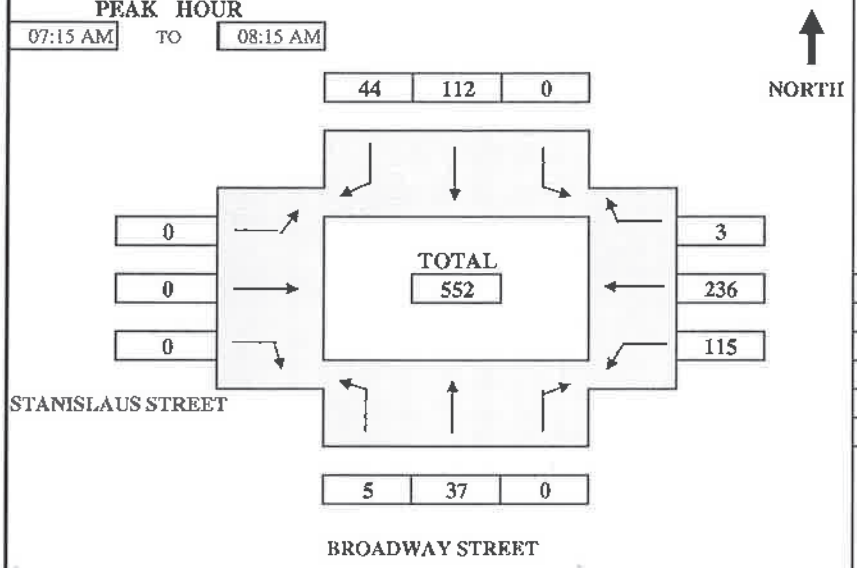
Telephone: (510)232-1271 Fax: (510)232-1272

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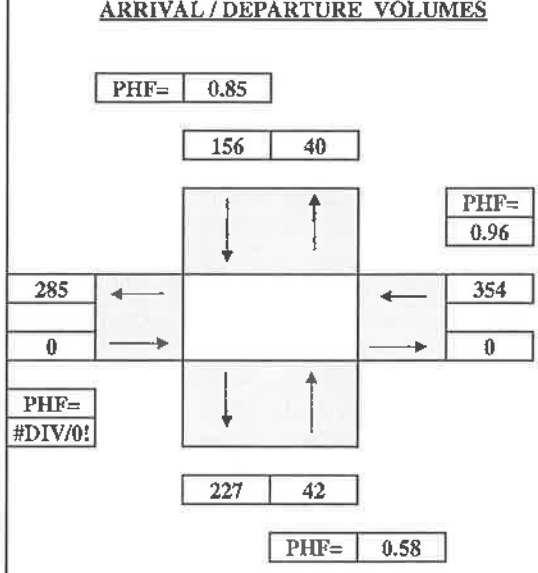
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	STANISLAUS STREET	CITY:	FRESNO	FILE:	2911072-2AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	1	7	0	0	19	10	0	0	0	11	42	0	*90*
7:15 AM	---	7:30 AM	1	14	0	0	50	22	0	0	0	53	91	1	*232*
7:30 AM	---	7:45 AM	1	21	0	0	74	31	0	0	0	78	153	2	*360*
7:45 AM	---	8:00 AM	5	35	0	0	98	41	0	0	0	106	216	2	*503*
8:00 AM	---	8:15 AM	6	44	0	0	131	54	0	0	0	126	278	3	*642*
8:15 AM	---	8:30 AM	6	53	0	0	150	72	0	0	0	144	343	7	*775*
8:30 AM	---	8:45 AM	6	62	0	0	168	85	0	0	0	155	401	11	*888*
8:45 AM	---	9:00 AM	7	67	0	0	185	93	0	0	0	159	466	14	*991*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	1	7	0	0	19	10	0	0	0	11	42	0	*90*
7:15 AM	---	7:30 AM	0	7	0	0	31	12	0	0	0	42	49	1	*142*
7:30 AM	---	7:45 AM	0	7	0	0	24	9	0	0	0	25	62	1	*128*
7:45 AM	---	8:00 AM	4	14	0	0	24	10	0	0	0	28	63	0	*143*
8:00 AM	---	8:15 AM	1	9	0	0	33	13	0	0	0	20	62	1	*139*
8:15 AM	---	8:30 AM	0	9	0	0	19	18	0	0	0	18	65	4	*133*
8:30 AM	---	8:45 AM	0	9	0	0	18	13	0	0	0	11	58	4	*113*
8:45 AM	---	9:00 AM	1	5	0	0	17	8	0	0	0	4	65	3	*103*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	5	35	0	0	98	41	0	0	0	106	216	2	*503*
7:15 AM	---	8:15 AM	5	37	0	0	112	44	0	0	0	115	236	3	*552*
7:30 AM	---	8:30 AM	5	39	0	0	100	50	0	0	0	91	252	6	*543*
7:45 AM	---	8:45 AM	5	41	0	0	94	54	0	0	0	77	248	9	*528*
8:00 AM	---	9:00 AM	2	32	0	0	87	52	0	0	0	53	250	12	*488*

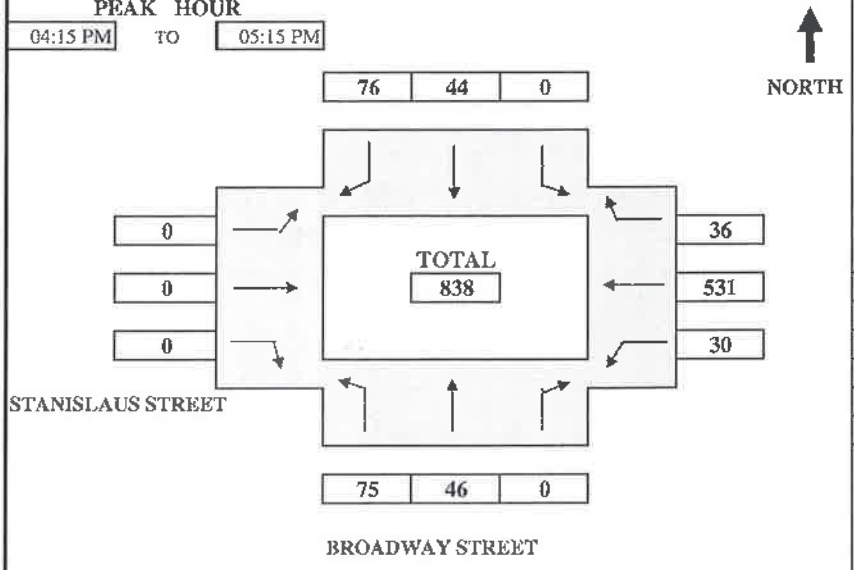
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

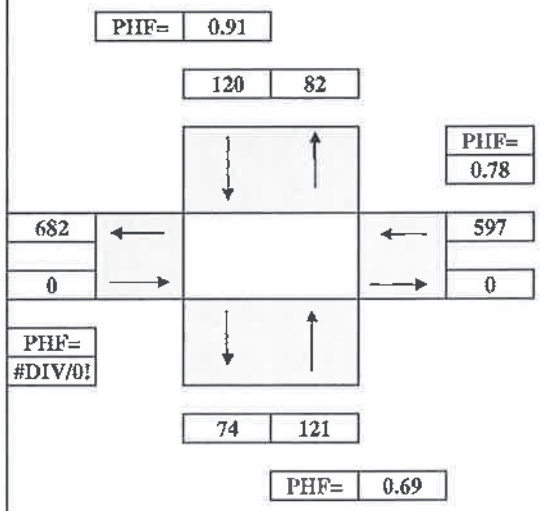
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	STANISLAUS STREET	CITY:	FRESNO	FILE:	2911072-2PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	24	10	0	0	10	11	0	0	0	12	97	5	*169*
4:15 PM	---	4:30 PM	43	22	0	0	22	26	0	0	0	26	190	14	*343*
4:30 PM	---	4:45 PM	59	30	0	0	33	48	0	0	0	33	315	21	*539*
4:45 PM	---	5:00 PM	71	40	0	0	46	67	0	0	0	38	452	29	*743*
5:00 PM	---	5:15 PM	99	56	0	0	54	87	0	0	0	42	628	41	*1,007*
5:15 PM	---	5:30 PM	109	69	0	0	57	101	0	0	0	42	750	49	*1,177*
5:30 PM	---	5:45 PM	119	76	0	0	61	109	0	0	0	42	841	51	*1,299*
5:45 PM	---	6:00 PM	123	82	0	0	64	117	0	0	0	43	922	53	*1,404*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	24	10	0	0	10	11	0	0	0	12	97	5	*169*
4:15 PM	---	4:30 PM	19	12	0	0	12	15	0	0	0	14	93	9	*174*
4:30 PM	---	4:45 PM	16	8	0	0	11	22	0	0	0	7	125	7	*196*
4:45 PM	---	5:00 PM	12	10	0	0	13	19	0	0	0	5	137	8	*204*
5:00 PM	---	5:15 PM	28	16	0	0	8	20	0	0	0	4	176	12	*264*
5:15 PM	---	5:30 PM	10	13	0	0	3	14	0	0	0	0	122	8	*170*
5:30 PM	---	5:45 PM	10	7	0	0	4	8	0	0	0	0	91	2	*122*
5:45 PM	---	6:00 PM	4	6	0	0	3	8	0	0	0	1	81	2	*105*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	71	40	0	0	46	67	0	0	0	38	452	29	*743*
4:15 PM	---	5:15 PM	75	46	0	0	44	76	0	0	0	30	531	36	*838*
4:30 PM	---	5:30 PM	66	47	0	0	35	75	0	0	0	16	560	35	*834*
4:45 PM	---	5:45 PM	60	46	0	0	28	61	0	0	0	9	526	30	*760*
5:00 PM	---	6:00 PM	52	42	0	0	18	50	0	0	0	5	470	24	*661*

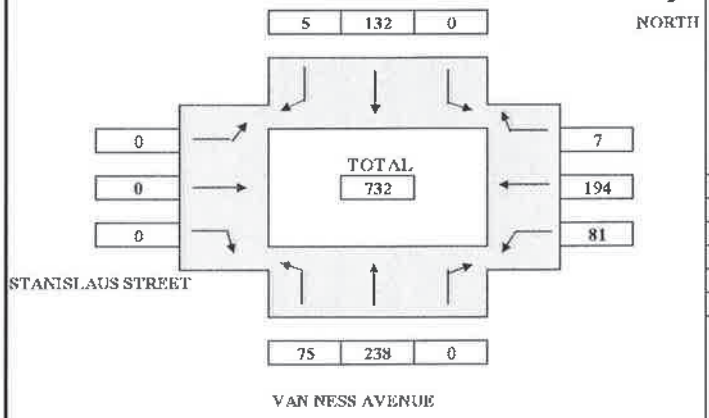
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

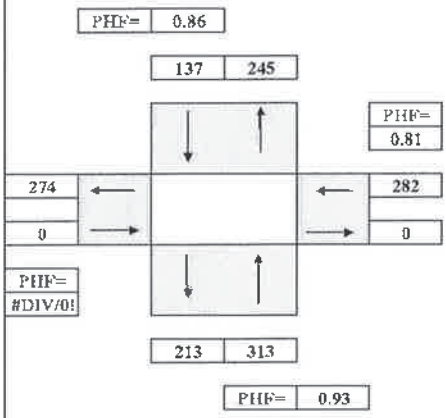
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	STANISLAUS STREET	CITY:	FRESNO	FILE:	2911072-13AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA														
7:00 AM	7:15 AM	11	23	0	0	10	0	0	0	0	1	34	1	*80*
7:15 AM	7:30 AM	28	53	0	0	31	2	0	0	0	9	68	4	*195*
7:30 AM	7:45 AM	45	109	0	0	50	2	0	0	0	25	118	5	*354*
7:45 AM	8:00 AM	61	177	0	0	89	3	0	0	0	47	179	9	*565*
8:00 AM	8:15 AM	85	222	0	0	118	4	0	0	0	73	224	11	*737*
8:15 AM	8:30 AM	101	285	0	0	145	5	0	0	0	89	275	12	*912*
8:30 AM	8:45 AM	120	347	0	0	182	7	0	0	0	106	312	12	*1,086*
8:45 AM	9:00 AM	144	391	0	0	207	7	0	0	0	114	352	14	*1,229*
TOTAL BY PERIOD														
7:00 AM	7:15 AM	11	23	0	0	10	0	0	0	0	1	34	1	*80*
7:15 AM	7:30 AM	17	30	0	0	21	2	0	0	0	8	34	3	*115*
7:30 AM	7:45 AM	17	56	0	0	19	0	0	0	0	16	50	1	*159*
7:45 AM	8:00 AM	16	68	0	0	39	1	0	0	0	22	61	4	*211*
8:00 AM	8:15 AM	24	45	0	0	29	1	0	0	0	26	45	2	*172*
8:15 AM	8:30 AM	16	63	0	0	27	1	0	0	0	16	51	1	*175*
8:30 AM	8:45 AM	19	62	0	0	37	2	0	0	0	17	37	0	*174*
8:45 AM	9:00 AM	24	44	0	0	25	0	0	0	0	8	40	2	*143*
HOURLY TOTALS														
7:00 AM	8:00 AM	61	177	0	0	89	3	0	0	0	47	179	9	*565*
7:15 AM	8:15 AM	74	199	0	0	108	4	0	0	0	72	190	10	*657*
7:30 AM	8:30 AM	73	232	0	0	114	3	0	0	0	80	207	8	*717*
7:45 AM	8:45 AM	75	238	0	0	132	5	0	0	0	81	194	7	*732*
8:00 AM	9:00 AM	83	214	0	0	118	4	0	0	0	67	173	5	*664*

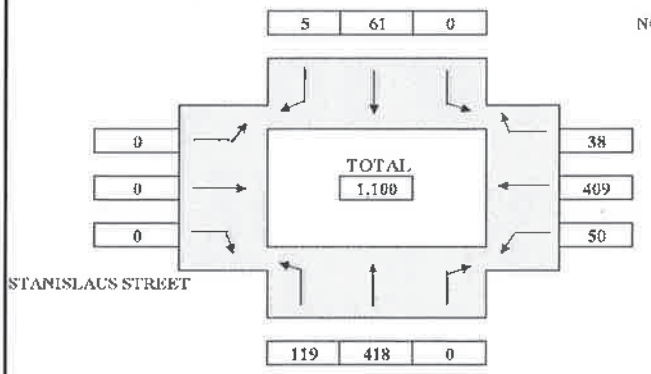
Telephone: (510)232-1271 Fax: (510)232-1272

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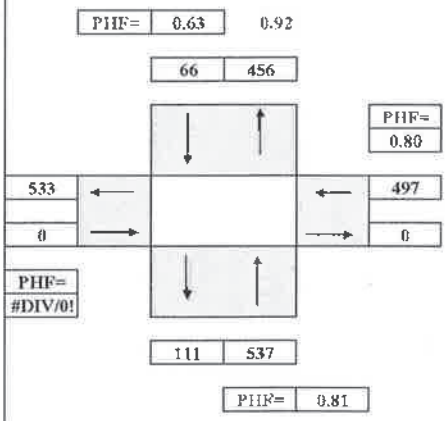
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HIST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	STANISLAUS STREET	CITY:	FRESNO	FILE:	2911072-13PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	35	103	0	0	23	3	0	0	0	10	80	12	*266*
4:15 PM	---	4:30 PM	53	195	0	0	38	3	0	0	0	27	156	20	*492*
4:30 PM	---	4:45 PM	74	302	0	0	54	5	0	0	0	39	253	29	*756*
4:45 PM	---	5:00 PM	115	395	0	0	69	7	0	0	0	55	350	38	*1,029*
5:00 PM	---	5:15 PM	154	521	0	0	84	8	0	0	0	60	489	50	*1,366*
5:15 PM	---	5:30 PM	178	608	0	0	97	12	0	0	0	69	573	54	*1,591*
5:30 PM	---	5:45 PM	204	711	0	0	110	14	0	0	0	77	644	68	*1,828*
5:45 PM	---	6:00 PM	222	759	0	0	123	15	0	0	0	80	698	74	*1,971*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	35	103	0	0	23	3	0	0	0	10	80	12	*266*
4:15 PM	---	4:30 PM	18	92	0	0	15	0	0	0	0	17	76	8	*226*
4:30 PM	---	4:45 PM	21	107	0	0	16	2	0	0	0	12	97	9	*264*
4:45 PM	---	5:00 PM	41	93	0	0	15	2	0	0	0	16	97	9	*273*
5:00 PM	---	5:15 PM	39	126	0	0	15	1	0	0	0	5	139	12	*337*
5:15 PM	---	5:30 PM	24	87	0	0	13	4	0	0	0	9	84	4	*225*
5:30 PM	---	5:45 PM	26	103	0	0	13	2	0	0	0	8	71	14	*237*
5:45 PM	---	6:00 PM	18	48	0	0	13	1	0	0	0	3	54	6	*143*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	115	395	0	0	69	7	0	0	0	55	350	38	*1,029*
4:15 PM	---	5:15 PM	119	418	0	0	61	5	0	0	0	50	409	38	*1,100*
4:30 PM	---	5:30 PM	125	413	0	0	59	9	0	0	0	42	417	34	*1,099*
4:45 PM	---	5:45 PM	130	409	0	0	56	9	0	0	0	38	391	39	*1,072*
5:00 PM	---	6:00 PM	107	364	0	0	54	8	0	0	0	25	348	36	*942*

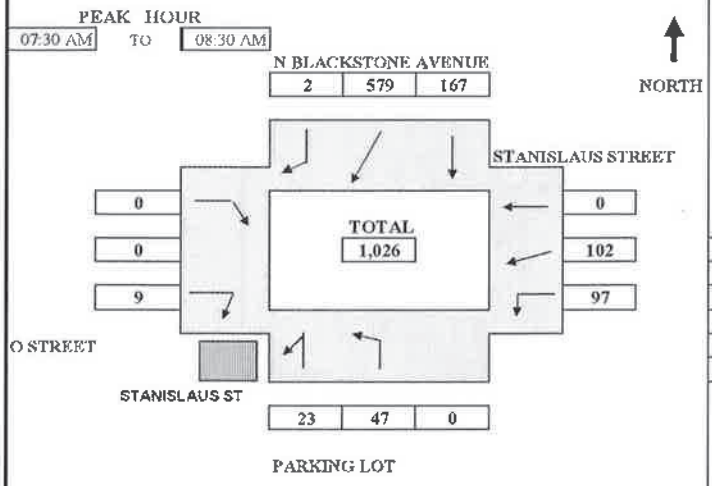
Telephone: (510)232-1271 Fax: (510)232-1272

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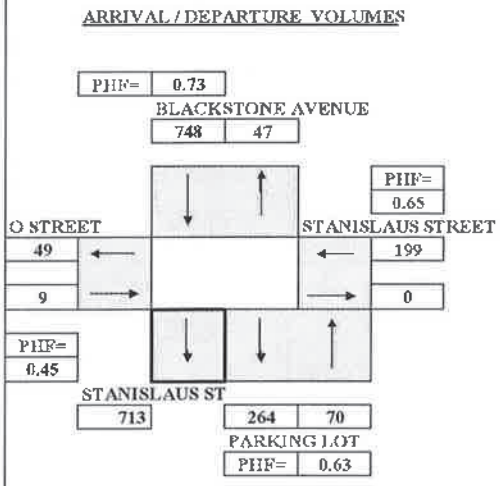
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	N BLACKSTONE AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	STANISLAUS STREET	CITY:	FRESNO	FILE:	2911072-27AM

PEAK HOUR: 07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



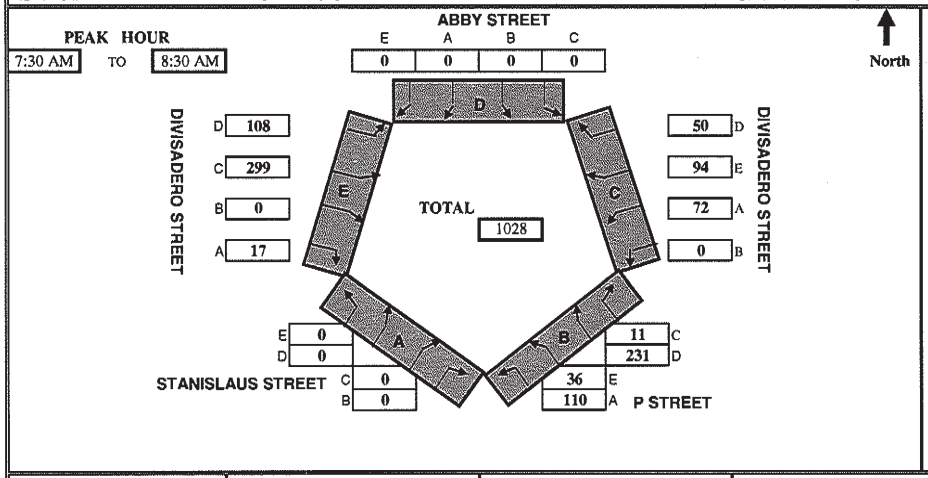
TIME PERIOD From		To	NB (PARKING LOT) STAN ST	NB (PARKING LOT) O ST	NB (PARKING LOT) Right	SB (BLACKSTONE AV) PARK	SB (BLACKSTONE AV) STAN ST	SB (BLACKSTONE AV) O ST	EB (O STREET) PARK	EB (O STREET)	EB (O STREET) STAN ST	WB (STANISLAUS ST) PARK	WB (STANISLAUS ST) STAN ST	WB (STANISLAUS ST) O ST	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	3	0	0	3	79	0	2	0	1	4	12	0	*104*
7:15 AM	---	7:30 AM	5	3	0	13	199	0	2	0	1	9	29	0	*261*
7:30 AM	---	7:45 AM	10	11	0	67	348	1	2	0	2	33	47	0	*521*
7:45 AM	---	8:00 AM	16	21	0	142	528	1	2	0	5	86	70	0	*871*
8:00 AM	---	8:15 AM	21	44	0	166	643	2	2	0	10	103	104	0	*1,095*
8:15 AM	---	8:30 AM	28	50	0	180	778	2	2	0	10	106	131	0	*1,287*
8:30 AM	---	8:45 AM	32	54	0	184	896	2	2	0	11	107	143	0	*1,431*
8:45 AM	---	9:00 AM	33	55	0	191	976	2	2	0	11	111	164	0	*1,545*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	3	0	0	3	79	0	2	0	1	4	12	0	*104*
7:15 AM	---	7:30 AM	2	3	0	10	120	0	0	0	0	5	17	0	*157*
7:30 AM	---	7:45 AM	5	8	0	54	149	1	0	0	1	24	18	0	*260*
7:45 AM	---	8:00 AM	6	10	0	75	180	0	0	0	3	53	23	0	*350*
8:00 AM	---	8:15 AM	5	23	0	24	115	1	0	0	5	17	34	0	*224*
8:15 AM	---	8:30 AM	7	6	0	14	135	0	0	0	0	3	27	0	*192*
8:30 AM	---	8:45 AM	4	4	0	4	118	0	0	0	1	1	12	0	*144*
8:45 AM	---	9:00 AM	1	1	0	7	80	0	0	0	0	4	21	0	*114*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	16	21	0	142	528	1	2	0	5	86	70	0	*871*
7:15 AM	---	8:15 AM	18	44	0	163	564	2	0	0	9	99	92	0	*991*
7:30 AM	---	8:30 AM	23	47	0	167	579	2	0	0	9	97	102	0	*1,026*
7:45 AM	---	8:45 AM	22	43	0	117	548	1	0	0	9	74	96	0	*910*
8:00 AM	---	9:00 AM	17	34	0	49	448	1	0	0	6	25	94	0	*674*

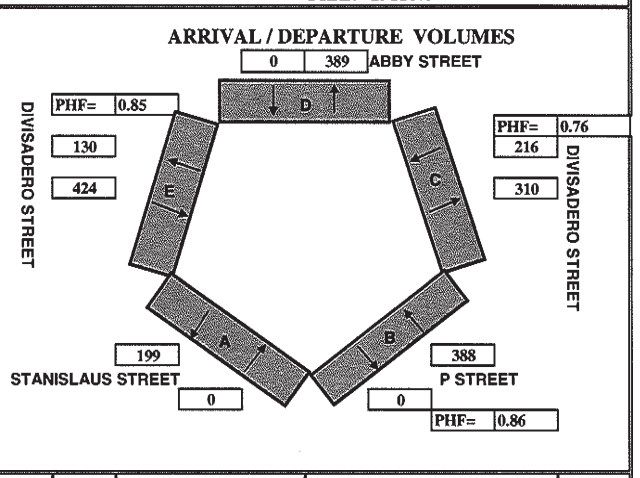
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJE	HST PROJECT	SURVE	11/05/09	DAY: THURSDAY
N-S AP	N ABBY STREET	SURVE	7:00 AM TO 9:00 AM	
E-W AI	DIVISADERO STREET	CITY: FRESNO		FILE: 291107





TIMI From		To	A (ST E	D	C	B	A	E	D	C	C (DIVI B	A	E	D	D C	B	A	E	E (DIV D	C	B	A	TOTAL
SURVEY DATA																							
7:00 AM	---	7:15 AM	0	0	0	0	9	3	27	1	0	6	10	7	0	0	0	0	7	48	0	1	*118*
7:15 AM	---	7:30 AM	0	0	0	0	18	5	73	2	0	16	20	20	0	0	0	0	16	84	0	4	*254*
7:30 AM	---	7:45 AM	0	0	0	0	37	14	140	6	0	35	47	31	0	0	0	0	37	154	0	8	*501*
7:45 AM	---	8:00 AM	0	0	0	0	79	25	198	8	0	61	74	49	0	0	0	0	68	236	0	16	*798*
8:00 AM	---	8:15 AM	0	0	0	0	112	33	255	12	0	76	95	64	0	0	0	0	100	325	0	19	*1,072*
8:15 AM	---	8:30 AM	0	0	0	0	128	41	304	13	0	88	114	70	0	0	0	0	124	383	0	21	*1,265*
8:30 AM	---	8:45 AM	0	0	0	0	136	47	375	15	0	93	128	98	0	0	0	0	150	431	0	21	*1,473*
8:45 AM	---	9:00 AM	0	0	0	0	150	59	438	16	0	103	149	117	0	0	0	0	173	483	0	22	*1,688*
TOTAL BY PERIOD																							
7:00 AM	---	7:15 AM	0	0	0	0	9	3	27	1	0	6	10	7	0	0	0	0	7	48	0	1	*118*
7:15 AM	---	7:30 AM	0	0	0	0	9	2	46	1	0	10	10	13	0	0	0	0	9	36	0	3	*136*
7:30 AM	---	7:45 AM	0	0	0	0	19	9	67	4	0	19	27	11	0	0	0	0	21	70	0	4	*247*
7:45 AM	---	8:00 AM	0	0	0	0	42	11	58	2	0	26	27	18	0	0	0	0	31	82	0	8	*297*
8:00 AM	---	8:15 AM	0	0	0	0	33	8	57	4	0	15	21	15	0	0	0	0	32	89	0	3	*274*
8:15 AM	---	8:30 AM	0	0	0	0	16	8	49	1	0	12	19	6	0	0	0	0	24	58	0	2	*193*
8:30 AM	---	8:45 AM	0	0	0	0	8	6	71	2	0	5	14	28	0	0	0	0	26	48	0	0	*208*
8:45 AM	---	9:00 AM	0	0	0	0	14	12	63	1	0	10	21	19	0	0	0	0	23	52	0	1	*215*
HOURLY TOTALS																							
7:00 AM	---	8:00 AM	0	0	0	0	79	25	198	8	0	61	74	49	0	0	0	0	68	236	0	16	*798*
7:15 AM	---	8:15 AM	0	0	0	0	103	30	228	11	0	70	85	57	0	0	0	0	93	277	0	18	*954*
7:30 AM	---	8:30 AM	0	0	0	0	110	36	231	11	0	72	94	50	0	0	0	0	108	299	0	17	*1,011*
7:45 AM	---	8:45 AM	0	0	0	0	99	33	235	9	0	58	81	67	0	0	0	0	113	277	0	13	*972*
8:00 AM	---	9:00 AM	0	0	0	0	71	34	240	8	0	42	75	68	0	0	0	0	105	247	0	6	*890*

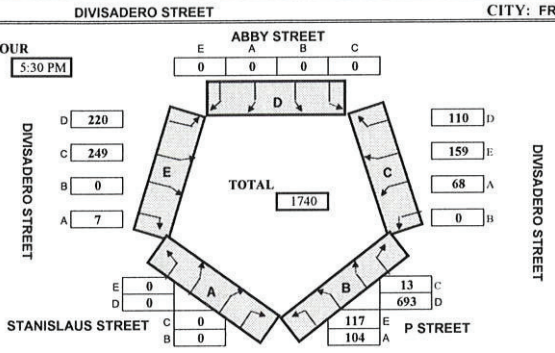
Telrphone: (510) 232-1271 *Fax: (510)232-1272*

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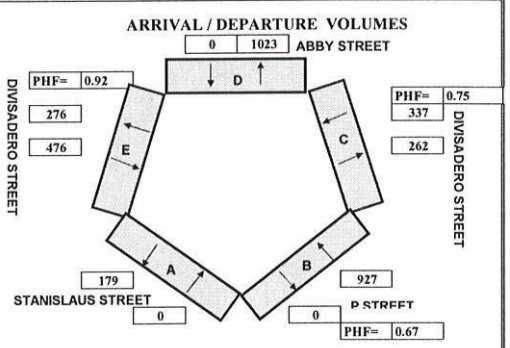
INTERSECTION TURNING MOVEMENT SUMMARY

PROJE	HST PROJECT	SURVI	11/05/09	DAY: THURSDAY	
N-S AP	N ABBY STREET	SURVI	4:00 PM	TO 6:00 PM	
E-W A	DIVISADERO STREET	CITY: FRESNO		FILE: 291107	

PEAK HOUR 4:30 PM TO 5:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIMI From		To	A (ST E	D	C	B	A	E	D	C	C (DIVI B	A	E	D	D C	B	A	E	E (DIV D	C	B	A	TOTAL
SURVEY DATA																							
4:00 PM	---	4:15 PM	0	0	0	0	14	23	136	1	0	15	29	36	0	0	0	0	39	66	0	0	*359*
4:15 PM	---	4:30 PM	0	0	0	0	24	39	234	4	0	21	61	61	0	0	0	0	73	100	0	2	*617*
4:30 PM	---	4:45 PM	0	0	0	0	43	72	403	7	0	33	97	86	0	0	0	0	131	168	0	4	*1,040*
4:45 PM	---	5:00 PM	0	0	0	0	66	98	529	10	0	41	134	113	0	0	0	0	171	232	0	5	*1,394*
5:00 PM	---	5:15 PM	0	0	0	0	102	137	796	13	0	77	176	147	0	0	0	0	237	294	0	6	*1,979*
5:15 PM	---	5:30 PM	0	0	0	0	128	156	927	17	0	89	220	171	0	0	0	0	293	349	0	9	*2,350*
5:30 PM	---	5:45 PM	0	0	0	0	152	176	1,025	18	0	107	256	197	0	0	0	0	337	422	0	9	*2,690*
5:45 PM	---	6:00 PM	0	0	0	0	171	188	1,089	20	0	112	285	230	0	0	0	0	360	473	0	11	*2,928*
TOTAL BY PERIOD																							
4:00 PM	---	4:15 PM	0	0	0	0	14	23	136	1	0	15	29	36	0	0	0	0	39	66	0	0	*359*
4:15 PM	---	4:30 PM	0	0	0	0	10	16	98	3	0	6	32	25	0	0	0	0	34	34	0	2	*258*
4:30 PM	---	4:45 PM	0	0	0	0	19	33	169	3	0	12	36	25	0	0	0	0	58	68	0	2	*423*
4:45 PM	---	5:00 PM	0	0	0	0	23	26	126	3	0	8	37	27	0	0	0	0	40	64	0	1	*354*
5:00 PM	---	5:15 PM	0	0	0	0	36	39	267	3	0	36	42	34	0	0	0	0	66	62	0	1	*585*
5:15 PM	---	5:30 PM	0	0	0	0	26	19	131	4	0	12	44	24	0	0	0	0	56	55	0	3	*371*
5:30 PM	---	5:45 PM	0	0	0	0	24	20	98	1	0	18	36	26	0	0	0	0	44	73	0	0	*340*
5:45 PM	---	6:00 PM	0	0	0	0	19	12	64	2	0	5	29	33	0	0	0	0	23	51	0	2	*238*
HOURLY TOTALS																							
4:00 PM	---	5:00 PM	0	0	0	0	66	98	529	10	0	41	134	113	0	0	0	0	171	232	0	5	*1,394*
4:15 PM	---	5:15 PM	0	0	0	0	88	114	660	12	0	62	147	111	0	0	0	0	198	228	0	6	*1,620*
4:30 PM	---	5:30 PM	0	0	0	0	104	117	693	13	0	68	159	110	0	0	0	0	220	249	0	7	*1,733*
4:45 PM	---	5:45 PM	0	0	0	0	109	104	622	11	0	74	159	111	0	0	0	0	206	254	0	5	*1,650*
5:00 PM	---	6:00 PM	0	0	0	0	105	90	560	10	0	71	151	117	0	0	0	0	189	241	0	6	*1,534*

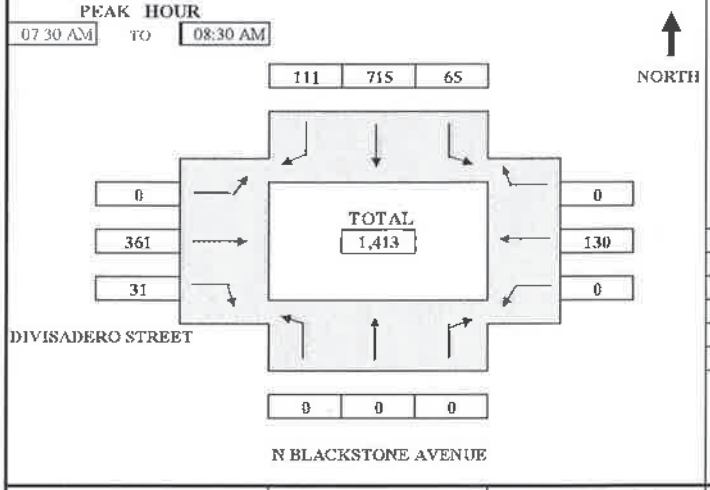
Telrphone: (510) 232-1271 *Fax: (510)232-1272*

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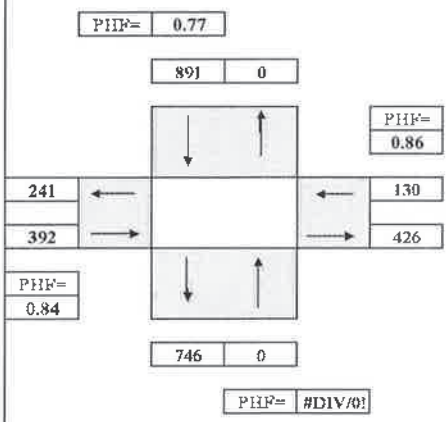
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	N BLACKSTONE AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	DIVISADERO STREET	CITY: FRESNO		FILE:	2911072-26AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	20	85	17	0	36	1	0	13	0	*172*
7:15 AM	---	7:30 AM	0	0	0	38	213	40	0	68	3	0	27	0	*389*
7:30 AM	---	7:45 AM	0	0	0	53	408	76	0	148	12	0	63	0	*760*
7:45 AM	---	8:00 AM	0	0	0	72	643	110	0	250	27	0	101	0	*1,203*
8:00 AM	---	8:15 AM	0	0	0	92	784	135	0	354	29	0	130	0	*1,524*
8:15 AM	---	8:30 AM	0	0	0	103	928	151	0	429	34	0	157	0	*1,802*
8:30 AM	---	8:45 AM	0	0	0	117	1,051	180	0	489	34	0	178	0	*2,049*
8:45 AM	---	9:00 AM	0	0	0	136	1,134	201	0	547	39	0	211	0	*2,268*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	20	85	17	0	36	1	0	13	0	*172*
7:15 AM	---	7:30 AM	0	0	0	18	128	23	0	32	2	0	14	0	*217*
7:30 AM	---	7:45 AM	0	0	0	15	195	36	0	80	9	0	36	0	*371*
7:45 AM	---	8:00 AM	0	0	0	19	235	34	0	102	15	0	38	0	*443*
8:00 AM	---	8:15 AM	0	0	0	20	141	25	0	104	2	0	29	0	*321*
8:15 AM	---	8:30 AM	0	0	0	11	144	16	0	75	5	0	27	0	*278*
8:30 AM	---	8:45 AM	0	0	0	14	123	29	0	60	0	0	21	0	*247*
8:45 AM	---	9:00 AM	0	0	0	19	83	21	0	58	5	0	33	0	*219*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	72	643	110	0	250	27	0	101	0	*1,203*
7:15 AM	---	8:15 AM	0	0	0	72	699	118	0	318	28	0	117	0	*1,352*
7:30 AM	---	8:30 AM	0	0	0	65	715	111	0	361	31	0	130	0	*1,413*
7:45 AM	---	8:45 AM	0	0	0	64	643	104	0	341	22	0	115	0	*1,289*
8:00 AM	---	9:00 AM	0	0	0	64	491	91	0	297	12	0	110	0	*1,065*

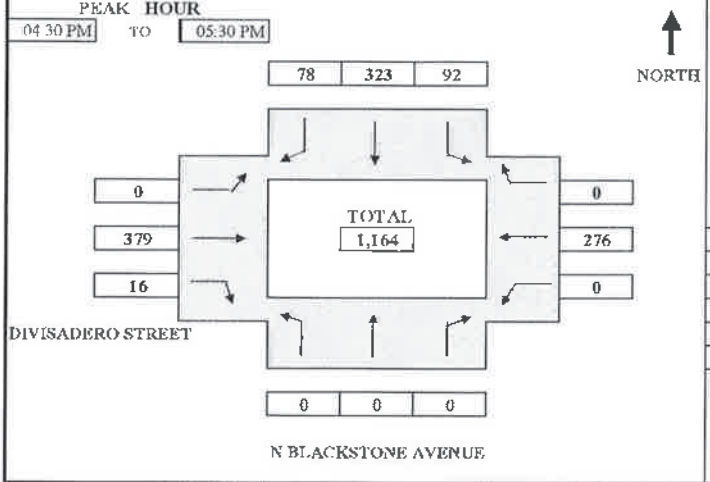
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

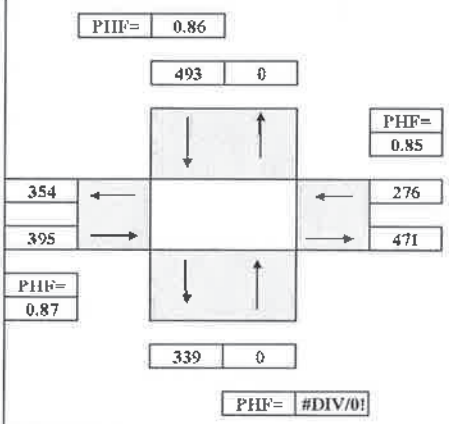
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/5/2009	DAY:	THURSDAY
N-S APPROACH:	N BLACKSTONE AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-26PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	23	73	16	0	82	1	0	52	0	*247*
4:15 PM	---	4:30 PM	0	0	0	39	134	30	0	136	2	0	103	0	*444*
4:30 PM	---	4:45 PM	0	0	0	61	189	51	0	239	4	0	172	0	*716*
4:45 PM	---	5:00 PM	0	0	0	91	284	70	0	314	7	0	235	0	*1,001*
5:00 PM	---	5:15 PM	0	0	0	111	361	92	0	421	14	0	316	0	*1,315*
5:15 PM	---	5:30 PM	0	0	0	131	457	108	0	515	18	0	379	0	*1,608*
5:30 PM	---	5:45 PM	0	0	0	154	516	118	0	609	21	0	435	0	*1,853*
5:45 PM	---	6:00 PM	0	0	0	178	575	138	0	661	21	0	477	0	*2,050*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	23	73	16	0	82	1	0	52	0	*247*
4:15 PM	---	4:30 PM	0	0	0	16	61	14	0	54	1	0	51	0	*197*
4:30 PM	---	4:45 PM	0	0	0	22	55	21	0	103	2	0	69	0	*272*
4:45 PM	---	5:00 PM	0	0	0	30	95	19	0	75	3	0	63	0	*285*
5:00 PM	---	5:15 PM	0	0	0	20	77	22	0	107	7	0	81	0	*314*
5:15 PM	---	5:30 PM	0	0	0	20	96	16	0	94	4	0	63	0	*293*
5:30 PM	---	5:45 PM	0	0	0	23	59	10	0	94	3	0	56	0	*245*
5:45 PM	---	6:00 PM	0	0	0	24	59	20	0	52	0	0	42	0	*197*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	91	284	70	0	314	7	0	235	0	*1,001*
4:15 PM	---	5:15 PM	0	0	0	88	288	76	0	339	13	0	264	0	*1,068*
4:30 PM	---	5:30 PM	0	0	0	92	323	78	0	379	16	0	276	0	*1,164*
4:45 PM	---	5:45 PM	0	0	0	93	327	67	0	370	17	0	263	0	*1,137*
5:00 PM	---	6:00 PM	0	0	0	87	291	68	0	347	14	0	242	0	*1,049*

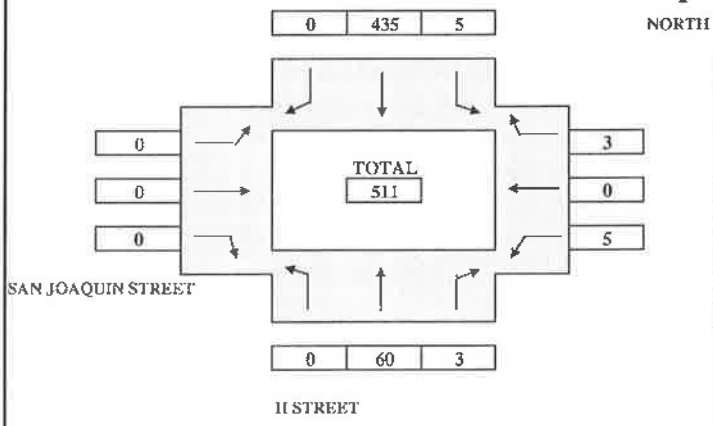
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

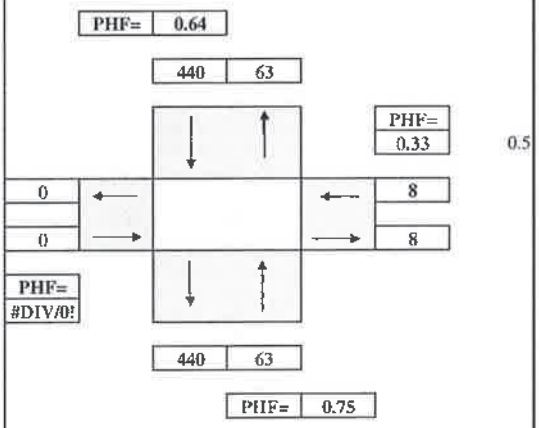
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	H STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	SAN JOAQUIN STREET	CITY:	FRESNO	FILE:	2911072-60AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	4	0	0	45	0	0	0	0	2	0	1	*52*
7:15 AM	---	7:30 AM	0	11	0	0	119	0	0	0	0	5	0	2	*137*
7:30 AM	---	7:45 AM	0	29	1	2	214	0	0	0	0	6	0	2	*254*
7:45 AM	---	8:00 AM	0	42	2	2	385	0	0	0	0	7	0	3	*441*
8:00 AM	---	8:15 AM	0	62	3	4	471	0	0	0	0	8	0	3	*551*
8:15 AM	---	8:30 AM	0	71	3	5	554	0	0	0	0	10	0	5	*648*
8:30 AM	---	8:45 AM	0	81	3	6	610	0	0	0	0	11	0	10	*721*
8:45 AM	---	9:00 AM	0	101	4	6	650	0	0	0	0	12	0	13	*786*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	4	0	0	45	0	0	0	0	2	0	1	*52*
7:15 AM	---	7:30 AM	0	7	0	0	74	0	0	0	0	3	0	1	*85*
7:30 AM	---	7:45 AM	0	18	1	2	95	0	0	0	0	1	0	0	*117*
7:45 AM	---	8:00 AM	0	13	1	0	171	0	0	0	0	1	0	1	*187*
8:00 AM	---	8:15 AM	0	20	1	2	86	0	0	0	0	1	0	0	*110*
8:15 AM	---	8:30 AM	0	9	0	1	83	0	0	0	0	2	0	2	*97*
8:30 AM	---	8:45 AM	0	10	0	1	56	0	0	0	0	1	0	5	*73*
8:45 AM	---	9:00 AM	0	20	1	0	40	0	0	0	0	1	0	3	*65*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	42	2	2	385	0	0	0	0	7	0	3	*441*
7:15 AM	---	8:15 AM	0	58	3	4	426	0	0	0	0	6	0	2	*499*
7:30 AM	---	8:30 AM	0	60	3	5	435	0	0	0	0	5	0	3	*511*
7:45 AM	---	8:45 AM	0	52	2	4	396	0	0	0	0	5	0	8	*467*
8:00 AM	---	9:00 AM	0	59	2	4	265	0	0	0	0	5	0	10	*345*

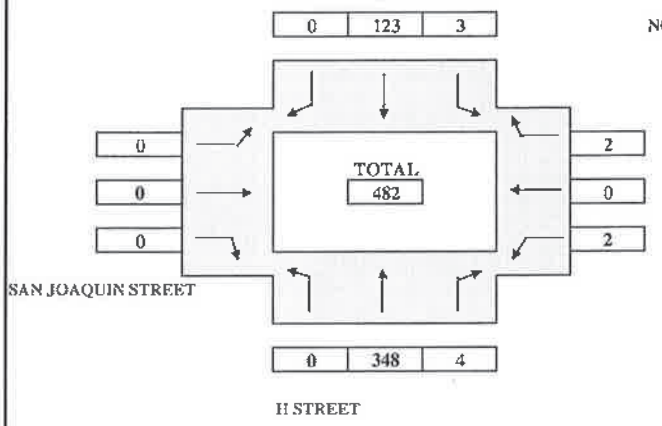
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

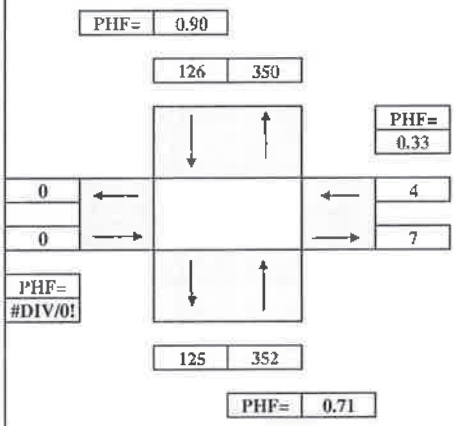
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	H STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	SAN JOAQUIN STREET	CITY:	FRESNO	FILE:	2911072-60PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	59	0	3	24	0	0	0	0	0	0	1	*87*
4:15 PM	---	4:30 PM	0	119	0	3	56	0	0	0	0	1	0	3	*182*
4:30 PM	---	4:45 PM	0	203	0	3	89	0	0	0	0	1	0	3	*299*
4:45 PM	---	5:00 PM	0	286	1	4	123	0	0	0	0	1	0	3	*418*
5:00 PM	---	5:15 PM	0	407	4	6	147	0	0	0	0	2	0	3	*569*
5:15 PM	---	5:30 PM	0	470	5	6	167	0	0	0	0	3	0	3	*654*
5:30 PM	---	5:45 PM	0	491	8	6	186	0	0	0	0	3	0	3	*697*
5:45 PM	---	6:00 PM	0	529	9	7	195	0	0	0	0	3	0	3	*746*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	59	0	3	24	0	0	0	0	0	0	1	*87*
4:15 PM	---	4:30 PM	0	60	0	0	32	0	0	0	0	1	0	2	*95*
4:30 PM	---	4:45 PM	0	84	0	0	33	0	0	0	0	0	0	0	*117*
4:45 PM	---	5:00 PM	0	83	1	1	34	0	0	0	0	0	0	0	*119*
5:00 PM	---	5:15 PM	0	121	3	2	24	0	0	0	0	1	0	0	*151*
5:15 PM	---	5:30 PM	0	63	1	0	20	0	0	0	0	1	0	0	*85*
5:30 PM	---	5:45 PM	0	21	3	0	19	0	0	0	0	0	0	0	*43*
5:45 PM	---	6:00 PM	0	38	1	1	9	0	0	0	0	0	0	0	*49*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	286	1	4	123	0	0	0	0	1	0	3	*418*
4:15 PM	---	5:15 PM	0	348	4	3	123	0	0	0	0	2	0	2	*482*
4:30 PM	---	5:30 PM	0	351	5	3	111	0	0	0	0	2	0	0	*472*
4:45 PM	---	5:45 PM	0	288	8	3	97	0	0	0	0	2	0	0	*398*
5:00 PM	---	6:00 PM	0	243	8	3	72	0	0	0	0	2	0	0	*328*

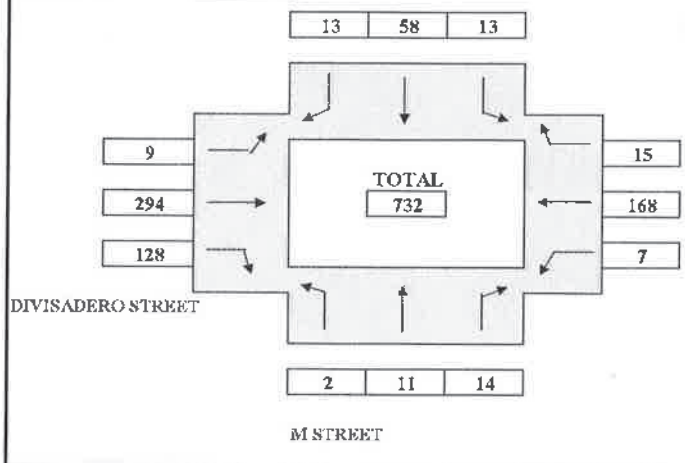
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

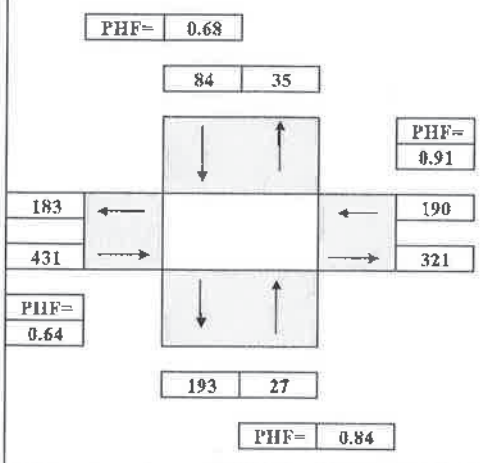
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	M STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-20AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	2	5	3	2	8	1	0	37	16	3	17	3	*97*
7:15 AM	---	7:30 AM	4	9	3	5	15	3	1	85	52	7	37	5	*226*
7:30 AM	---	7:45 AM	5	11	5	5	26	3	2	155	76	8	84	9	*389*
7:45 AM	---	8:00 AM	5	15	7	12	46	7	6	261	134	8	128	13	*642*
8:00 AM	---	8:15 AM	6	17	12	15	59	10	7	314	154	10	166	18	*788*
8:15 AM	---	8:30 AM	6	20	17	18	73	16	10	379	180	14	205	20	*958*
8:30 AM	---	8:45 AM	6	23	18	21	83	18	13	437	191	16	242	24	*1,092*
8:45 AM	---	9:00 AM	7	26	23	23	89	19	15	483	202	19	281	28	*1,215*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	2	5	3	2	8	1	0	37	16	3	17	3	*97*
7:15 AM	---	7:30 AM	2	4	0	3	7	2	1	48	36	4	20	2	*129*
7:30 AM	---	7:45 AM	1	2	2	0	11	0	1	70	24	1	47	4	*163*
7:45 AM	---	8:00 AM	0	4	2	7	20	4	4	106	58	0	44	4	*253*
8:00 AM	---	8:15 AM	1	2	5	3	13	3	1	53	20	2	38	5	*146*
8:15 AM	---	8:30 AM	0	3	5	3	14	6	3	65	26	4	39	2	*170*
8:30 AM	---	8:45 AM	0	3	1	3	10	2	3	58	11	2	37	4	*134*
8:45 AM	---	9:00 AM	1	3	5	2	6	1	2	46	11	3	39	4	*123*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	5	15	7	12	46	7	6	261	134	8	128	13	*642*
7:15 AM	---	8:15 AM	4	12	9	13	51	9	7	277	138	7	149	15	*691*
7:30 AM	---	8:30 AM	2	11	14	13	58	13	9	294	128	7	168	15	*732*
7:45 AM	---	8:45 AM	1	12	13	16	57	15	11	282	115	8	158	15	*703*
8:00 AM	---	9:00 AM	2	11	16	11	43	12	9	222	68	11	153	15	*573*

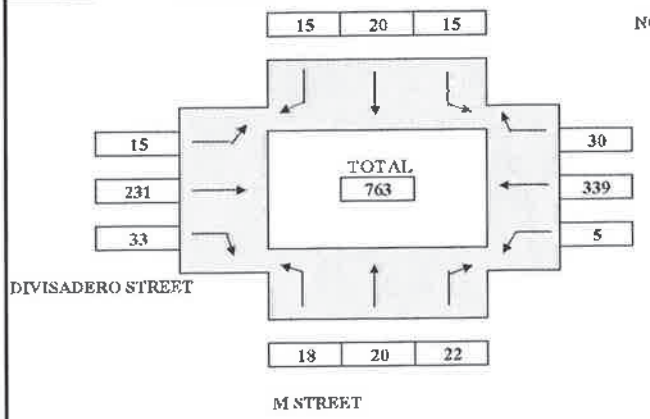
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B.A.Y.M.E.T.R.I.C.S.

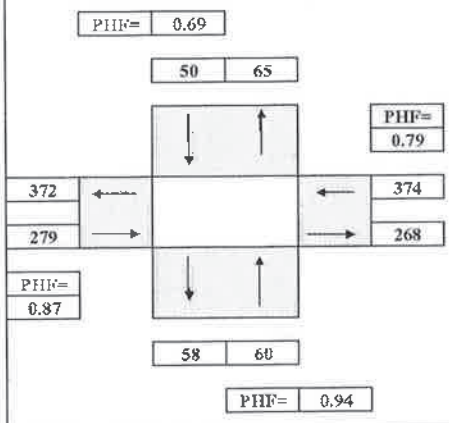
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	M STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-20PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA														
4:00 PM ---	4:15 PM	5	4	6	0	7	3	1	48	10	0	72	5	*161*
4:15 PM ---	4:30 PM	6	5	10	5	11	5	3	79	17	3	121	14	*279*
4:30 PM ---	4:45 PM	12	9	15	8	14	6	7	144	23	3	202	18	*461*
4:45 PM ---	5:00 PM	18	11	21	10	20	11	9	183	33	4	277	26	*623*
5:00 PM ---	5:15 PM	21	17	28	15	24	14	12	243	43	5	385	35	*842*
5:15 PM ---	5:30 PM	24	25	32	20	31	20	18	310	50	8	460	44	*1,042*
5:30 PM ---	5:45 PM	28	26	39	25	39	24	19	353	55	8	528	52	*1,196*
5:45 PM ---	6:00 PM	30	31	41	31	46	26	21	389	61	9	566	59	*1,310*
TOTAL BY PERIOD														
4:00 PM ---	4:15 PM	5	4	6	0	7	3	1	48	10	0	72	5	*161*
4:15 PM ---	4:30 PM	1	1	4	5	4	2	2	31	7	3	49	9	*118*
4:30 PM ---	4:45 PM	6	4	5	3	3	1	4	65	6	0	81	4	*182*
4:45 PM ---	5:00 PM	6	2	6	2	6	5	2	39	10	1	75	8	*162*
5:00 PM ---	5:15 PM	3	6	7	5	4	3	3	60	10	1	108	9	*219*
5:15 PM ---	5:30 PM	3	8	4	5	7	6	6	67	7	3	75	9	*200*
5:30 PM ---	5:45 PM	4	1	7	5	8	4	1	43	5	0	68	8	*154*
5:45 PM ---	6:00 PM	2	5	2	6	7	2	2	36	6	1	38	7	*114*
HOURLY TOTALS														
4:00 PM ---	5:00 PM	18	11	21	10	20	11	9	183	33	4	277	26	*623*
4:15 PM ---	5:15 PM	16	13	22	15	17	11	11	195	33	5	313	30	*681*
4:30 PM ---	5:30 PM	18	20	22	15	20	15	15	231	33	5	339	30	*763*
4:45 PM ---	5:45 PM	16	17	24	17	25	18	12	209	32	5	326	34	*735*
5:00 PM ---	6:00 PM	12	20	20	21	26	15	12	206	28	5	289	33	*687*

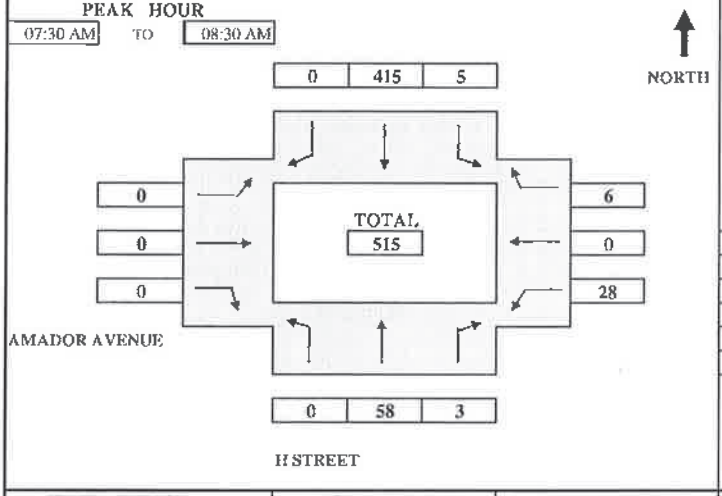
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B.A.Y.M.E.T.R.I.C.S.

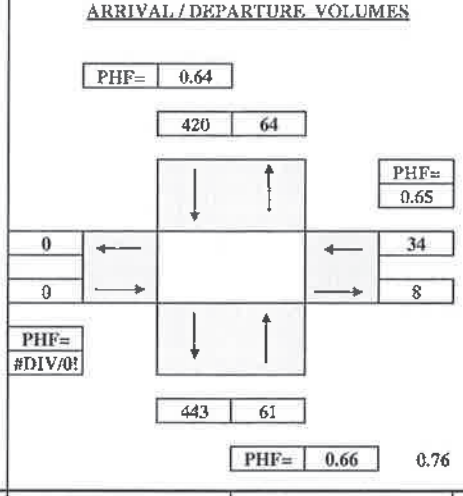
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	H STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	AMADOR AVENUE	CITY:	FRESNO	FILE:	2911072-59AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	2	0	1	42	0	0	0	0	3	0	1	*49*
7:15 AM	---	7:30 AM	0	8	2	2	112	0	0	0	0	7	0	2	*133*
7:30 AM	---	7:45 AM	0	24	4	3	202	0	0	0	0	14	0	3	*250*
7:45 AM	---	8:00 AM	0	37	4	5	364	0	0	0	0	25	0	5	*440*
8:00 AM	---	8:15 AM	0	57	4	5	448	0	0	0	0	29	0	5	*548*
8:15 AM	---	8:30 AM	0	66	5	7	527	0	0	0	0	35	0	8	*648*
8:30 AM	---	8:45 AM	0	81	5	7	581	0	0	0	0	38	0	8	*720*
8:45 AM	---	9:00 AM	0	101	8	8	619	0	0	0	0	41	0	9	*786*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	2	0	1	42	0	0	0	0	3	0	1	*49*
7:15 AM	---	7:30 AM	0	6	2	1	70	0	0	0	0	4	0	1	*84*
7:30 AM	---	7:45 AM	0	16	2	1	90	0	0	0	0	7	0	1	*117*
7:45 AM	---	8:00 AM	0	13	0	2	162	0	0	0	0	11	0	2	*190*
8:00 AM	---	8:15 AM	0	20	0	0	84	0	0	0	0	4	0	0	*108*
8:15 AM	---	8:30 AM	0	9	1	2	79	0	0	0	0	6	0	3	*100*
8:30 AM	---	8:45 AM	0	15	0	0	54	0	0	0	0	3	0	0	*72*
8:45 AM	---	9:00 AM	0	20	3	1	38	0	0	0	0	3	0	1	*66*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	37	4	5	364	0	0	0	0	25	0	5	*440*
7:15 AM	---	8:15 AM	0	55	4	4	406	0	0	0	0	26	0	4	*499*
7:30 AM	---	8:30 AM	0	58	3	5	415	0	0	0	0	28	0	6	*515*
7:45 AM	---	8:45 AM	0	57	1	4	379	0	0	0	0	24	0	5	*470*
8:00 AM	---	9:00 AM	0	64	4	3	255	0	0	0	0	16	0	4	*346*

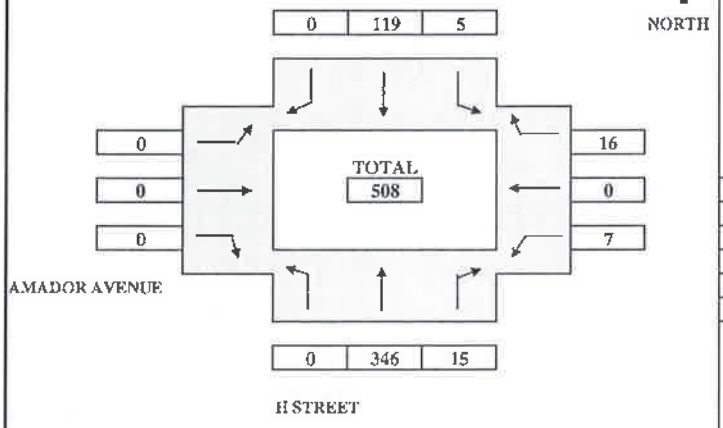
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

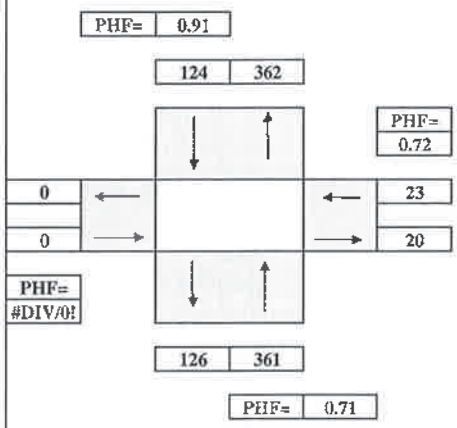
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/3/2009	DAY:	TUESDAY
N-S APPROACH:	H STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	AMADOR AVENUE	CITY:	FRESNO	FILE:	2911072-59PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	59	1	1	25	0	0	0	0	2	0	1	*89*
4:15 PM	---	4:30 PM	0	119	3	1	57	0	0	0	0	2	0	3	*185*
4:30 PM	---	4:45 PM	0	199	9	3	87	0	0	0	0	5	0	8	*311*
4:45 PM	---	5:00 PM	0	283	10	5	119	0	0	0	0	8	0	13	*438*
5:00 PM	---	5:15 PM	0	405	16	6	144	0	0	0	0	9	0	17	*597*
5:15 PM	---	5:30 PM	0	466	18	8	161	0	0	0	0	11	0	21	*685*
5:30 PM	---	5:45 PM	0	480	20	9	179	0	0	0	0	12	0	21	*721*
5:45 PM	---	6:00 PM	0	516	22	10	185	0	0	0	0	13	0	21	*767*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	59	1	1	25	0	0	0	0	2	0	1	*89*
4:15 PM	---	4:30 PM	0	60	2	0	32	0	0	0	0	0	0	2	*96*
4:30 PM	---	4:45 PM	0	80	6	2	30	0	0	0	0	3	0	5	*126*
4:45 PM	---	5:00 PM	0	84	1	2	32	0	0	0	0	3	0	5	*127*
5:00 PM	---	5:15 PM	0	122	6	1	25	0	0	0	0	1	0	4	*159*
5:15 PM	---	5:30 PM	0	61	2	2	17	0	0	0	0	2	0	4	*88*
5:30 PM	---	5:45 PM	0	14	2	1	18	0	0	0	0	1	0	0	*36*
5:45 PM	---	6:00 PM	0	36	2	1	6	0	0	0	0	1	0	0	*46*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	283	10	5	119	0	0	0	0	8	0	13	*438*
4:15 PM	---	5:15 PM	0	346	15	5	119	0	0	0	0	7	0	16	*508*
4:30 PM	---	5:30 PM	0	347	15	7	104	0	0	0	0	9	0	18	*500*
4:45 PM	---	5:45 PM	0	281	11	6	92	0	0	0	0	7	0	13	*410*
5:00 PM	---	6:00 PM	0	233	12	5	66	0	0	0	0	5	0	8	*329*

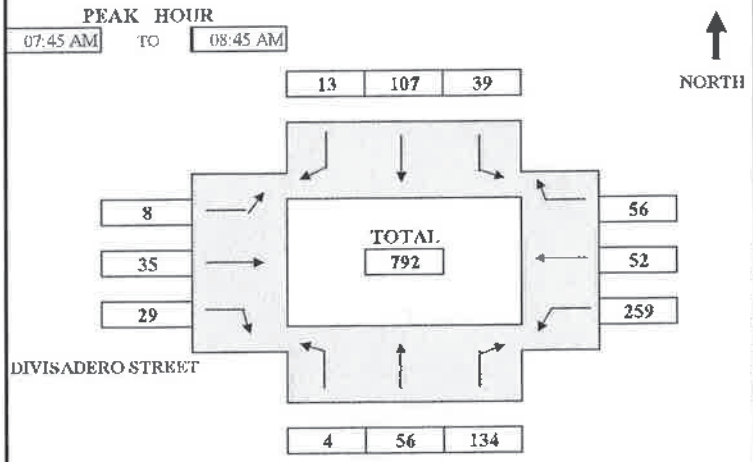
Telephone: (510)232-1271 Fax: (510)232-1272

P

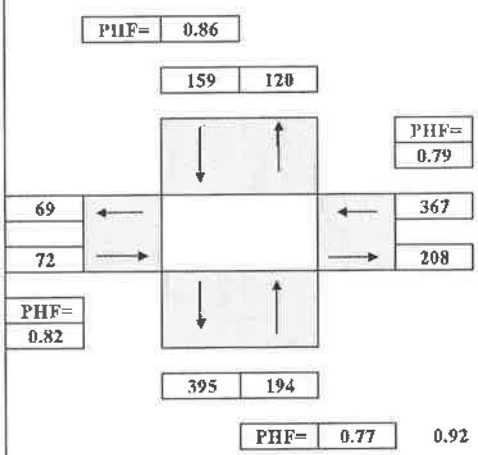
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	G STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-63AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	3	17	43	9	13	2	1	2	7	57	11	7	*172*
7:15 AM	---	7:30 AM	5	26	82	16	25	5	1	4	12	120	24	15	*335*
7:30 AM	---	7:45 AM	6	40	115	25	44	8	2	10	15	184	36	28	*513*
7:45 AM	---	8:00 AM	6	59	145	38	70	12	2	19	20	265	50	49	*735*
8:00 AM	---	8:15 AM	9	74	180	50	99	17	5	30	28	337	66	65	*960*
8:15 AM	---	8:30 AM	9	84	216	55	124	18	8	36	35	383	75	75	*1,118*
8:30 AM	---	8:45 AM	10	96	249	64	151	21	10	45	44	443	88	84	*1,305*
8:45 AM	---	9:00 AM	10	105	280	71	175	23	12	52	52	496	99	90	*1,465*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	3	17	43	9	13	2	1	2	7	57	11	7	*172*
7:15 AM	---	7:30 AM	2	9	39	7	12	3	0	2	5	63	13	8	*163*
7:30 AM	---	7:45 AM	1	14	33	9	19	3	1	6	3	64	12	13	*178*
7:45 AM	---	8:00 AM	0	19	30	13	26	4	0	9	5	81	14	21	*222*
8:00 AM	---	8:15 AM	3	15	35	12	29	5	3	11	8	72	16	16	*225*
8:15 AM	---	8:30 AM	0	10	36	5	25	1	3	6	7	46	9	10	*158*
8:30 AM	---	8:45 AM	1	12	33	9	27	3	2	9	9	60	13	9	*187*
8:45 AM	---	9:00 AM	0	9	31	7	24	2	2	7	8	53	11	6	*160*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	6	59	145	38	70	12	2	19	20	265	50	49	*735*
7:15 AM	---	8:15 AM	6	57	137	41	86	15	4	28	21	280	55	58	*788*
7:30 AM	---	8:30 AM	4	58	134	39	99	13	7	32	23	263	51	60	*783*
7:45 AM	---	8:45 AM	4	56	134	39	107	13	8	35	29	259	52	56	*792*
8:00 AM	---	9:00 AM	4	46	135	33	105	11	10	33	32	231	49	41	*730*

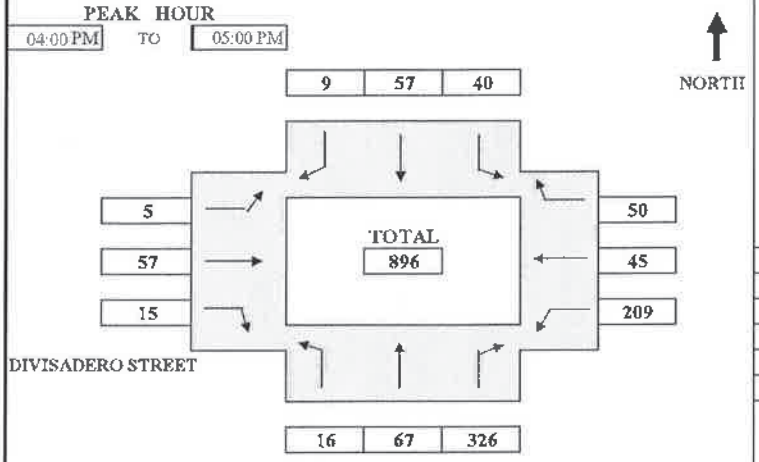
Telephone: (510)232-1271 Fax: (510)232-1272

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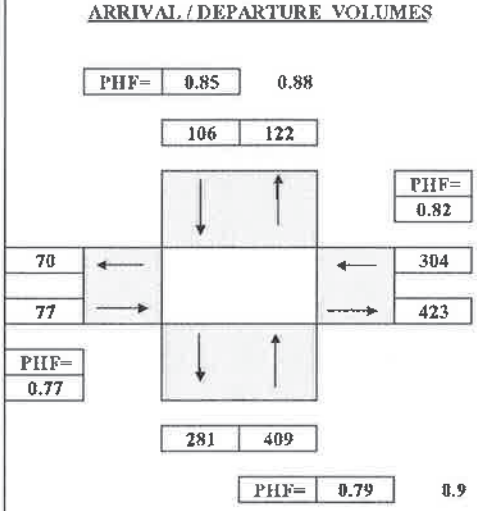
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	G STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	DIVISADERO STREET	CITY: FRESNO		FILE:	2911072-63PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	7	20	76	11	15	4	2	13	4	59	21	13	*245*
4:15 PM	---	4:30 PM	12	36	157	20	32	6	4	30	10	114	34	25	*480*
4:30 PM	---	4:45 PM	12	48	236	27	46	6	5	46	13	162	36	36	*673*
4:45 PM	---	5:00 PM	16	67	326	40	57	9	5	57	15	209	45	50	*896*
5:00 PM	---	5:15 PM	18	94	427	58	70	9	6	63	16	255	47	63	*1,126*
5:15 PM	---	5:30 PM	21	114	500	73	79	10	7	68	18	297	50	73	*1,310*
5:30 PM	---	5:45 PM	21	126	544	85	83	10	7	72	18	335	50	79	*1,430*
5:45 PM	---	6:00 PM	22	141	602	98	89	10	7	77	19	375	52	87	*1,579*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	7	20	76	11	15	4	2	13	4	59	21	13	*245*
4:15 PM	---	4:30 PM	5	16	81	9	17	2	2	17	6	55	13	12	*235*
4:30 PM	---	4:45 PM	0	12	79	7	14	0	1	16	3	48	2	11	*193*
4:45 PM	---	5:00 PM	4	19	90	13	11	3	0	11	2	47	9	14	*223*
5:00 PM	---	5:15 PM	2	27	101	18	13	0	1	6	1	46	2	13	*230*
5:15 PM	---	5:30 PM	3	20	73	15	9	1	1	5	2	42	3	10	*184*
5:30 PM	---	5:45 PM	0	12	44	12	4	0	0	4	0	38	0	6	*120*
5:45 PM	---	6:00 PM	1	15	58	13	6	0	0	5	1	40	2	8	*149*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	16	67	326	40	57	9	5	57	15	209	45	50	*896*
4:15 PM	---	5:15 PM	11	74	351	47	55	5	4	50	12	196	26	50	*881*
4:30 PM	---	5:30 PM	9	78	343	53	47	4	3	38	8	183	16	48	*830*
4:45 PM	---	5:45 PM	9	78	308	58	37	4	2	26	5	173	14	43	*757*
5:00 PM	---	6:00 PM	6	74	276	58	32	1	2	20	4	166	7	37	*683*

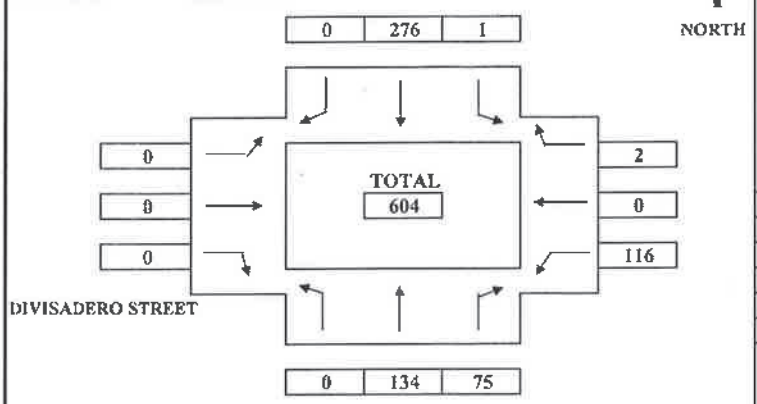
Telephone: (510)232-1271 Fax: (510)232-1272

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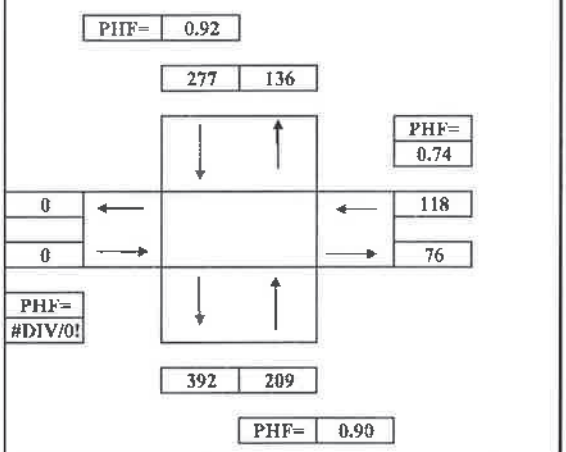
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	ROOSEVELT STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-58aAM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	41	14	0	64	0	0	0	0	11	0	0	*130*
7:15 AM	---	7:30 AM	0	73	30	0	123	0	0	0	0	36	0	0	*262*
7:30 AM	---	7:45 AM	0	106	48	0	196	0	0	0	0	54	0	0	*404*
7:45 AM	---	8:00 AM	0	139	67	1	270	0	0	0	0	93	0	1	*571*
8:00 AM	---	8:15 AM	0	175	89	1	340	0	0	0	0	127	0	2	*734*
8:15 AM	---	8:30 AM	0	200	114	1	383	0	0	0	0	153	0	2	*853*
8:30 AM	---	8:45 AM	0	234	131	1	448	0	0	0	0	172	0	2	*988*
8:45 AM	---	9:00 AM	0	265	148	1	493	0	0	0	0	197	0	3	*1,107*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	41	14	0	64	0	0	0	0	11	0	0	*130*
7:15 AM	---	7:30 AM	0	32	16	0	59	0	0	0	0	25	0	0	*132*
7:30 AM	---	7:45 AM	0	33	18	0	73	0	0	0	0	18	0	0	*142*
7:45 AM	---	8:00 AM	0	33	19	1	74	0	0	0	0	39	0	1	*167*
8:00 AM	---	8:15 AM	0	36	22	0	70	0	0	0	0	34	0	1	*163*
8:15 AM	---	8:30 AM	0	25	25	0	43	0	0	0	0	26	0	0	*119*
8:30 AM	---	8:45 AM	0	34	17	0	65	0	0	0	0	19	0	0	*135*
8:45 AM	---	9:00 AM	0	31	17	0	45	0	0	0	0	25	0	1	*119*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	139	67	1	270	0	0	0	0	93	0	1	*571*
7:15 AM	---	8:15 AM	0	134	75	1	276	0	0	0	0	116	0	2	*604*
7:30 AM	---	8:30 AM	0	127	84	1	260	0	0	0	0	117	0	2	*591*
7:45 AM	---	8:45 AM	0	128	83	1	252	0	0	0	0	118	0	2	*584*
8:00 AM	---	9:00 AM	0	126	81	0	223	0	0	0	0	104	0	2	*536*

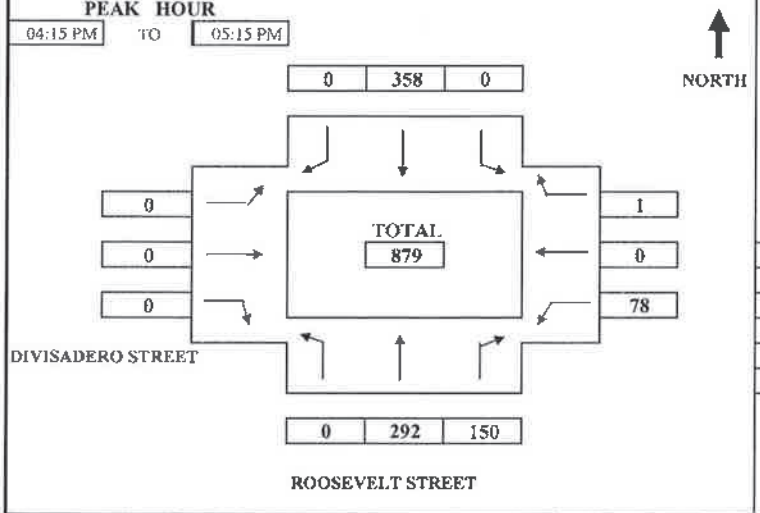
Telephone: (510)232-1271 Fax: (510)232-1272

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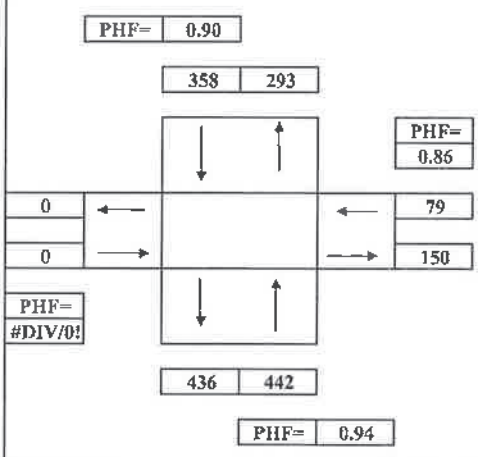
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	ROOSEVELT STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	DIVISADERO STREET	CITY: FRESNO		FILE:	2911072-58aPM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



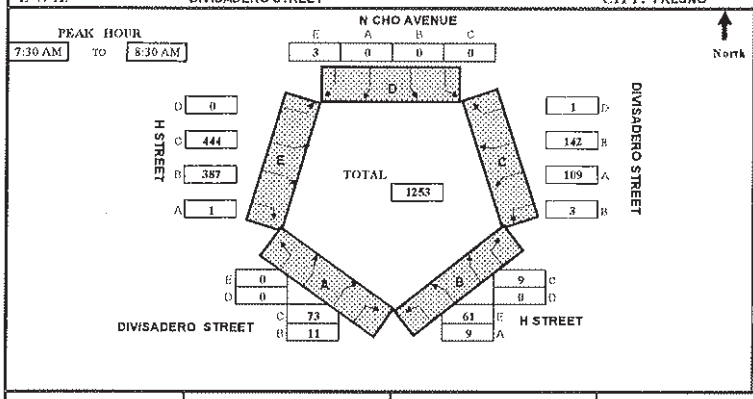
TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	63	37	0	82	0	0	0	0	18	0	0	*200*
4:15 PM	---	4:30 PM	0	142	68	0	168	0	0	0	0	39	0	0	*417*
4:30 PM	---	4:45 PM	0	204	108	0	249	0	0	0	0	60	0	0	*621*
4:45 PM	---	5:00 PM	0	283	141	0	341	0	0	0	0	82	0	1	*848*
5:00 PM	---	5:15 PM	0	355	187	0	440	0	0	0	0	96	0	1	*1,079*
5:15 PM	---	5:30 PM	0	413	222	0	522	0	0	0	0	118	0	1	*1,276*
5:30 PM	---	5:45 PM	0	448	258	1	569	0	0	0	0	139	0	1	*1,416*
5:45 PM	---	6:00 PM	0	505	275	1	618	0	0	0	0	158	0	2	*1,559*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	63	37	0	82	0	0	0	0	18	0	0	*200*
4:15 PM	---	4:30 PM	0	79	31	0	86	0	0	0	0	21	0	0	*217*
4:30 PM	---	4:45 PM	0	62	40	0	81	0	0	0	0	21	0	0	*204*
4:45 PM	---	5:00 PM	0	79	33	0	92	0	0	0	0	22	0	1	*227*
5:00 PM	---	5:15 PM	0	72	46	0	99	0	0	0	0	14	0	0	*231*
5:15 PM	---	5:30 PM	0	58	35	0	82	0	0	0	0	22	0	0	*197*
5:30 PM	---	5:45 PM	0	35	36	1	47	0	0	0	0	21	0	0	*140*
5:45 PM	---	6:00 PM	0	57	17	0	49	0	0	0	0	19	0	1	*143*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	283	141	0	341	0	0	0	0	82	0	1	*848*
4:15 PM	---	5:15 PM	0	292	150	0	358	0	0	0	0	78	0	1	*879*
4:30 PM	---	5:30 PM	0	271	154	0	354	0	0	0	0	79	0	1	*859*
4:45 PM	---	5:45 PM	0	244	150	1	320	0	0	0	0	79	0	1	*795*
5:00 PM	---	6:00 PM	0	222	134	1	277	0	0	0	0	76	0	1	*711*

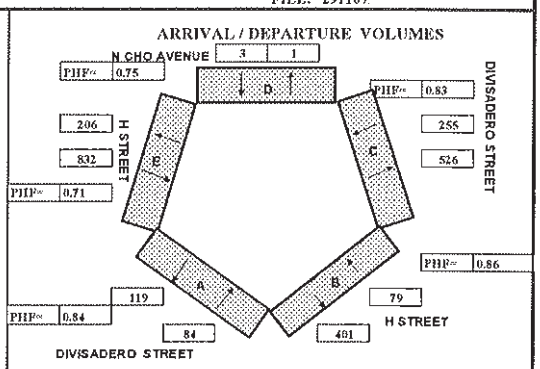
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJE	HST PROJECT	SURVE	11/04/09 DAY: WEDNESDAY
N-S AV	N ABBY STREET	SURVE	7:00 AM TO 9:00 AM
E-W AV	DIVISADERO STREET	CITY: FRESNO	FILE: 291107





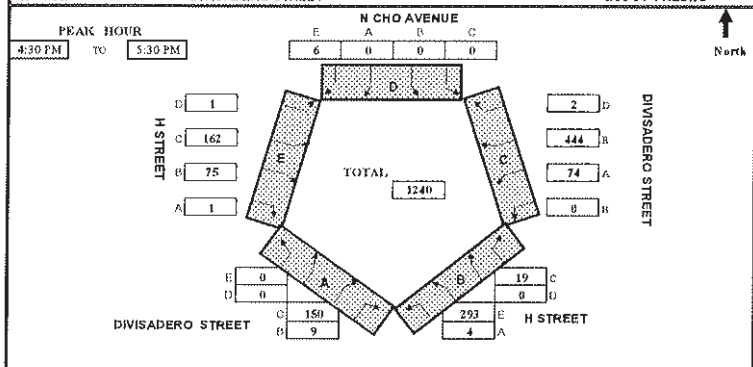
TIME From		To	EB DI E	D	C	B	N A	E	D	C	WB B	A	E	D	N C	B	A	E	D	C	B	A	TOTAL
SURVEY DATA																							
7:00 AM	---	7:15 AM	0	0	12	1	1	2	1	1	0	10	26	1	0	0	0	0	0	58	43	0	*113*
7:15 AM	---	7:30 AM	0	0	25	4	1	10	1	3	0	34	49	1	0	0	0	0	0	132	116	1	*260*
7:30 AM	---	7:45 AM	0	0	41	5	1	24	1	3	0	52	91	1	0	0	0	1	0	231	202	1	*451*
7:45 AM	---	8:00 AM	0	0	58	8	3	40	1	4	2	90	127	2	0	0	0	2	0	385	339	1	*722*
8:00 AM	---	8:15 AM	0	0	78	10	7	55	1	8	2	120	157	2	0	0	0	3	0	497	432	2	*940*
8:15 AM	---	8:30 AM	0	0	98	15	10	71	1	12	3	143	191	2	0	0	0	3	0	576	503	2	*1,125*
8:30 AM	---	8:45 AM	0	0	114	16	11	77	1	18	4	158	231	2	0	0	0	3	0	640	539	2	*1,275*
8:45 AM	---	9:00 AM	0	0	129	18	12	84	1	23	4	183	267	3	0	0	0	3	0	696	572	2	*1,423*
TOTAL BY PERIOD																							
7:00 AM	---	7:15 AM	0	0	12	1	1	2	1	1	0	10	26	1	0	0	0	0	0	58	43	0	*113*
7:15 AM	---	7:30 AM	0	0	13	3	0	8	0	2	0	24	23	0	0	0	0	0	0	74	73	1	*147*
7:30 AM	---	7:45 AM	0	0	16	1	0	14	0	0	0	18	42	0	0	0	0	1	0	99	86	0	*191*
7:45 AM	---	8:00 AM	0	0	17	3	2	16	0	1	2	38	36	1	0	0	0	1	0	154	137	0	*271*
8:00 AM	---	8:15 AM	0	0	20	2	4	15	0	4	0	30	30	0	0	0	0	1	0	112	93	1	*218*
8:15 AM	---	8:30 AM	0	0	20	5	3	16	0	4	1	23	34	0	0	0	0	0	0	79	71	0	*185*
8:30 AM	---	8:45 AM	0	0	16	1	1	6	0	6	1	15	40	0	0	0	0	0	0	64	36	0	*150*
8:45 AM	---	9:00 AM	0	0	15	2	1	7	0	5	0	25	36	1	0	0	0	0	0	56	33	0	*148*
HOURLY TOTALS																							
7:00 AM	---	8:00 AM	0	0	58	8	3	40	1	4	2	90	127	2	0	0	0	2	0	385	339	1	*722*
7:15 AM	---	8:15 AM	0	0	66	9	6	53	0	7	2	110	131	1	0	0	0	3	0	439	389	2	*827*
7:30 AM	---	8:30 AM	0	0	73	11	9	61	0	9	3	109	142	1	0	0	0	3	0	444	387	1	*865*
7:45 AM	---	8:45 AM	0	0	73	11	10	53	0	15	4	106	140	1	0	0	0	2	0	409	337	1	*824*
8:00 AM	---	9:00 AM	0	0	71	10	9	44	0	19	2	93	140	1	0	0	0	1	0	311	233	1	*701*

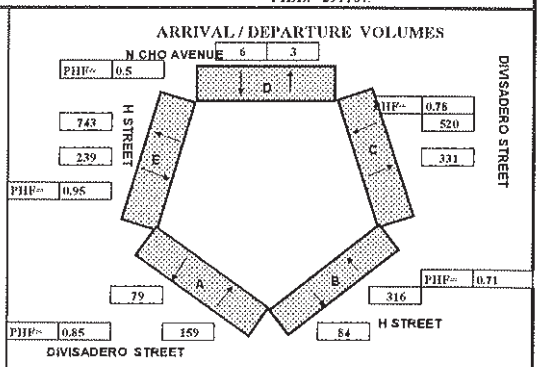
Telephone: (510) 232-1271 *Fax: (510)232-1272*

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJE	HST PROJECT	SURVE	11/04/09 DAY: WEDNESDAY
N-S AP	N ABBY STREET	SURVE	4:00 PM TO 6:00 PM
E-W AI	DIVISADERO STREET	CITY: FRESNO	FILE: 291107





TIME From		To	EB DI E	D	C	B	N A	E	D	C	WB B	A	E	D	N C	B	A	E	D	C	B	A	TOTAL
SURVEY DATA																							
4:00 PM	---	4:15 PM	0	0	36	1	1	36	0	5	2	16	100	0	0	0	0	1	1	32	26	1	*231*
4:15 PM	---	4:30 PM	0	0	61	3	2	78	0	12	2	35	162	0	0	0	1	1	1	68	53	1	*426*
4:30 PM	---	4:45 PM	0	0	102	6	2	159	0	16	2	56	262	0	0	0	1	2	1	104	80	1	*715*
4:45 PM	---	5:00 PM	0	0	133	8	3	209	0	17	2	78	367	0	0	0	1	2	2	137	102	1	*959*
5:00 PM	---	5:15 PM	0	0	178	10	4	311	0	26	2	90	520	1	0	0	1	4	2	186	113	1	*1,335*
5:15 PM	---	5:30 PM	0	0	211	12	6	371	0	31	2	109	606	2	0	0	1	7	2	230	128	2	*1,590*
5:30 PM	---	5:45 PM	0	0	248	13	8	400	0	35	2	128	682	2	0	0	1	7	2	260	152	2	*1,788*
5:45 PM	---	6:00 PM	0	0	265	13	8	419	0	38	2	148	735	3	0	0	1	7	2	280	169	2	*1,921*
TOTAL BY PERIOD																							
4:00 PM	---	4:15 PM	0	0	36	1	1	36	0	5	2	16	100	0	0	0	0	1	1	32	26	1	*231*
4:15 PM	---	4:30 PM	0	0	25	2	1	42	0	7	0	19	62	0	0	0	1	0	0	36	27	0	*195*
4:30 PM	---	4:45 PM	0	0	41	3	0	81	0	4	0	21	100	0	0	0	0	1	0	36	27	0	*287*
4:45 PM	---	5:00 PM	0	0	31	2	1	50	0	1	0	22	105	0	0	0	0	0	1	33	22	0	*246*
5:00 PM	---	5:15 PM	0	0	45	2	1	102	0	9	0	12	153	1	0	0	0	2	0	49	11	0	*376*
5:15 PM	---	5:30 PM	0	0	33	2	2	60	0	5	0	19	86	1	0	0	0	3	0	44	15	1	*255*
5:30 PM	---	5:45 PM	0	0	37	1	2	29	0	4	0	19	76	0	0	0	0	0	0	30	24	0	*198*
5:45 PM	---	6:00 PM	0	0	17	0	0	19	0	3	0	20	53	1	0	0	0	0	0	20	17	0	*133*
HOURLY TOTALS																							
4:00 PM	---	5:00 PM	0	0	133	8	3	209	0	17	2	78	367	0	0	0	1	2	2	137	102	1	*959*
4:15 PM	---	5:15 PM	0	0	142	9	3	275	0	21	0	74	420	1	0	0	1	3	1	154	87	0	*1,104*
4:30 PM	---	5:30 PM	0	0	150	9	4	293	0	19	0	74	444	2	0	0	0	6	1	162	75	1	*1,164*
4:45 PM	---	5:45 PM	0	0	146	7	6	241	0	19	0	72	420	2	0	0	0	5	1	156	72	1	*1,075*
5:00 PM	---	6:00 PM	0	0	132	5	5	210	0	21	0	70	368	3	0	0	0	5	0	143	67	1	*962*

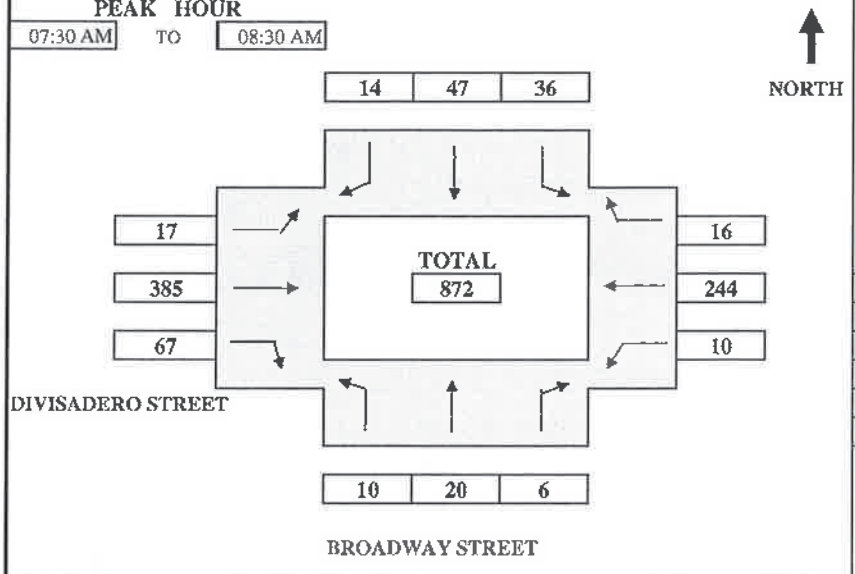
Telephone: (510) 232-1271 *Fax: (510)232-1272*

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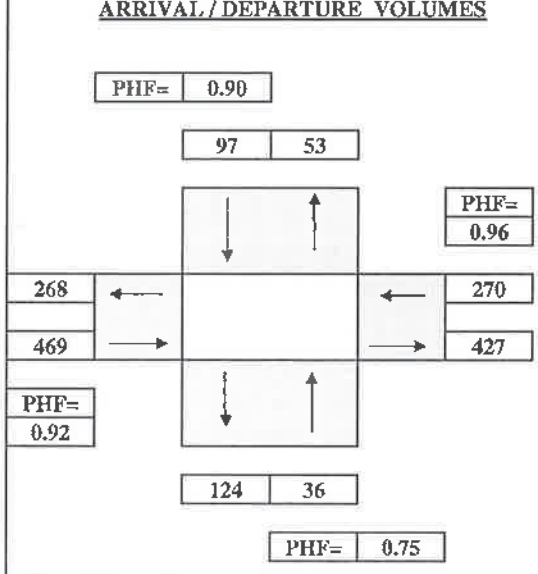
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-1AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	2	2	4	8	12	2	4	93	8	8	47	0	*190*
7:15 AM	---	7:30 AM	5	6	6	15	23	5	7	184	19	14	102	3	*389*
7:30 AM	---	7:45 AM	9	11	6	21	32	9	9	282	33	15	165	7	*599*
7:45 AM	---	8:00 AM	12	17	9	32	45	12	13	381	49	19	226	10	*825*
8:00 AM	---	8:15 AM	13	21	10	41	59	15	18	482	70	21	285	13	*1,048*
8:15 AM	---	8:30 AM	15	26	12	51	70	19	24	569	86	24	346	19	*1,261*
8:30 AM	---	8:45 AM	16	31	12	53	79	24	28	634	97	25	404	26	*1,429*
8:45 AM	---	9:00 AM	18	35	13	59	89	28	33	696	111	27	461	31	*1,601*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	2	2	4	8	12	2	4	93	8	8	47	0	*190*
7:15 AM	---	7:30 AM	3	4	2	7	11	3	3	91	11	6	55	3	*199*
7:30 AM	---	7:45 AM	4	5	0	6	9	4	2	98	14	1	63	4	*210*
7:45 AM	---	8:00 AM	3	6	3	11	13	3	4	99	16	4	61	3	*226*
8:00 AM	---	8:15 AM	1	4	1	9	14	3	5	101	21	2	59	3	*223*
8:15 AM	---	8:30 AM	2	5	2	10	11	4	6	87	16	3	61	6	*213*
8:30 AM	---	8:45 AM	1	5	0	2	9	5	4	65	11	1	58	7	*168*
8:45 AM	---	9:00 AM	2	4	1	6	10	4	5	62	14	2	57	5	*172*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	12	17	9	32	45	12	13	381	49	19	226	10	*825*
7:15 AM	---	8:15 AM	11	19	6	33	47	13	14	389	62	13	238	13	*858*
7:30 AM	---	8:30 AM	10	20	6	36	47	14	17	385	67	10	244	16	*872*
7:45 AM	---	8:45 AM	7	20	6	32	47	15	19	352	64	10	239	19	*830*
8:00 AM	---	9:00 AM	6	18	4	27	44	16	20	315	62	8	235	21	*776*

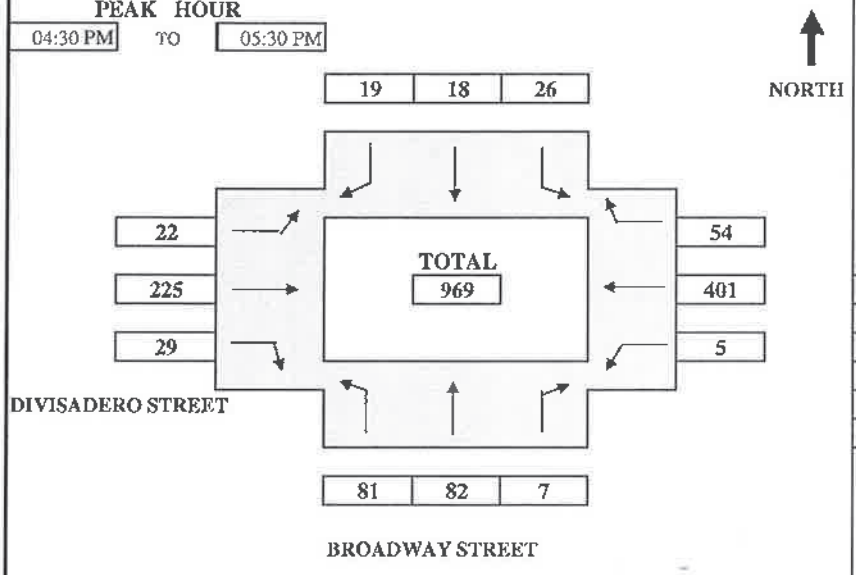
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

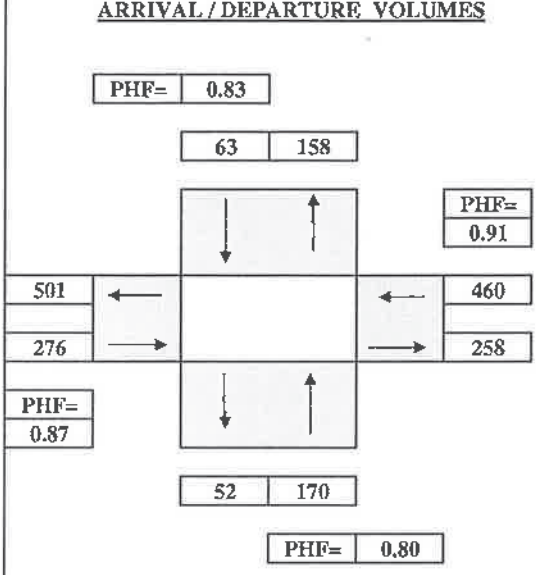
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-1PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	6	10	2	3	12	2	6	56	4	1	87	11	*200*
4:15 PM	---	4:30 PM	15	23	5	7	21	5	11	111	9	2	178	24	*411*
4:30 PM	---	4:45 PM	30	32	6	13	27	9	15	165	14	2	270	39	*622*
4:45 PM	---	5:00 PM	51	51	10	21	33	14	20	224	23	4	369	55	*875*
5:00 PM	---	5:15 PM	74	81	10	28	35	20	26	289	31	5	482	68	*1,149*
5:15 PM	---	5:30 PM	96	105	12	33	39	24	33	336	38	7	579	78	*1,380*
5:30 PM	---	5:45 PM	103	108	12	38	41	25	39	376	39	8	648	85	*1,522*
5:45 PM	---	6:00 PM	115	125	14	44	44	28	42	412	43	11	723	94	*1,695*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	6	10	2	3	12	2	6	56	4	1	87	11	*200*
4:15 PM	---	4:30 PM	9	13	3	4	9	3	5	55	5	1	91	13	*211*
4:30 PM	---	4:45 PM	15	9	1	6	6	4	4	54	5	0	92	15	*211*
4:45 PM	---	5:00 PM	21	19	4	8	6	5	5	59	9	2	99	16	*253*
5:00 PM	---	5:15 PM	23	30	0	7	2	6	6	65	8	1	113	13	*274*
5:15 PM	---	5:30 PM	22	24	2	5	4	4	7	47	7	2	97	10	*231*
5:30 PM	---	5:45 PM	7	3	0	5	2	1	6	40	1	1	69	7	*142*
5:45 PM	---	6:00 PM	12	17	2	6	3	3	3	36	4	3	75	9	*173*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	51	51	10	21	33	14	20	224	23	4	369	55	*875*
4:15 PM	---	5:15 PM	68	71	8	25	23	18	20	233	27	4	395	57	*949*
4:30 PM	---	5:30 PM	81	82	7	26	18	19	22	225	29	5	401	54	*969*
4:45 PM	---	5:45 PM	73	76	6	25	14	16	24	211	25	6	378	46	*900*
5:00 PM	---	6:00 PM	64	74	4	23	11	14	22	188	20	7	354	39	*820*

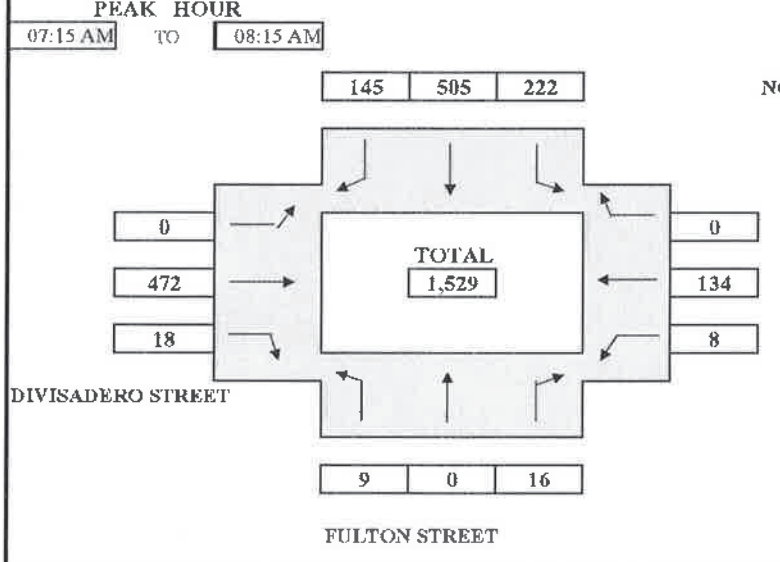
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

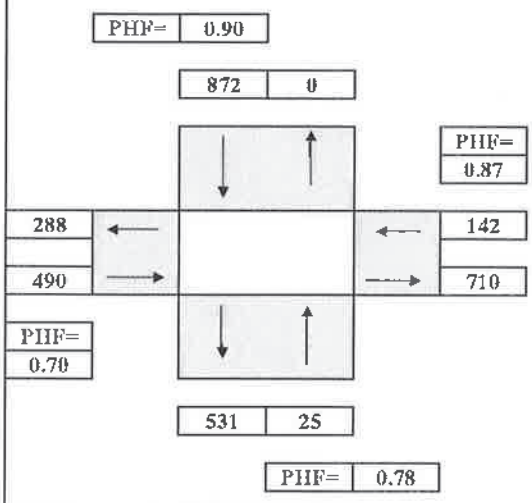
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	FULTON STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-9AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	6	0	12	38	84	31	0	58	2	2	16	0	*249*
7:15 AM	---	7:30 AM	7	0	19	86	209	63	0	128	8	3	38	0	*561*
7:30 AM	---	7:45 AM	11	0	23	141	338	104	0	300	10	5	77	0	*1,009*
7:45 AM	---	8:00 AM	14	0	25	211	472	141	0	434	14	8	114	0	*1,433*
8:00 AM	---	8:15 AM	15	0	28	260	589	176	0	530	20	10	150	0	*1,778*
8:15 AM	---	8:30 AM	18	0	33	307	685	215	0	607	25	13	179	0	*2,082*
8:30 AM	---	8:45 AM	24	0	39	340	760	239	0	665	29	15	211	0	*2,322*
8:45 AM	---	9:00 AM	26	0	42	375	841	262	0	728	31	16	236	0	*2,557*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	6	0	12	38	84	31	0	58	2	2	16	0	*249*
7:15 AM	---	7:30 AM	1	0	7	48	125	32	0	70	6	1	22	0	*312*
7:30 AM	---	7:45 AM	4	0	4	55	129	41	0	172	2	2	39	0	*448*
7:45 AM	---	8:00 AM	3	0	2	70	134	37	0	134	4	3	37	0	*424*
8:00 AM	---	8:15 AM	1	0	3	49	117	35	0	96	6	2	36	0	*345*
8:15 AM	---	8:30 AM	3	0	5	47	96	39	0	77	5	3	29	0	*304*
8:30 AM	---	8:45 AM	6	0	6	33	75	24	0	58	4	2	32	0	*240*
8:45 AM	---	9:00 AM	2	0	3	35	81	23	0	63	2	1	25	0	*235*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	14	0	25	211	472	141	0	434	14	8	114	0	*1,433*
7:15 AM	---	8:15 AM	9	0	16	222	505	145	0	472	18	8	134	0	*1,529*
7:30 AM	---	8:30 AM	11	0	14	221	476	152	0	479	17	10	141	0	*1,521*
7:45 AM	---	8:45 AM	13	0	16	199	422	135	0	365	19	10	134	0	*1,313*
8:00 AM	---	9:00 AM	12	0	17	164	369	121	0	294	17	8	122	0	*1,124*

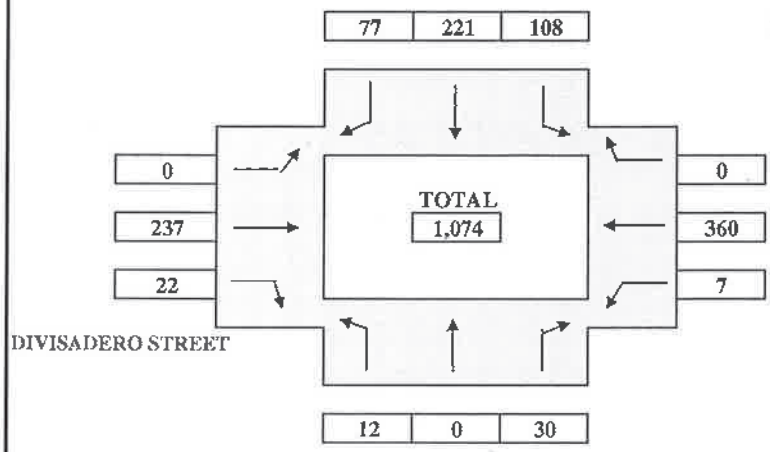
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

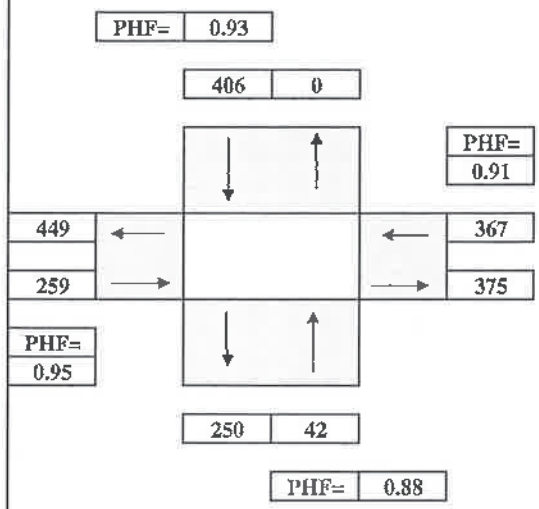
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	FULTON STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-9PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	4	0	7	29	49	17	0	61	5	1	77	0	*250*
4:15 PM	---	4:30 PM	7	0	16	55	106	40	0	117	11	3	160	0	*515*
4:30 PM	---	4:45 PM	11	0	23	82	155	57	0	180	15	5	253	0	*781*
4:45 PM	---	5:00 PM	13	0	29	111	216	76	0	237	20	5	339	0	*1,046*
5:00 PM	---	5:15 PM	16	0	37	137	270	94	0	298	27	8	437	0	*1,324*
5:15 PM	---	5:30 PM	17	0	44	158	316	115	0	348	29	10	516	0	*1,553*
5:30 PM	---	5:45 PM	19	0	50	178	369	130	0	391	32	11	583	0	*1,763*
5:45 PM	---	6:00 PM	23	0	57	194	437	154	0	429	34	13	642	0	*1,983*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	4	0	7	29	49	17	0	61	5	1	77	0	*250*
4:15 PM	---	4:30 PM	3	0	9	26	57	23	0	56	6	2	83	0	*265*
4:30 PM	---	4:45 PM	4	0	7	27	49	17	0	63	4	2	93	0	*266*
4:45 PM	---	5:00 PM	2	0	6	29	61	19	0	57	5	0	86	0	*265*
5:00 PM	---	5:15 PM	3	0	8	26	54	18	0	61	7	3	98	0	*278*
5:15 PM	---	5:30 PM	1	0	7	21	46	21	0	50	2	2	79	0	*229*
5:30 PM	---	5:45 PM	2	0	6	20	53	15	0	43	3	1	67	0	*210*
5:45 PM	---	6:00 PM	4	0	7	16	68	24	0	38	2	2	59	0	*220*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	13	0	29	111	216	76	0	237	20	5	339	0	*1,046*
4:15 PM	---	5:15 PM	12	0	30	108	221	77	0	237	22	7	360	0	*1,074*
4:30 PM	---	5:30 PM	10	0	28	103	210	75	0	231	18	7	356	0	*1,038*
4:45 PM	---	5:45 PM	8	0	27	96	214	73	0	211	17	6	330	0	*982*
5:00 PM	---	6:00 PM	10	0	28	83	221	78	0	192	14	8	303	0	*937*

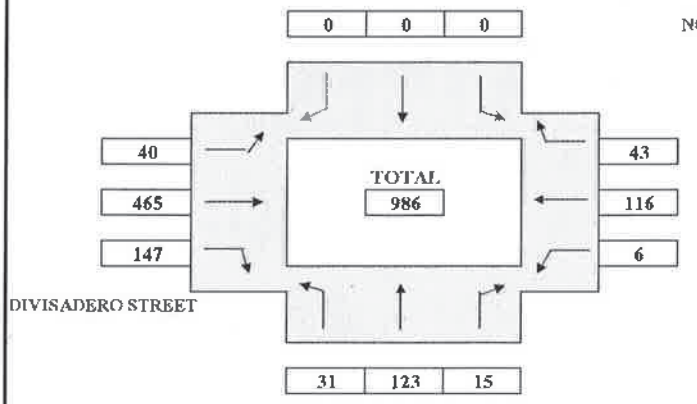
Telephone: (510)232-1271 Fax: (510)232-1272

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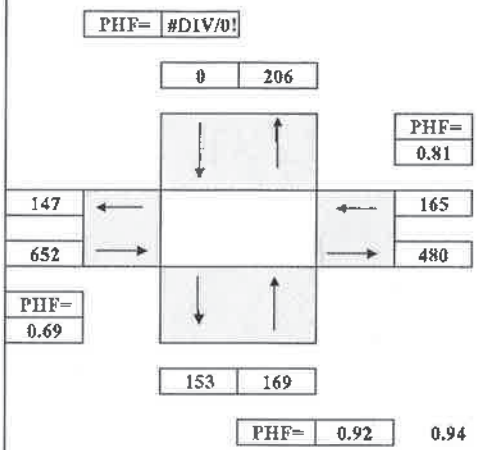
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-12AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	8	16	0	0	0	0	6	59	21	0	15	5	*130*
7:15 AM	---	7:30 AM	14	40	2	0	0	0	15	147	49	1	33	11	*312*
7:30 AM	---	7:45 AM	21	74	6	0	0	0	22	265	85	1	68	27	*569*
7:45 AM	---	8:00 AM	33	102	6	0	0	0	32	443	132	2	98	30	*878*
8:00 AM	---	8:15 AM	36	134	14	0	0	0	44	529	166	5	123	44	*1,095*
8:15 AM	---	8:30 AM	45	163	17	0	0	0	55	612	196	7	149	54	*1,298*
8:30 AM	---	8:45 AM	56	193	22	0	0	0	78	677	217	7	182	63	*1,495*
8:45 AM	---	9:00 AM	62	221	25	0	0	0	91	734	237	8	216	67	*1,661*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	8	16	0	0	0	0	6	59	21	0	15	5	*130*
7:15 AM	---	7:30 AM	6	24	2	0	0	0	9	88	28	1	18	6	*182*
7:30 AM	---	7:45 AM	7	34	4	0	0	0	7	118	36	0	35	16	*257*
7:45 AM	---	8:00 AM	12	28	0	0	0	0	10	178	47	1	30	3	*309*
8:00 AM	---	8:15 AM	3	32	8	0	0	0	12	86	34	3	25	14	*217*
8:15 AM	---	8:30 AM	9	29	3	0	0	0	11	83	30	2	26	10	*203*
8:30 AM	---	8:45 AM	11	30	5	0	0	0	23	65	21	0	33	9	*197*
8:45 AM	---	9:00 AM	6	28	3	0	0	0	13	57	20	1	34	4	*166*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	33	102	6	0	0	0	32	443	132	2	98	30	*878*
7:15 AM	---	8:15 AM	28	118	14	0	0	0	38	470	145	5	108	39	*965*
7:30 AM	---	8:30 AM	31	123	15	0	0	0	40	465	147	6	116	43	*986*
7:45 AM	---	8:45 AM	35	119	16	0	0	0	56	412	132	6	114	36	*926*
8:00 AM	---	9:00 AM	29	119	19	0	0	0	59	291	105	6	118	37	*783*

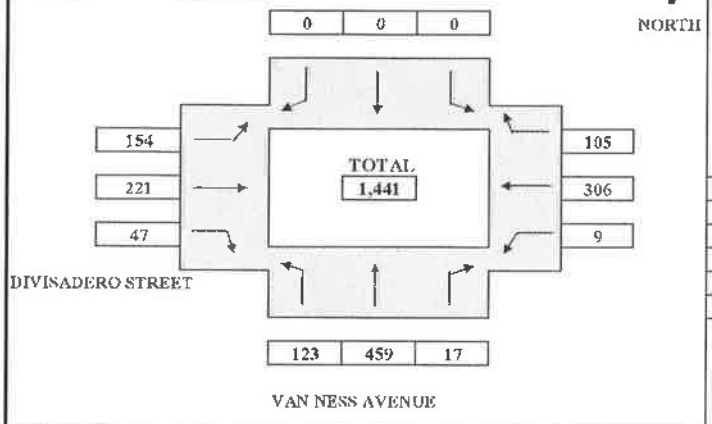
Telephone: (510)232-1271 Fax: (510)232-1272

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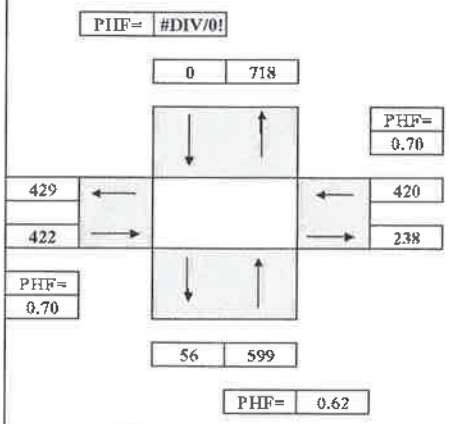
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	DIVISADERO STREET	CITY:	FRESNO	FILE:	2911072-12PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	44	99	3	0	0	0	28	48	15	1	52	26	*316*
4:15 PM	---	4:30 PM	65	183	6	0	0	0	60	86	26	4	94	53	*577*
4:30 PM	---	4:45 PM	94	285	11	0	0	0	93	149	36	5	175	72	*920*
4:45 PM	---	5:00 PM	117	370	15	0	0	0	124	192	46	9	252	89	*1,214*
5:00 PM	---	5:15 PM	167	558	20	0	0	0	182	269	62	10	358	131	*1,757*
5:15 PM	---	5:30 PM	188	629	23	0	0	0	212	317	69	12	408	146	*2,004*
5:30 PM	---	5:45 PM	202	720	24	0	0	0	234	370	78	12	449	161	*2,250*
5:45 PM	---	6:00 PM	213	771	29	0	0	0	243	397	85	12	484	168	*2,402*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	44	99	3	0	0	0	28	48	15	1	52	26	*316*
4:15 PM	---	4:30 PM	21	84	3	0	0	0	32	38	11	3	42	27	*261*
4:30 PM	---	4:45 PM	29	102	5	0	0	0	33	63	10	1	81	19	*343*
4:45 PM	---	5:00 PM	23	85	4	0	0	0	31	43	10	4	77	17	*294*
5:00 PM	---	5:15 PM	50	188	5	0	0	0	58	77	16	1	106	42	*543*
5:15 PM	---	5:30 PM	21	71	3	0	0	0	30	48	7	2	50	15	*247*
5:30 PM	---	5:45 PM	14	91	1	0	0	0	22	53	9	0	41	15	*246*
5:45 PM	---	6:00 PM	11	51	5	0	0	0	9	27	7	0	35	7	*152*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	117	370	15	0	0	0	124	192	46	9	252	89	*1,214*
4:15 PM	---	5:15 PM	123	459	17	0	0	0	154	221	47	9	306	105	*1,441*
4:30 PM	---	5:30 PM	123	446	17	0	0	0	152	231	43	8	314	93	*1,427*
4:45 PM	---	5:45 PM	108	435	13	0	0	0	141	221	42	7	274	89	*1,330*
5:00 PM	---	6:00 PM	96	401	14	0	0	0	119	205	39	3	232	79	*1,188*

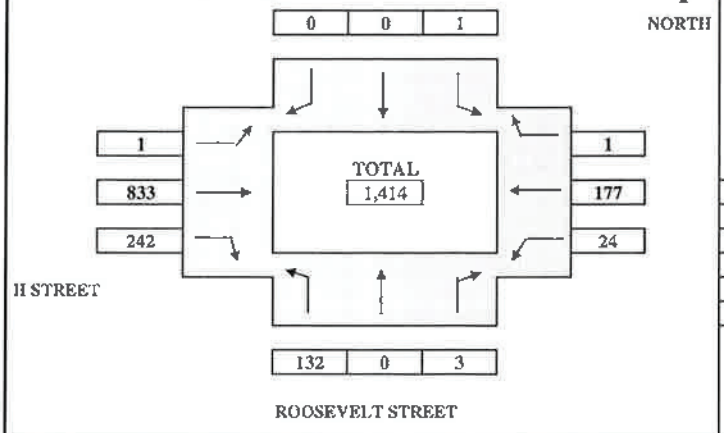
Telephone: (510)232-1271 Fax: (510)232-1272

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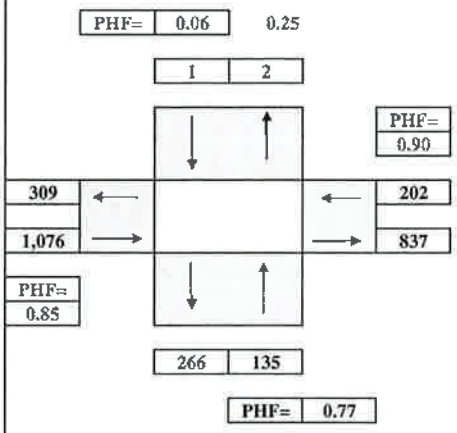
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	H STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	ROOSEVELT STREET	CITY:	FRESNO	FILE:	2911072-58AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	23	0	1	1	0	0	0	95	43	7	17	0	*187*
7:15 AM	---	7:30 AM	55	0	1	1	0	0	0	282	97	12	56	0	*504*
7:30 AM	---	7:45 AM	96	0	4	1	0	0	0	533	162	16	107	1	*920*
7:45 AM	---	8:00 AM	129	0	4	1	0	0	0	754	225	22	154	1	*1,290*
8:00 AM	---	8:15 AM	155	0	4	2	0	0	1	928	285	31	194	1	*1,601*
8:15 AM	---	8:30 AM	179	0	5	2	1	0	1	1,075	336	39	227	1	*1,866*
8:30 AM	---	8:45 AM	201	0	5	3	1	0	1	1,152	361	46	256	1	*2,027*
8:45 AM	---	9:00 AM	224	0	5	3	1	0	1	1,248	388	51	278	1	*2,200*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	23	0	1	1	0	0	0	95	43	7	17	0	*187*
7:15 AM	---	7:30 AM	32	0	0	0	0	0	0	187	54	5	39	0	*317*
7:30 AM	---	7:45 AM	41	0	3	0	0	0	0	251	65	4	51	1	*416*
7:45 AM	---	8:00 AM	33	0	0	0	0	0	0	221	63	6	47	0	*370*
8:00 AM	---	8:15 AM	26	0	0	1	0	0	1	174	60	9	40	0	*311*
8:15 AM	---	8:30 AM	24	0	1	0	1	0	0	147	51	8	33	0	*265*
8:30 AM	---	8:45 AM	22	0	0	1	0	0	0	77	25	7	29	0	*161*
8:45 AM	---	9:00 AM	23	0	0	0	0	0	0	96	27	5	22	0	*173*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	129	0	4	1	0	0	0	754	225	22	154	1	*1,290*
7:15 AM	---	8:15 AM	132	0	3	1	0	0	1	833	242	24	177	1	*1,414*
7:30 AM	---	8:30 AM	124	0	4	1	1	0	1	793	239	27	171	1	*1,362*
7:45 AM	---	8:45 AM	105	0	1	2	1	0	1	619	199	30	149	0	*1,107*
8:00 AM	---	9:00 AM	95	0	1	2	1	0	1	494	163	29	124	0	*910*

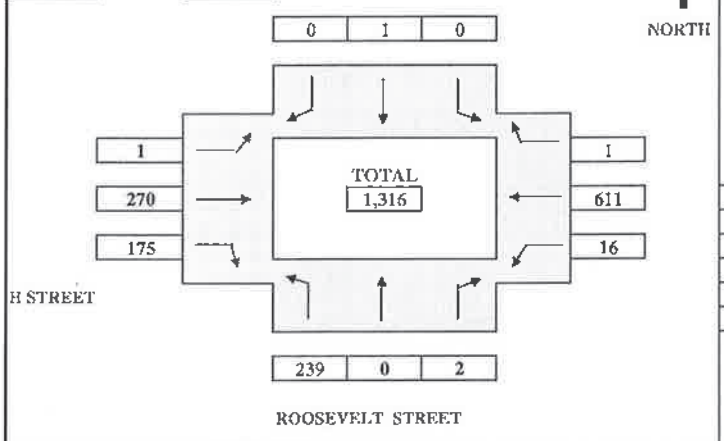
Telephone: (510)232-1271 Fax: (510)232-1272

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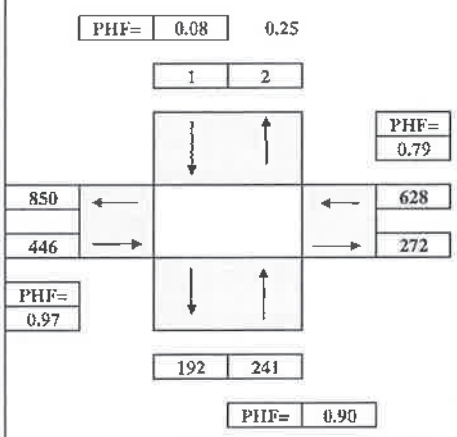
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	H STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	ROOSEVELT STREET	CITY:	FRESNO	FILE:	2911072-58PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	55	0	0	1	0	0	0	61	47	5	79	0	*248*
4:15 PM	---	4:30 PM	113	0	2	1	0	0	0	125	96	8	177	0	*522*
4:30 PM	---	4:45 PM	176	0	2	1	0	0	0	193	141	14	338	0	*865*
4:45 PM	---	5:00 PM	243	0	2	1	1	0	1	265	183	17	533	1	*1,247*
5:00 PM	---	5:15 PM	294	0	2	1	1	0	1	331	222	21	690	1	*1,564*
5:15 PM	---	5:30 PM	327	0	3	1	1	0	1	385	251	26	786	1	*1,782*
5:30 PM	---	5:45 PM	369	0	3	1	2	0	2	446	287	30	917	1	*2,058*
5:45 PM	---	6:00 PM	406	0	3	1	2	0	2	503	314	34	1,042	1	*2,308*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	55	0	0	1	0	0	0	61	47	5	79	0	*248*
4:15 PM	---	4:30 PM	58	0	2	0	0	0	0	64	49	3	98	0	*274*
4:30 PM	---	4:45 PM	63	0	0	0	0	0	0	68	45	6	161	0	*343*
4:45 PM	---	5:00 PM	67	0	0	0	1	0	1	72	42	3	195	1	*382*
5:00 PM	---	5:15 PM	51	0	0	0	0	0	0	66	39	4	157	0	*317*
5:15 PM	---	5:30 PM	33	0	1	0	0	0	0	54	29	5	96	0	*218*
5:30 PM	---	5:45 PM	42	0	0	0	1	0	1	61	36	4	131	0	*276*
5:45 PM	---	6:00 PM	37	0	0	0	0	0	0	57	27	4	125	0	*250*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	243	0	2	1	1	0	1	265	183	17	533	1	*1,247*
4:15 PM	---	5:15 PM	239	0	2	0	1	0	1	270	175	16	611	1	*1,316*
4:30 PM	---	5:30 PM	214	0	1	0	1	0	1	260	155	18	609	1	*1,260*
4:45 PM	---	5:45 PM	193	0	1	0	2	0	2	253	146	16	579	1	*1,193*
5:00 PM	---	6:00 PM	163	0	1	0	1	0	1	238	131	17	509	0	*1,061*

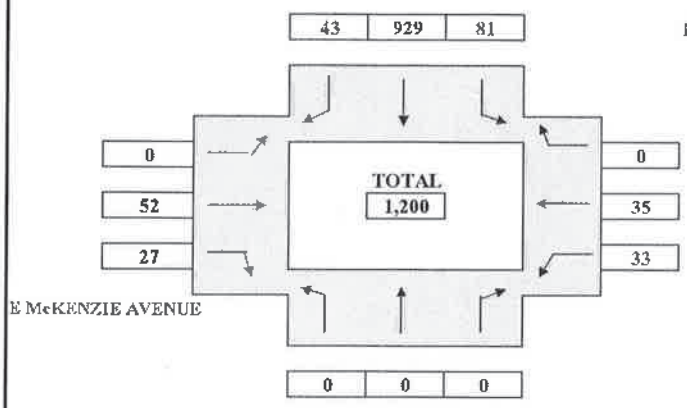
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

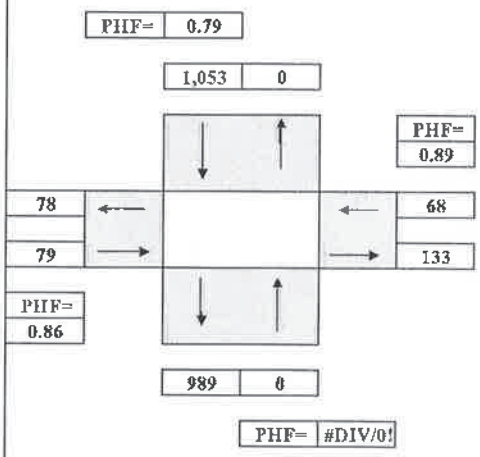
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N BLACKSTONE AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	E McKENZIE AVENUE	CITY:	FRESNO	FILE:	2911072-25AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	15	135	5	0	13	3	1	5	0	*177*
7:15 AM	---	7:30 AM	0	0	0	36	284	11	0	26	8	7	7	0	*379*
7:30 AM	---	7:45 AM	0	0	0	52	492	16	0	44	13	11	19	0	*647*
7:45 AM	---	8:00 AM	0	0	0	80	786	26	0	58	19	24	24	0	*1,017*
8:00 AM	---	8:15 AM	0	0	0	102	1,012	43	0	69	25	33	34	0	*1,318*
8:15 AM	---	8:30 AM	0	0	0	117	1,213	54	0	78	35	40	42	0	*1,579*
8:30 AM	---	8:45 AM	0	0	0	134	1,341	64	0	93	41	43	50	0	*1,766*
8:45 AM	---	9:00 AM	0	0	0	149	1,486	67	0	112	48	57	57	0	*1,976*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	15	135	5	0	13	3	1	5	0	*177*
7:15 AM	---	7:30 AM	0	0	0	21	149	6	0	13	5	6	2	0	*202*
7:30 AM	---	7:45 AM	0	0	0	16	208	5	0	18	5	4	12	0	*268*
7:45 AM	---	8:00 AM	0	0	0	28	294	10	0	14	6	13	5	0	*370*
8:00 AM	---	8:15 AM	0	0	0	22	226	17	0	11	6	9	10	0	*301*
8:15 AM	---	8:30 AM	0	0	0	15	201	11	0	9	10	7	8	0	*261*
8:30 AM	---	8:45 AM	0	0	0	17	128	10	0	15	6	3	8	0	*187*
8:45 AM	---	9:00 AM	0	0	0	15	145	3	0	19	7	14	7	0	*210*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	80	786	26	0	58	19	24	24	0	*1,017*
7:15 AM	---	8:15 AM	0	0	0	87	877	38	0	56	22	32	29	0	*1,141*
7:30 AM	---	8:30 AM	0	0	0	81	929	43	0	52	27	33	35	0	*1,200*
7:45 AM	---	8:45 AM	0	0	0	82	849	48	0	49	28	32	31	0	*1,119*
8:00 AM	---	9:00 AM	0	0	0	69	700	41	0	54	29	33	33	0	*959*

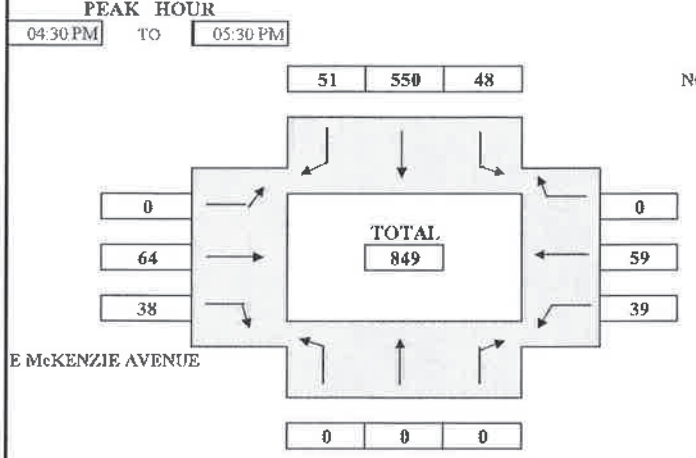
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B.A.Y.M.E.T.R.I.C.S.

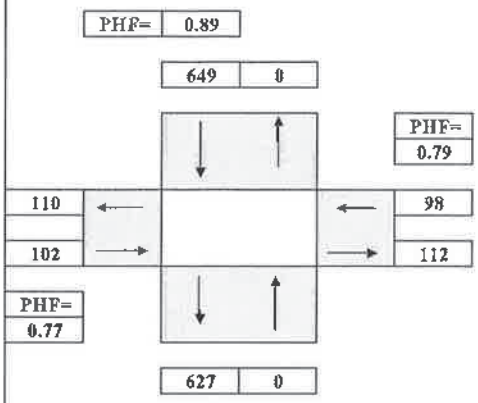
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N BLACKSTONE AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	E McKENZIE AVENUE	CITY:	FRESNO	FILE:	2911072-25PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	11	125	16	0	13	5	10	8	0	*188*
4:15 PM	---	4:30 PM	0	0	0	15	238	28	0	27	11	15	22	0	*356*
4:30 PM	---	4:45 PM	0	0	0	29	385	37	0	43	20	23	35	0	*572*
4:45 PM	---	5:00 PM	0	0	0	44	501	52	0	66	30	35	52	0	*780*
5:00 PM	---	5:15 PM	0	0	0	54	658	67	0	80	35	42	62	0	*998*
5:15 PM	---	5:30 PM	0	0	0	63	788	79	0	91	49	54	81	0	*1,205*
5:30 PM	---	5:45 PM	0	0	0	77	898	91	0	112	57	63	95	0	*1,393*
5:45 PM	---	6:00 PM	0	0	0	92	987	98	0	137	64	66	109	0	*1,553*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	11	125	16	0	13	5	10	8	0	*188*
4:15 PM	---	4:30 PM	0	0	0	4	113	12	0	14	6	5	14	0	*168*
4:30 PM	---	4:45 PM	0	0	0	14	147	9	0	16	9	8	13	0	*216*
4:45 PM	---	5:00 PM	0	0	0	15	116	15	0	23	10	12	17	0	*208*
5:00 PM	---	5:15 PM	0	0	0	10	157	15	0	14	5	7	10	0	*218*
5:15 PM	---	5:30 PM	0	0	0	9	130	12	0	11	14	12	19	0	*207*
5:30 PM	---	5:45 PM	0	0	0	14	110	12	0	21	8	9	14	0	*188*
5:45 PM	---	6:00 PM	0	0	0	15	89	7	0	25	7	3	14	0	*160*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	44	501	52	0	66	30	35	52	0	*780*
4:15 PM	---	5:15 PM	0	0	0	43	533	51	0	67	30	32	54	0	*810*
4:30 PM	---	5:30 PM	0	0	0	48	550	51	0	64	38	39	59	0	*849*
4:45 PM	---	5:45 PM	0	0	0	48	513	54	0	69	37	40	60	0	*821*
5:00 PM	---	6:00 PM	0	0	0	48	486	46	0	71	34	31	57	0	*773*

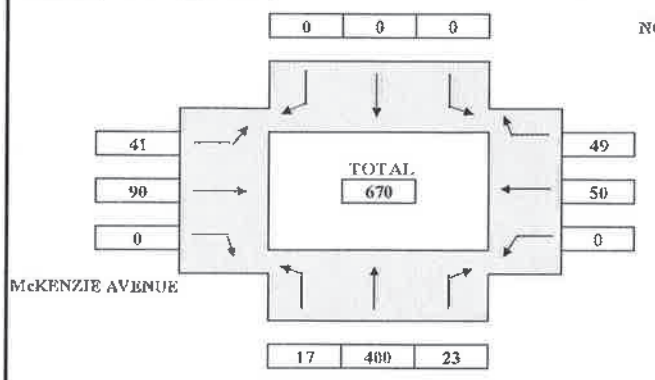
Telephone: (510)232-1271 Fax: (510)232-1272

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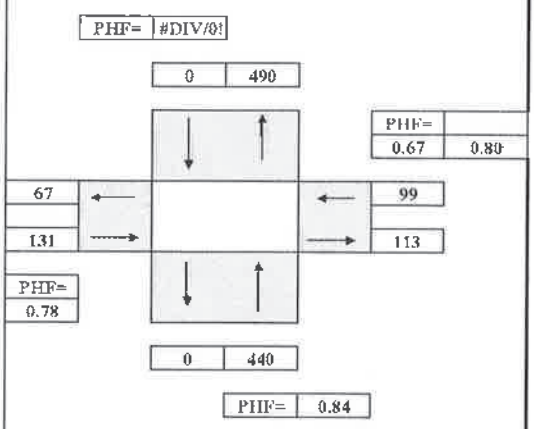
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N ABBY STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	McKENZIE AVENUE	CITY:	FRESNO	FILE:	2911072-31AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	1	50	5	0	0	0	11	17	0	0	5	10	*99*
7:15 AM	---	7:30 AM	2	112	6	0	0	0	21	41	0	0	12	21	*215*
7:30 AM	---	7:45 AM	6	216	8	0	0	0	38	58	0	0	24	40	*390*
7:45 AM	---	8:00 AM	11	301	13	0	0	0	44	94	0	0	36	49	*548*
8:00 AM	---	8:15 AM	13	418	25	0	0	0	55	114	0	0	53	57	*735*
8:15 AM	---	8:30 AM	19	512	29	0	0	0	62	131	0	0	62	70	*885*
8:30 AM	---	8:45 AM	20	597	32	0	0	0	72	153	0	0	72	79	*1,025*
8:45 AM	---	9:00 AM	23	695	39	0	0	0	84	175	0	0	88	100	*1,204*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	1	50	5	0	0	0	11	17	0	0	5	10	*99*
7:15 AM	---	7:30 AM	1	62	1	0	0	0	10	24	0	0	7	11	*116*
7:30 AM	---	7:45 AM	4	104	2	0	0	0	17	17	0	0	12	19	*175*
7:45 AM	---	8:00 AM	5	85	5	0	0	0	6	36	0	0	12	9	*158*
8:00 AM	---	8:15 AM	2	117	12	0	0	0	11	20	0	0	17	8	*187*
8:15 AM	---	8:30 AM	6	94	4	0	0	0	7	17	0	0	9	13	*150*
8:30 AM	---	8:45 AM	1	85	3	0	0	0	10	22	0	0	10	9	*140*
8:45 AM	---	9:00 AM	3	98	7	0	0	0	12	22	0	0	16	21	*179*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	11	301	13	0	0	0	44	94	0	0	36	49	*548*
7:15 AM	---	8:15 AM	12	368	20	0	0	0	44	97	0	0	48	47	*636*
7:30 AM	---	8:30 AM	17	400	23	0	0	0	41	90	0	0	50	49	*670*
7:45 AM	---	8:45 AM	14	381	24	0	0	0	34	95	0	0	48	39	*635*
8:00 AM	---	9:00 AM	12	394	26	0	0	0	40	81	0	0	52	51	*656*

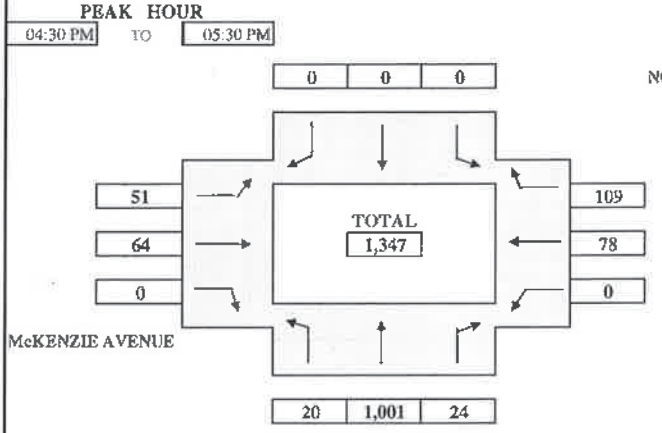
Telephone: (510)232-1271 Fax: (510)232-1272

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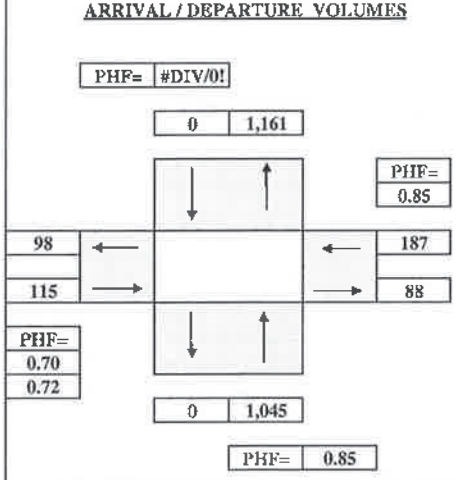
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N ABBY STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	McKENZIE AVENUE	CITY:	FRESNO	FILE:	2911072-31PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	2	204	12	0	0	0	13	11	0	0	15	21	*278*
4:15 PM	---	4:30 PM	6	367	17	0	0	0	24	18	0	0	30	36	*498*
4:30 PM	---	4:45 PM	13	619	23	0	0	0	39	34	0	0	44	64	*836*
4:45 PM	---	5:00 PM	17	835	30	0	0	0	55	58	0	0	69	92	*1,156*
5:00 PM	---	5:15 PM	21	1,130	37	0	0	0	66	71	0	0	82	116	*1,523*
5:15 PM	---	5:30 PM	26	1,368	41	0	0	0	75	82	0	0	108	145	*1,845*
5:30 PM	---	5:45 PM	33	1,539	49	0	0	0	93	99	0	0	123	164	*2,100*
5:45 PM	---	6:00 PM	35	1,645	52	0	0	0	123	110	0	0	138	189	*2,292*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	2	204	12	0	0	0	13	11	0	0	15	21	*278*
4:15 PM	---	4:30 PM	4	163	5	0	0	0	11	7	0	0	15	15	*220*
4:30 PM	---	4:45 PM	7	252	6	0	0	0	15	16	0	0	14	28	*338*
4:45 PM	---	5:00 PM	4	216	7	0	0	0	16	24	0	0	25	28	*320*
5:00 PM	---	5:15 PM	4	295	7	0	0	0	11	13	0	0	13	24	*367*
5:15 PM	---	5:30 PM	5	238	4	0	0	0	9	11	0	0	26	29	*322*
5:30 PM	---	5:45 PM	7	171	8	0	0	0	18	17	0	0	15	19	*255*
5:45 PM	---	6:00 PM	2	106	3	0	0	0	30	11	0	0	15	25	*192*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	17	835	30	0	0	0	55	58	0	0	69	92	*1,156*
4:15 PM	---	5:15 PM	19	926	25	0	0	0	53	60	0	0	67	95	*1,245*
4:30 PM	---	5:30 PM	20	1,001	24	0	0	0	51	64	0	0	78	109	*1,347*
4:45 PM	---	5:45 PM	20	920	26	0	0	0	54	65	0	0	79	100	*1,264*
5:00 PM	---	6:00 PM	18	810	22	0	0	0	68	52	0	0	69	97	*1,136*

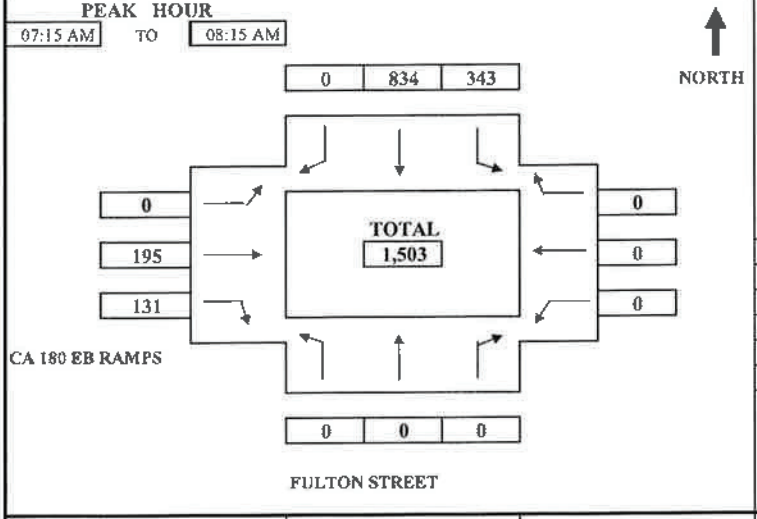
Telephone: (510)232-1271 Fax: (510)232-1272

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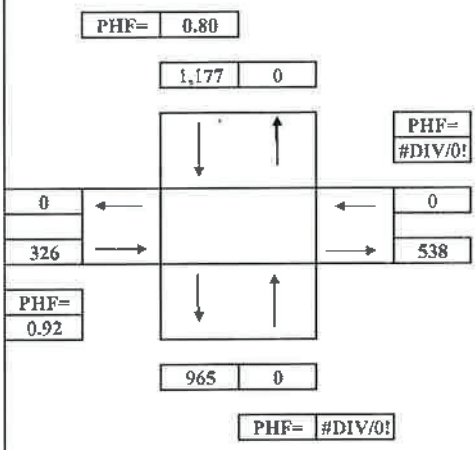
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	FULTON STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	CA 180 EB RAMPS	CITY:	FRESNO	FILE:	2911072-7AM

PEAK HOUR: 07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	67	107	0	0	24	15	0	0	0	*213*
7:15 AM	---	7:30 AM	0	0	0	148	305	0	0	69	46	0	0	0	*568*
7:30 AM	---	7:45 AM	0	0	0	241	499	0	0	127	77	0	0	0	*944*
7:45 AM	---	8:00 AM	0	0	0	332	777	0	0	173	114	0	0	0	*1,396*
8:00 AM	---	8:15 AM	0	0	0	410	941	0	0	219	146	0	0	0	*1,716*
8:15 AM	---	8:30 AM	0	0	0	461	1,085	0	0	253	179	0	0	0	*1,978*
8:30 AM	---	8:45 AM	0	0	0	511	1,192	0	0	301	201	0	0	0	*2,205*
8:45 AM	---	9:00 AM	0	0	0	565	1,296	0	0	333	224	0	0	0	*2,418*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	67	107	0	0	24	15	0	0	0	*213*
7:15 AM	---	7:30 AM	0	0	0	81	198	0	0	45	31	0	0	0	*355*
7:30 AM	---	7:45 AM	0	0	0	93	194	0	0	58	31	0	0	0	*376*
7:45 AM	---	8:00 AM	0	0	0	91	278	0	0	46	37	0	0	0	*452*
8:00 AM	---	8:15 AM	0	0	0	78	164	0	0	46	32	0	0	0	*320*
8:15 AM	---	8:30 AM	0	0	0	51	144	0	0	34	33	0	0	0	*262*
8:30 AM	---	8:45 AM	0	0	0	50	107	0	0	48	22	0	0	0	*227*
8:45 AM	---	9:00 AM	0	0	0	54	104	0	0	32	23	0	0	0	*213*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	332	777	0	0	173	114	0	0	0	*1,396*
7:15 AM	---	8:15 AM	0	0	0	343	834	0	0	195	131	0	0	0	*1,503*
7:30 AM	---	8:30 AM	0	0	0	313	780	0	0	184	133	0	0	0	*1,410*
7:45 AM	---	8:45 AM	0	0	0	270	693	0	0	174	124	0	0	0	*1,261*
8:00 AM	---	9:00 AM	0	0	0	233	519	0	0	160	110	0	0	0	*1,022*

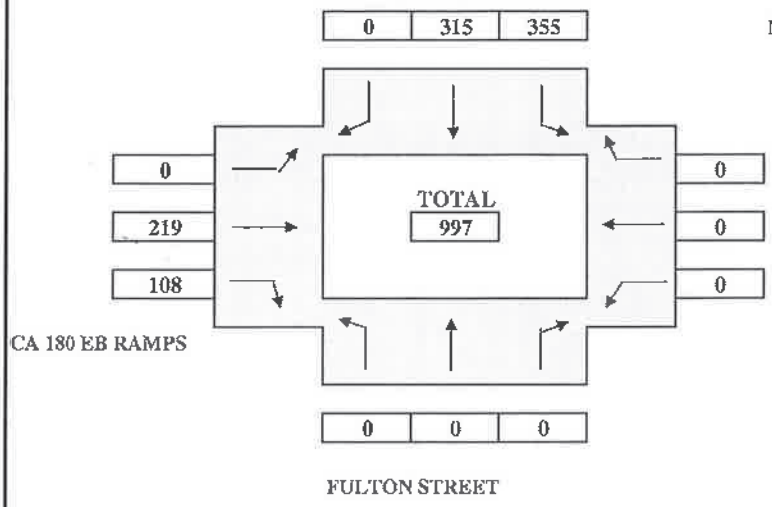
Telephone: (510)232-1271 Fax: (510)232-1272

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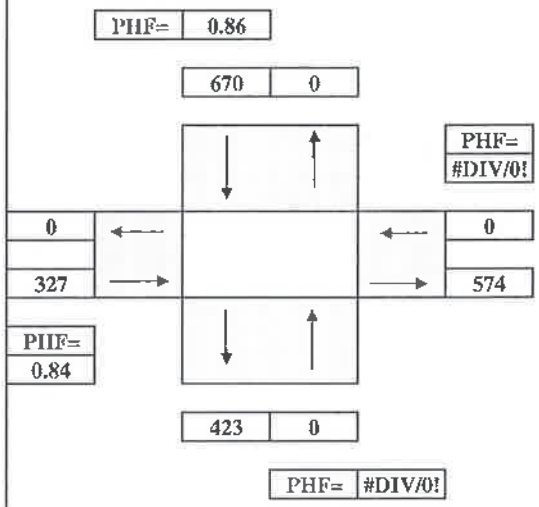
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	FULTON STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	CA 180 EB RAMPS	CITY:	FRESNO	FILE:	2911072-7PM

PEAK HOUR
05:00 PM TO 06:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	59	77	0	0	32	29	0	0	0	*197*
4:15 PM	---	4:30 PM	0	0	0	127	164	0	0	61	52	0	0	0	*404*
4:30 PM	---	4:45 PM	0	0	0	215	231	0	0	107	86	0	0	0	*639*
4:45 PM	---	5:00 PM	0	0	0	289	301	0	0	140	108	0	0	0	*838*
5:00 PM	---	5:15 PM	0	0	0	397	387	0	0	193	136	0	0	0	*1,113*
5:15 PM	---	5:30 PM	0	0	0	488	458	0	0	249	162	0	0	0	*1,357*
5:30 PM	---	5:45 PM	0	0	0	566	541	0	0	292	186	0	0	0	*1,585*
5:45 PM	---	6:00 PM	0	0	0	644	616	0	0	359	216	0	0	0	*1,835*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	59	77	0	0	32	29	0	0	0	*197*
4:15 PM	---	4:30 PM	0	0	0	68	87	0	0	29	23	0	0	0	*207*
4:30 PM	---	4:45 PM	0	0	0	88	67	0	0	46	34	0	0	0	*235*
4:45 PM	---	5:00 PM	0	0	0	74	70	0	0	33	22	0	0	0	*199*
5:00 PM	---	5:15 PM	0	0	0	108	86	0	0	53	28	0	0	0	*275*
5:15 PM	---	5:30 PM	0	0	0	91	71	0	0	56	26	0	0	0	*244*
5:30 PM	---	5:45 PM	0	0	0	78	83	0	0	43	24	0	0	0	*228*
5:45 PM	---	6:00 PM	0	0	0	78	75	0	0	67	30	0	0	0	*250*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	289	301	0	0	140	108	0	0	0	*838*
4:15 PM	---	5:15 PM	0	0	0	338	310	0	0	161	107	0	0	0	*916*
4:30 PM	---	5:30 PM	0	0	0	361	294	0	0	188	110	0	0	0	*953*
4:45 PM	---	5:45 PM	0	0	0	351	310	0	0	185	100	0	0	0	*946*
5:00 PM	---	6:00 PM	0	0	0	355	315	0	0	219	108	0	0	0	*997*

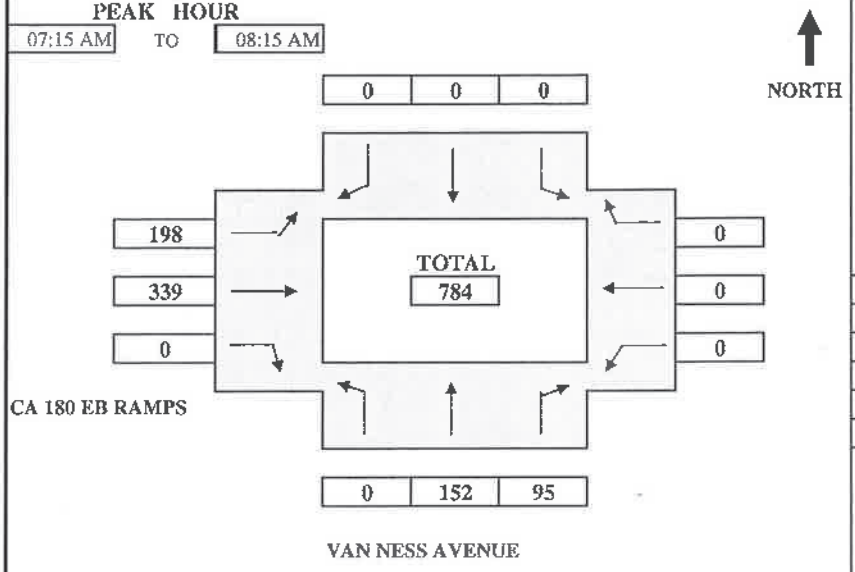
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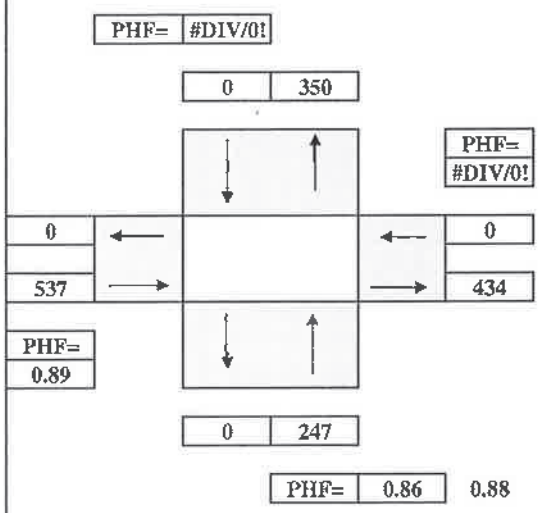
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	CA 180 EB RAMPS	CITY:	FRESNO	FILE:	2911072-10AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	27	12	0	0	0	25	65	0	0	0	0	*129*
7:15 AM	---	7:30 AM	0	58	31	0	0	0	70	145	0	0	0	0	*304*
7:30 AM	---	7:45 AM	0	101	58	0	0	0	129	237	0	0	0	0	*525*
7:45 AM	---	8:00 AM	0	138	83	0	0	0	175	328	0	0	0	0	*724*
8:00 AM	---	8:15 AM	0	179	107	0	0	0	223	404	0	0	0	0	*913*
8:15 AM	---	8:30 AM	0	218	128	0	0	0	256	457	0	0	0	0	*1,059*
8:30 AM	---	8:45 AM	0	259	159	0	0	0	305	505	0	0	0	0	*1,228*
8:45 AM	---	9:00 AM	0	293	183	0	0	0	338	557	0	0	0	0	*1,371*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	27	12	0	0	0	25	65	0	0	0	0	*129*
7:15 AM	---	7:30 AM	0	31	19	0	0	0	45	80	0	0	0	0	*175*
7:30 AM	---	7:45 AM	0	43	27	0	0	0	59	92	0	0	0	0	*221*
7:45 AM	---	8:00 AM	0	37	25	0	0	0	46	91	0	0	0	0	*199*
8:00 AM	---	8:15 AM	0	41	24	0	0	0	48	76	0	0	0	0	*189*
8:15 AM	---	8:30 AM	0	39	21	0	0	0	33	53	0	0	0	0	*146*
8:30 AM	---	8:45 AM	0	41	31	0	0	0	49	48	0	0	0	0	*169*
8:45 AM	---	9:00 AM	0	34	24	0	0	0	33	52	0	0	0	0	*143*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	138	83	0	0	0	175	328	0	0	0	0	*724*
7:15 AM	---	8:15 AM	0	152	95	0	0	0	198	339	0	0	0	0	*784*
7:30 AM	---	8:30 AM	0	160	97	0	0	0	186	312	0	0	0	0	*755*
7:45 AM	---	8:45 AM	0	158	101	0	0	0	176	268	0	0	0	0	*703*
8:00 AM	---	9:00 AM	0	155	100	0	0	0	163	229	0	0	0	0	*647*

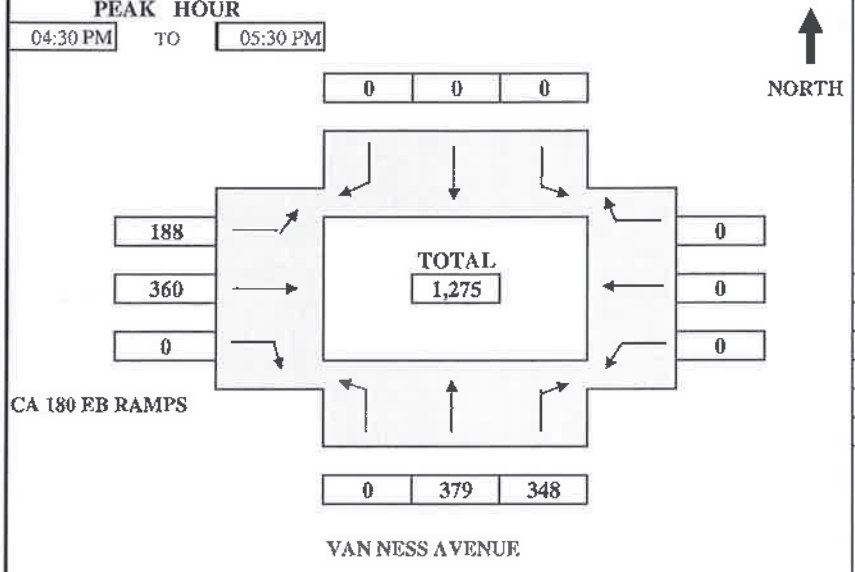
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

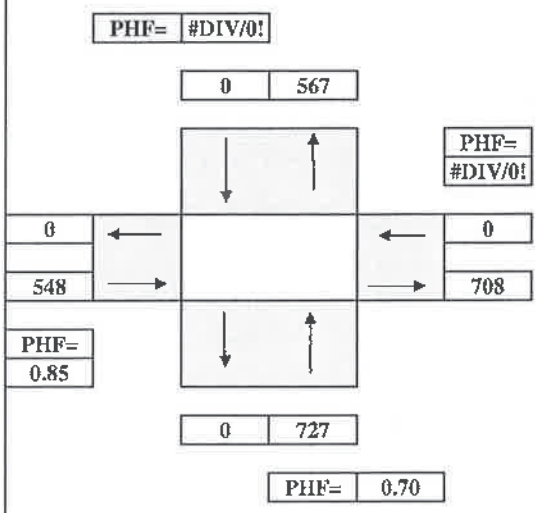
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	CA 180 EB RAMPS	CITY:	FRESNO	FILE:	2911072-10PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	87	77	0	0	0	32	58	0	0	0	0	*254*
4:15 PM	---	4:30 PM	0	160	142	0	0	0	61	126	0	0	0	0	*489*
4:30 PM	---	4:45 PM	0	241	235	0	0	0	107	213	0	0	0	0	*796*
4:45 PM	---	5:00 PM	0	314	306	0	0	0	140	287	0	0	0	0	*1,047*
5:00 PM	---	5:15 PM	0	465	415	0	0	0	193	395	0	0	0	0	*1,468*
5:15 PM	---	5:30 PM	0	539	490	0	0	0	249	486	0	0	0	0	*1,764*
5:30 PM	---	5:45 PM	0	608	560	0	0	0	292	564	0	0	0	0	*2,024*
5:45 PM	---	6:00 PM	0	671	603	0	0	0	359	643	0	0	0	0	*2,276*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	87	77	0	0	0	32	58	0	0	0	0	*254*
4:15 PM	---	4:30 PM	0	73	65	0	0	0	29	68	0	0	0	0	*235*
4:30 PM	---	4:45 PM	0	81	93	0	0	0	46	87	0	0	0	0	*307*
4:45 PM	---	5:00 PM	0	73	71	0	0	0	33	74	0	0	0	0	*251*
5:00 PM	---	5:15 PM	0	151	109	0	0	0	53	108	0	0	0	0	*421*
5:15 PM	---	5:30 PM	0	74	75	0	0	0	56	91	0	0	0	0	*296*
5:30 PM	---	5:45 PM	0	69	70	0	0	0	43	78	0	0	0	0	*260*
5:45 PM	---	6:00 PM	0	63	43	0	0	0	67	79	0	0	0	0	*252*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	314	306	0	0	0	140	287	0	0	0	0	*1,047*
4:15 PM	---	5:15 PM	0	378	338	0	0	0	161	337	0	0	0	0	*1,214*
4:30 PM	---	5:30 PM	0	379	348	0	0	0	188	360	0	0	0	0	*1,275*
4:45 PM	---	5:45 PM	0	367	325	0	0	0	185	351	0	0	0	0	*1,228*
5:00 PM	---	6:00 PM	0	357	297	0	0	0	219	356	0	0	0	0	*1,229*

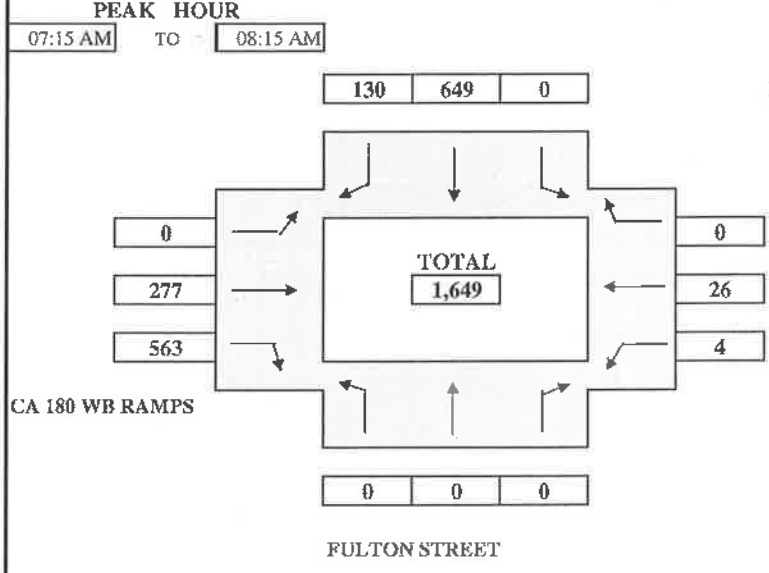
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

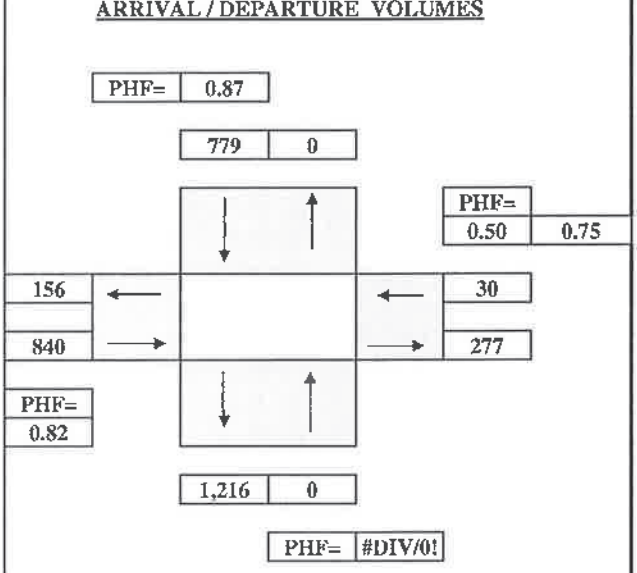
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	FULTON STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	CA 180 WB RAMPS	CITY:	FRESNO	FILE:	2911072-8AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	0	94	37	0	33	84	0	7	0	*255*
7:15 AM	---	7:30 AM	0	0	0	0	260	75	0	92	252	0	10	0	*689*
7:30 AM	---	7:45 AM	0	0	0	0	402	99	0	151	351	0	20	0	*1,023*
7:45 AM	---	8:00 AM	0	0	0	0	602	124	0	234	523	2	26	0	*1,511*
8:00 AM	---	8:15 AM	0	0	0	0	743	167	0	310	647	4	33	0	*1,904*
8:15 AM	---	8:30 AM	0	0	0	1	840	197	0	379	739	6	46	0	*2,208*
8:30 AM	---	8:45 AM	0	0	0	1	942	217	0	440	819	7	57	0	*2,483*
8:45 AM	---	9:00 AM	0	0	0	1	1,024	233	0	490	877	7	61	0	*2,693*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	0	94	37	0	33	84	0	7	0	*255*
7:15 AM	---	7:30 AM	0	0	0	0	166	38	0	59	168	0	3	0	*434*
7:30 AM	---	7:45 AM	0	0	0	0	142	24	0	59	99	0	10	0	*334*
7:45 AM	---	8:00 AM	0	0	0	0	200	25	0	83	172	2	6	0	*488*
8:00 AM	---	8:15 AM	0	0	0	0	141	43	0	76	124	2	7	0	*393*
8:15 AM	---	8:30 AM	0	0	0	1	97	30	0	69	92	2	13	0	*304*
8:30 AM	---	8:45 AM	0	0	0	0	102	20	0	61	80	1	11	0	*275*
8:45 AM	---	9:00 AM	0	0	0	0	82	16	0	50	58	0	4	0	*210*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	0	602	124	0	234	523	2	26	0	*1,511*
7:15 AM	---	8:15 AM	0	0	0	0	649	130	0	277	563	4	26	0	*1,649*
7:30 AM	---	8:30 AM	0	0	0	1	580	122	0	287	487	6	36	0	*1,519*
7:45 AM	---	8:45 AM	0	0	0	1	540	118	0	289	468	7	37	0	*1,460*
8:00 AM	---	9:00 AM	0	0	0	1	422	109	0	256	354	5	35	0	*1,182*

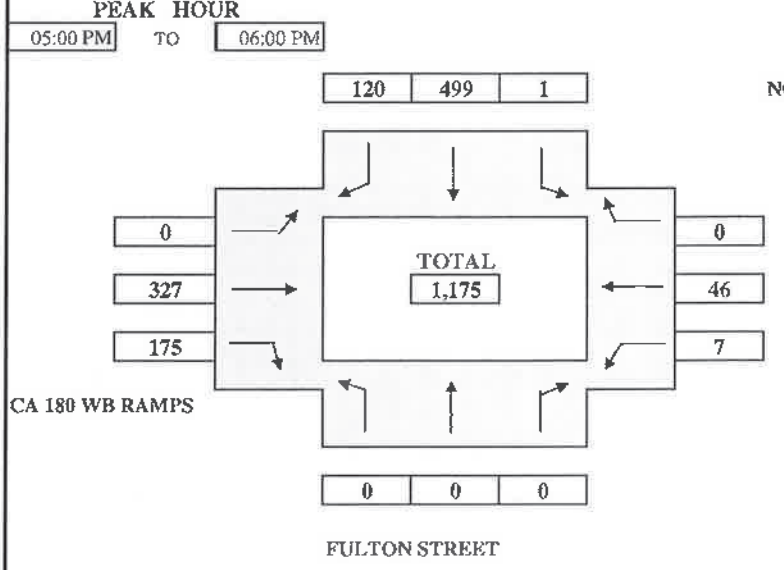
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

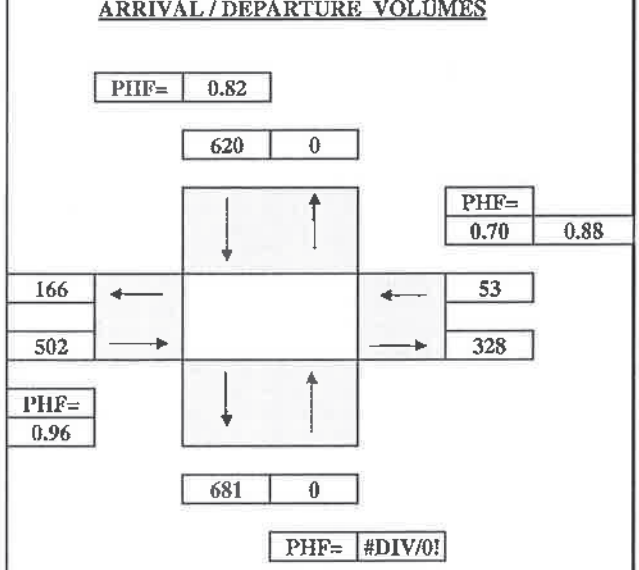
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	FULTON STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	CA 180 WB RAMPS	CITY:	FRESNO	FILE:	2911072-8PM

PEAK HOUR
05:00 PM TO 06:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	0	96	26	0	83	39	2	17	0	*263*
4:15 PM	---	4:30 PM	0	0	0	2	201	47	0	155	94	4	32	0	*535*
4:30 PM	---	4:45 PM	0	0	0	2	307	68	0	221	128	6	36	0	*768*
4:45 PM	---	5:00 PM	0	0	0	2	407	91	0	286	166	6	50	0	*1,008*
5:00 PM	---	5:15 PM	0	0	0	2	554	132	0	370	211	10	61	0	*1,340*
5:15 PM	---	5:30 PM	0	0	0	2	685	160	0	451	252	12	74	0	*1,636*
5:30 PM	---	5:45 PM	0	0	0	3	775	192	0	537	297	13	85	0	*1,902*
5:45 PM	---	6:00 PM	0	0	0	3	906	211	0	613	341	13	96	0	*2,183*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	0	96	26	0	83	39	2	17	0	*263*
4:15 PM	---	4:30 PM	0	0	0	2	105	21	0	72	55	2	15	0	*272*
4:30 PM	---	4:45 PM	0	0	0	0	106	21	0	66	34	2	4	0	*233*
4:45 PM	---	5:00 PM	0	0	0	0	100	23	0	65	38	0	14	0	*240*
5:00 PM	---	5:15 PM	0	0	0	0	147	41	0	84	45	4	11	0	*332*
5:15 PM	---	5:30 PM	0	0	0	0	131	28	0	81	41	2	13	0	*296*
5:30 PM	---	5:45 PM	0	0	0	1	90	32	0	86	45	1	11	0	*266*
5:45 PM	---	6:00 PM	0	0	0	0	131	19	0	76	44	0	11	0	*281*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	2	407	91	0	286	166	6	50	0	*1,008*
4:15 PM	---	5:15 PM	0	0	0	2	458	106	0	287	172	8	44	0	*1,077*
4:30 PM	---	5:30 PM	0	0	0	0	484	113	0	296	158	8	42	0	*1,101*
4:45 PM	---	5:45 PM	0	0	0	1	468	124	0	316	169	7	49	0	*1,134*
5:00 PM	---	6:00 PM	0	0	0	1	499	120	0	327	175	7	46	0	*1,175*

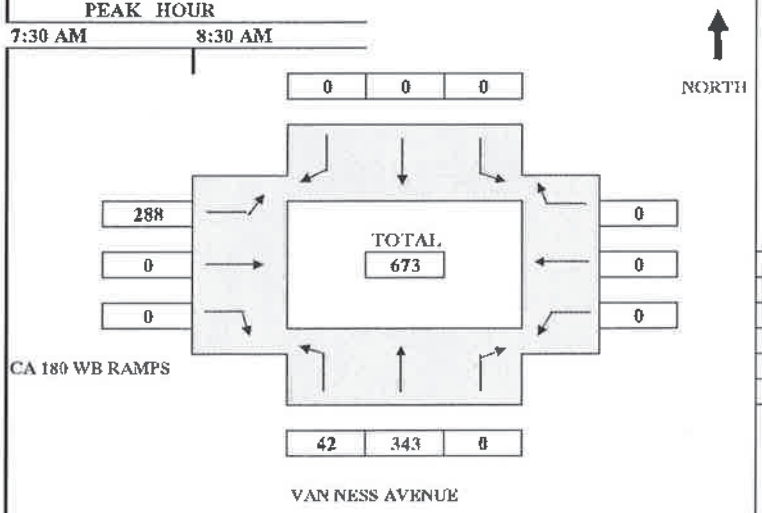
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

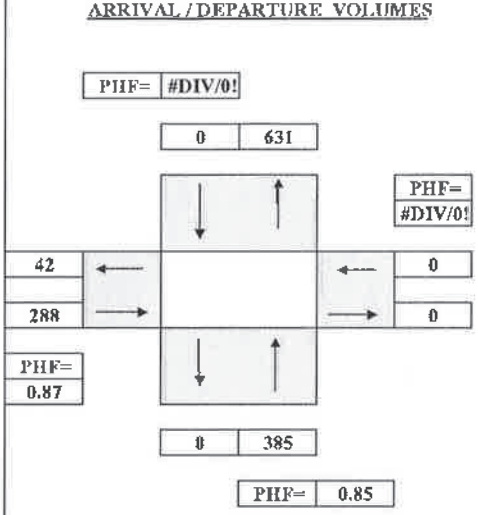
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	CA 180 WB RAMPS	CITY:	FRESNO	FILE:	2911072-11AM

PEAK HOUR
7:30 AM 8:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	7	48	0	0	0	0	35	0	0	0	0	0	*90*
7:15 AM	---	7:30 AM	11	124	0	0	0	0	94	0	0	0	0	0	*229*
7:30 AM	---	7:45 AM	21	227	0	0	0	0	153	0	0	0	0	0	*401*
7:45 AM	---	8:00 AM	29	308	0	0	0	0	236	0	0	0	0	0	*573*
8:00 AM	---	8:15 AM	38	399	0	0	0	0	312	0	0	0	0	0	*749*
8:15 AM	---	8:30 AM	53	467	0	0	0	0	382	0	0	0	0	0	*902*
8:30 AM	---	8:45 AM	65	551	0	0	0	0	443	0	0	0	0	0	*1,059*
8:45 AM	---	9:00 AM	71	620	0	0	0	0	493	0	0	0	0	0	*1,184*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	7	48	0	0	0	0	35	0	0	0	0	0	*90*
7:15 AM	---	7:30 AM	4	76	0	0	0	0	59	0	0	0	0	0	*139*
7:30 AM	---	7:45 AM	10	103	0	0	0	0	59	0	0	0	0	0	*172*
7:45 AM	---	8:00 AM	8	81	0	0	0	0	83	0	0	0	0	0	*172*
8:00 AM	---	8:15 AM	9	91	0	0	0	0	76	0	0	0	0	0	*176*
8:15 AM	---	8:30 AM	15	68	0	0	0	0	70	0	0	0	0	0	*153*
8:30 AM	---	8:45 AM	12	84	0	0	0	0	61	0	0	0	0	0	*157*
8:45 AM	---	9:00 AM	6	69	0	0	0	0	50	0	0	0	0	0	*125*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	29	308	0	0	0	0	236	0	0	0	0	0	*573*
7:15 AM	---	8:15 AM	31	351	0	0	0	0	277	0	0	0	0	0	*659*
7:30 AM	---	8:30 AM	42	343	0	0	0	0	288	0	0	0	0	0	*673*
7:45 AM	---	8:45 AM	44	324	0	0	0	0	290	0	0	0	0	0	*658*
8:00 AM	---	9:00 AM	42	312	0	0	0	0	257	0	0	0	0	0	*611*

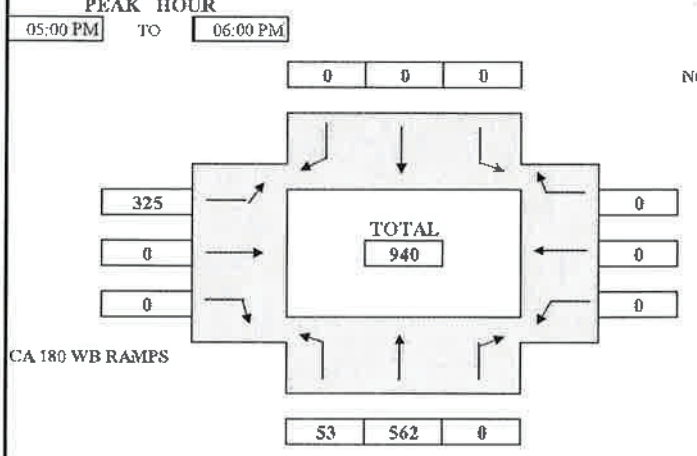
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

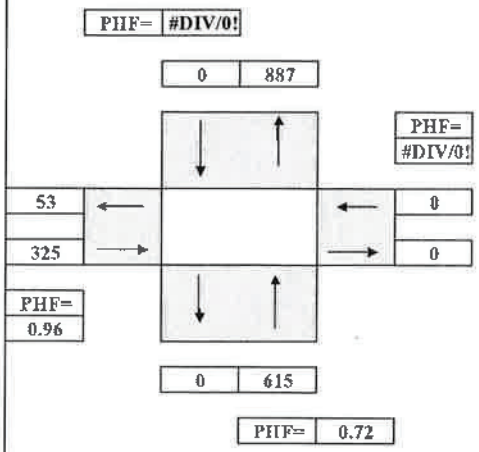
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	CA 180 WB RAMPS	CITY: FRESNO		FILE:	2911072-11PM

PEAK HOUR
05:00 PM TO 06:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	19	109	0	0	0	0	83	0	0	0	0	0	*211*
4:15 PM	---	4:30 PM	36	210	0	0	0	0	157	0	0	0	0	0	*403*
4:30 PM	---	4:45 PM	44	349	0	0	0	0	223	0	0	0	0	0	*616*
4:45 PM	---	5:00 PM	58	449	0	0	0	0	288	0	0	0	0	0	*795*
5:00 PM	---	5:15 PM	73	649	0	0	0	0	371	0	0	0	0	0	*1,093*
5:15 PM	---	5:30 PM	88	781	0	0	0	0	452	0	0	0	0	0	*1,321*
5:30 PM	---	5:45 PM	100	886	0	0	0	0	537	0	0	0	0	0	*1,523*
5:45 PM	---	6:00 PM	111	1,011	0	0	0	0	613	0	0	0	0	0	*1,735*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	19	109	0	0	0	0	83	0	0	0	0	0	*211*
4:15 PM	---	4:30 PM	17	101	0	0	0	0	74	0	0	0	0	0	*192*
4:30 PM	---	4:45 PM	8	139	0	0	0	0	66	0	0	0	0	0	*213*
4:45 PM	---	5:00 PM	14	100	0	0	0	0	65	0	0	0	0	0	*179*
5:00 PM	---	5:15 PM	15	200	0	0	0	0	83	0	0	0	0	0	*298*
5:15 PM	---	5:30 PM	15	132	0	0	0	0	81	0	0	0	0	0	*228*
5:30 PM	---	5:45 PM	12	105	0	0	0	0	85	0	0	0	0	0	*202*
5:45 PM	---	6:00 PM	11	125	0	0	0	0	76	0	0	0	0	0	*212*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	58	449	0	0	0	0	288	0	0	0	0	0	*795*
4:15 PM	---	5:15 PM	54	540	0	0	0	0	288	0	0	0	0	0	*882*
4:30 PM	---	5:30 PM	52	571	0	0	0	0	295	0	0	0	0	0	*918*
4:45 PM	---	5:45 PM	56	537	0	0	0	0	314	0	0	0	0	0	*907*
5:00 PM	---	6:00 PM	53	562	0	0	0	0	325	0	0	0	0	0	*940*

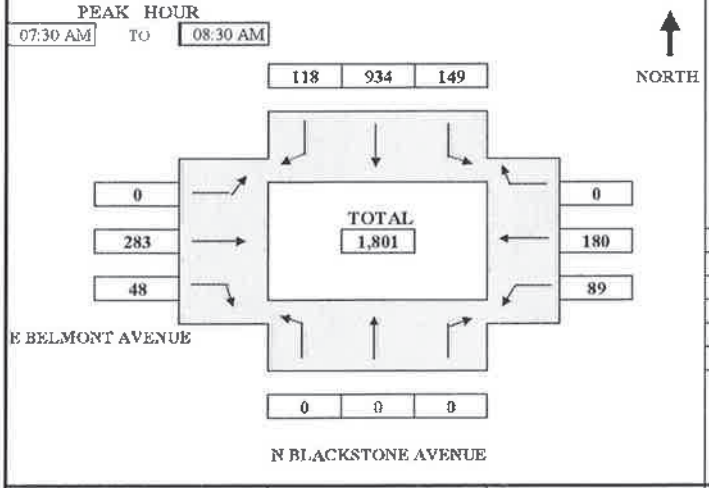
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

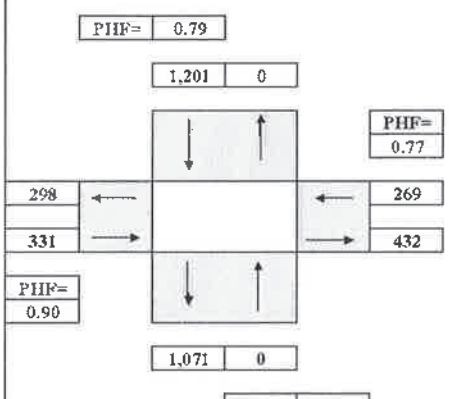
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N BLACKSTONE AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	E BELMONT AVENUE	CITY:	FRESNO	FILE:	2911072-24AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	15	142	11	0	40	3	3	14	0	*228*
7:15 AM	---	7:30 AM	0	0	0	50	333	29	0	97	10	14	52	0	*585*
7:30 AM	---	7:45 AM	0	0	0	86	529	48	0	168	18	32	90	0	*971*
7:45 AM	---	8:00 AM	0	0	0	135	820	90	0	242	36	63	146	0	*1,532*
8:00 AM	---	8:15 AM	0	0	0	170	1,091	125	0	307	48	89	187	0	*2,017*
8:15 AM	---	8:30 AM	0	0	0	199	1,267	147	0	380	58	103	232	0	*2,386*
8:30 AM	---	8:45 AM	0	0	0	236	1,402	168	0	440	69	114	284	0	*2,713*
8:45 AM	---	9:00 AM	0	0	0	268	1,561	187	0	524	77	128	336	0	*3,081*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	15	142	11	0	40	3	3	14	0	*228*
7:15 AM	---	7:30 AM	0	0	0	35	191	18	0	57	7	11	38	0	*357*
7:30 AM	---	7:45 AM	0	0	0	36	196	19	0	71	8	18	38	0	*386*
7:45 AM	---	8:00 AM	0	0	0	49	291	42	0	74	18	31	56	0	*561*
8:00 AM	---	8:15 AM	0	0	0	35	271	35	0	65	12	26	41	0	*485*
8:15 AM	---	8:30 AM	0	0	0	29	176	22	0	73	10	14	45	0	*369*
8:30 AM	---	8:45 AM	0	0	0	37	135	21	0	60	11	11	52	0	*327*
8:45 AM	---	9:00 AM	0	0	0	32	159	19	0	84	8	14	52	0	*368*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	135	820	90	0	242	36	63	146	0	*1,532*
7:15 AM	---	8:15 AM	0	0	0	155	949	114	0	267	45	86	173	0	*1,789*
7:30 AM	---	8:30 AM	0	0	0	149	934	118	0	283	48	89	180	0	*1,801*
7:45 AM	---	8:45 AM	0	0	0	150	873	120	0	272	51	82	194	0	*1,742*
8:00 AM	---	9:00 AM	0	0	0	133	741	97	0	282	41	65	190	0	*1,549*

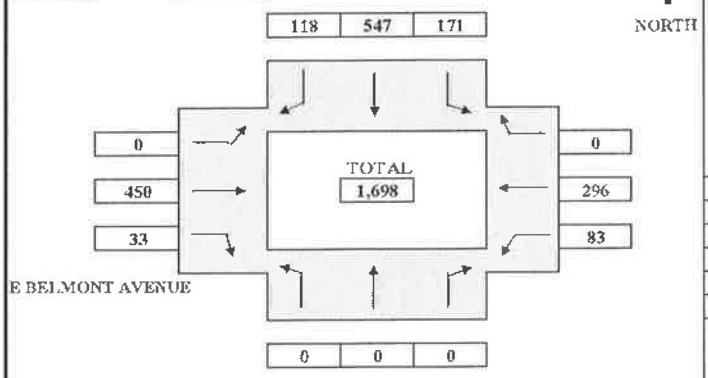
Telephone: (510)232-1271 Fax: (510)232-1272

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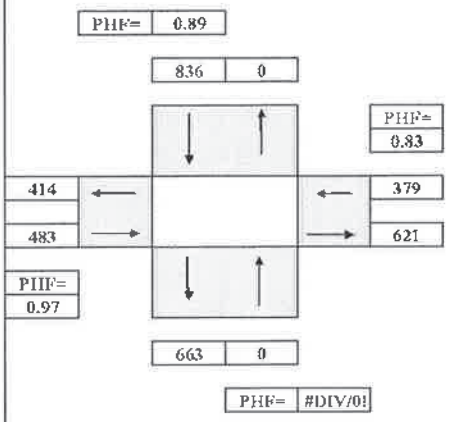
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N BLACKSTONE AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	E BELMONT AVENUE	CITY:	FRESNO	FILE:	2911072-24PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	34	132	21	0	105	7	17	58	0	*374*
4:15 PM	---	4:30 PM	0	0	0	63	242	50	0	208	18	29	125	0	*735*
4:30 PM	---	4:45 PM	0	0	0	110	391	81	0	324	25	48	188	0	*1,167*
4:45 PM	---	5:00 PM	0	0	0	153	505	117	0	440	34	71	269	0	*1,589*
5:00 PM	---	5:15 PM	0	0	0	191	679	141	0	554	41	81	338	0	*2,025*
5:15 PM	---	5:30 PM	0	0	0	234	789	168	0	658	51	112	421	0	*2,433*
5:30 PM	---	5:45 PM	0	0	0	268	903	187	0	716	57	128	488	0	*2,747*
5:45 PM	---	6:00 PM	0	0	0	307	989	217	0	778	68	143	549	0	*3,051*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	34	132	21	0	105	7	17	58	0	*374*
4:15 PM	---	4:30 PM	0	0	0	29	110	29	0	103	11	12	67	0	*361*
4:30 PM	---	4:45 PM	0	0	0	47	149	31	0	116	7	19	63	0	*432*
4:45 PM	---	5:00 PM	0	0	0	43	114	36	0	116	9	23	81	0	*422*
5:00 PM	---	5:15 PM	0	0	0	38	174	24	0	114	7	10	69	0	*436*
5:15 PM	---	5:30 PM	0	0	0	43	110	27	0	104	10	31	83	0	*408*
5:30 PM	---	5:45 PM	0	0	0	34	114	19	0	58	6	16	67	0	*314*
5:45 PM	---	6:00 PM	0	0	0	39	86	30	0	62	11	15	61	0	*304*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	153	505	117	0	440	34	71	269	0	*1,589*
4:15 PM	---	5:15 PM	0	0	0	157	547	120	0	449	34	64	280	0	*1,651*
4:30 PM	---	5:30 PM	0	0	0	171	547	118	0	450	33	83	296	0	*1,698*
4:45 PM	---	5:45 PM	0	0	0	158	512	106	0	392	32	80	300	0	*1,580*
5:00 PM	---	6:00 PM	0	0	0	154	484	100	0	338	34	72	280	0	*1,462*

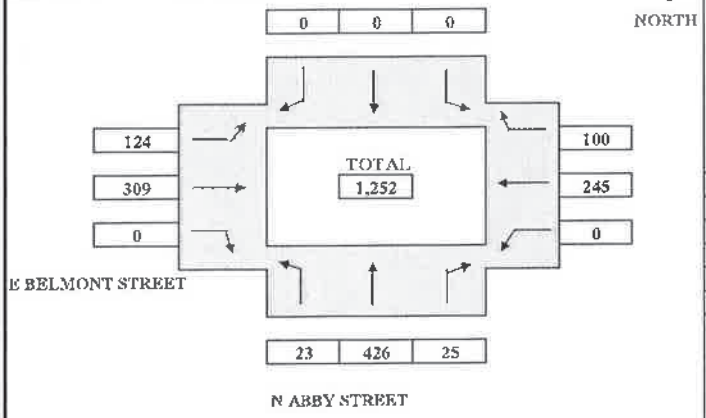
Telephone: (510)232-1271 Fax: (510)232-1272

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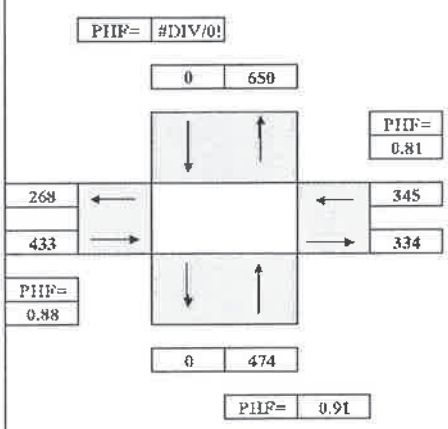
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N ABBY STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	E BELMONT STREET	CITY:	FRESNO	FILE:	2911072-30AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	5	64	3	0	0	0	14	47	0	0	31	19	*183*
7:15 AM	---	7:30 AM	8	132	6	0	0	0	31	122	0	0	66	49	*414*
7:30 AM	---	7:45 AM	12	248	14	0	0	0	55	205	0	0	118	75	*727*
7:45 AM	---	8:00 AM	16	369	16	0	0	0	84	299	0	0	199	100	*1,083*
8:00 AM	---	8:15 AM	24	484	23	0	0	0	109	374	0	0	258	122	*1,394*
8:15 AM	---	8:30 AM	31	558	31	0	0	0	155	431	0	0	311	149	*1,666*
8:30 AM	---	8:45 AM	39	669	34	0	0	0	172	511	0	0	366	181	*1,972*
8:45 AM	---	9:00 AM	41	781	39	0	0	0	198	601	0	0	430	211	*2,301*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	5	64	3	0	0	0	14	47	0	0	31	19	*183*
7:15 AM	---	7:30 AM	3	68	3	0	0	0	17	75	0	0	35	30	*231*
7:30 AM	---	7:45 AM	4	116	8	0	0	0	24	83	0	0	52	26	*313*
7:45 AM	---	8:00 AM	4	121	2	0	0	0	29	94	0	0	81	25	*356*
8:00 AM	---	8:15 AM	8	115	7	0	0	0	25	75	0	0	59	22	*311*
8:15 AM	---	8:30 AM	7	74	8	0	0	0	46	57	0	0	53	27	*272*
8:30 AM	---	8:45 AM	8	111	3	0	0	0	17	80	0	0	55	32	*306*
8:45 AM	---	9:00 AM	2	112	5	0	0	0	26	90	0	0	64	30	*329*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	16	369	16	0	0	0	84	299	0	0	199	100	*1,083*
7:15 AM	---	8:15 AM	19	420	20	0	0	0	95	327	0	0	227	103	*1,211*
7:30 AM	---	8:30 AM	23	426	25	0	0	0	124	309	0	0	245	100	*1,252*
7:45 AM	---	8:45 AM	27	421	20	0	0	0	117	306	0	0	248	106	*1,245*
8:00 AM	---	9:00 AM	25	412	23	0	0	0	114	302	0	0	231	111	*1,218*

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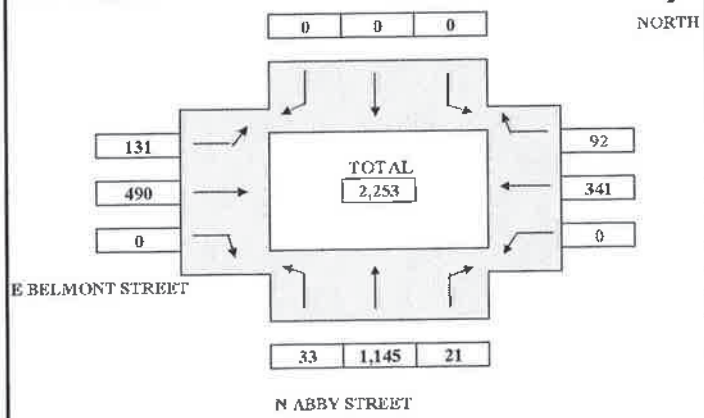
B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

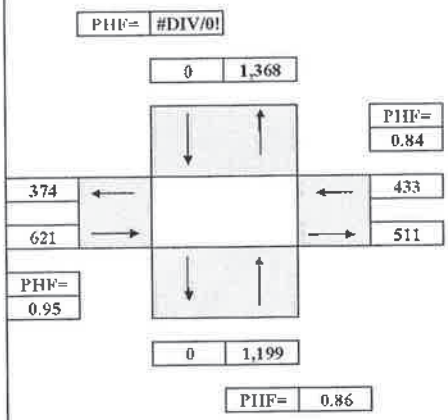
PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N ABBY STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	E BELMONT STREET	CITY:	FRESNO	FILE:	2911072-30PM

PEAK HOUR

4:30 PM	5:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	7	242	5	0	0	0	42	97	0	0	68	33	*494*
4:15 PM	---	4:30 PM	18	432	11	0	0	0	79	193	0	0	136	64	*933*
4:30 PM	---	4:45 PM	27	677	17	0	0	0	116	319	0	0	209	89	*1,454*
4:45 PM	---	5:00 PM	42	941	24	0	0	0	153	441	0	0	297	119	*2,017*
5:00 PM	---	5:15 PM	48	1,282	27	0	0	0	183	563	0	0	370	134	*2,607*
5:15 PM	---	5:30 PM	51	1,577	32	0	0	0	210	683	0	0	477	156	*3,186*
5:30 PM	---	5:45 PM	53	1,803	39	0	0	0	241	746	0	0	558	180	*3,620*
5:45 PM	---	6:00 PM	61	1,986	44	0	0	0	263	826	0	0	626	214	*4,020*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	7	242	5	0	0	0	42	97	0	0	68	33	*494*
4:15 PM	---	4:30 PM	11	190	6	0	0	0	37	96	0	0	68	31	*439*
4:30 PM	---	4:45 PM	9	245	6	0	0	0	37	126	0	0	73	25	*521*
4:45 PM	---	5:00 PM	15	264	7	0	0	0	37	122	0	0	88	30	*563*
5:00 PM	---	5:15 PM	6	341	3	0	0	0	30	122	0	0	73	15	*590*
5:15 PM	---	5:30 PM	3	295	5	0	0	0	27	120	0	0	107	22	*579*
5:30 PM	---	5:45 PM	2	226	7	0	0	0	31	63	0	0	81	24	*434*
5:45 PM	---	6:00 PM	8	183	5	0	0	0	22	80	0	0	68	34	*400*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	42	941	24	0	0	0	153	441	0	0	297	119	*2,017*
4:15 PM	---	5:15 PM	41	1,040	22	0	0	0	141	466	0	0	302	101	*2,113*
4:30 PM	---	5:30 PM	33	1,145	21	0	0	0	131	490	0	0	341	92	*2,253*
4:45 PM	---	5:45 PM	26	1,126	22	0	0	0	125	427	0	0	349	91	*2,166*
5:00 PM	---	6:00 PM	19	1,045	20	0	0	0	110	385	0	0	329	95	*2,003*

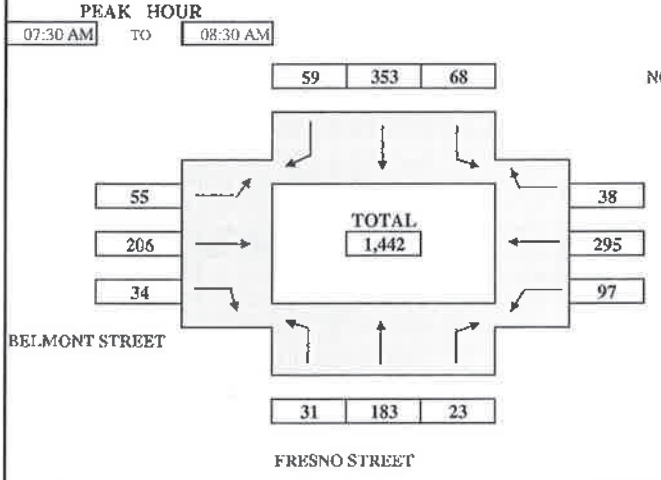
Telephone: (510)232-1271 Fax: (510)232-1272

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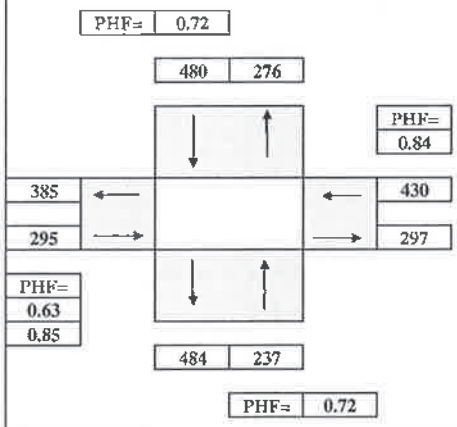
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	FRESNO STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	BELMONT STREET	CITY:	FRESNO	FILE:	2911072-79AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	6	29	5	9	52	10	14	29	5	12	30	12	*213*
7:15 AM	---	7:30 AM	13	68	11	24	101	28	41	58	13	28	67	20	*472*
7:30 AM	---	7:45 AM	17	138	19	39	177	42	66	114	19	60	138	30	*859*
7:45 AM	---	8:00 AM	27	187	25	65	302	58	79	163	26	80	226	41	*1,279*
8:00 AM	---	8:15 AM	30	211	32	81	386	75	88	222	40	110	308	57	*1,640*
8:15 AM	---	8:30 AM	44	251	34	92	454	87	96	264	47	125	362	58	*1,914*
8:30 AM	---	8:45 AM	54	292	40	112	516	111	113	323	57	144	421	72	*2,255*
8:45 AM	---	9:00 AM	66	339	58	121	593	121	134	405	71	158	478	80	*2,624*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	6	29	5	9	52	10	14	29	5	12	30	12	*213*
7:15 AM	---	7:30 AM	7	39	6	15	49	18	27	29	8	16	37	8	*259*
7:30 AM	---	7:45 AM	4	70	8	15	76	14	25	56	6	32	71	10	*387*
7:45 AM	---	8:00 AM	10	49	6	26	125	16	13	49	7	20	88	11	*420*
8:00 AM	---	8:15 AM	3	24	7	16	84	17	9	59	14	30	82	16	*361*
8:15 AM	---	8:30 AM	14	40	2	11	68	12	8	42	7	15	54	1	*274*
8:30 AM	---	8:45 AM	10	41	6	20	62	24	17	59	10	19	59	14	*341*
8:45 AM	---	9:00 AM	12	47	18	9	77	10	21	82	14	14	57	8	*369*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	27	187	25	65	302	58	79	163	26	80	226	41	*1,279*
7:15 AM	---	8:15 AM	24	182	27	72	334	65	74	193	35	98	278	45	*1,427*
7:30 AM	---	8:30 AM	31	183	23	68	353	59	55	206	34	97	295	38	*1,442*
7:45 AM	---	8:45 AM	37	154	21	73	339	69	47	209	38	84	283	42	*1,396*
8:00 AM	---	9:00 AM	39	152	33	56	291	63	55	242	45	78	252	39	*1,345*

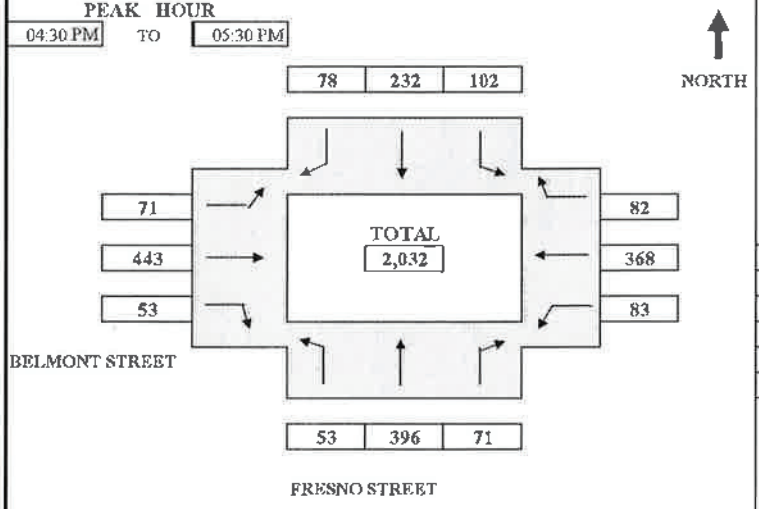
Telephone: (510)232-1271 Fax: (510)232-1272

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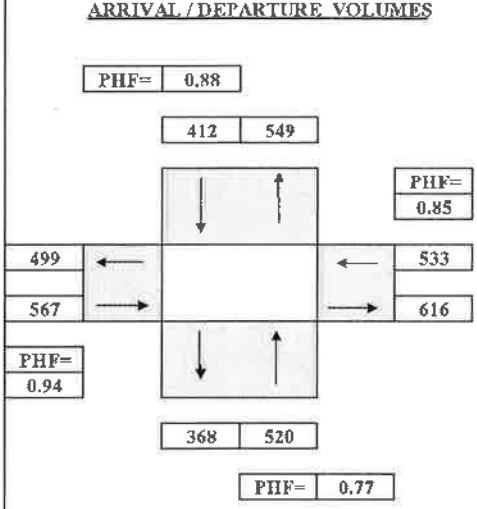
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	FRESNO STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	BELMONT STREET	CITY:	FRESNO	FILE:	2911072-79PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	17	108	17	36	61	14	30	101	16	17	90	22	*529*
4:15 PM	---	4:30 PM	22	184	32	55	123	33	42	173	29	37	152	35	*917*
4:30 PM	---	4:45 PM	32	271	54	84	172	52	59	291	39	57	238	50	*1,399*
4:45 PM	---	5:00 PM	46	350	71	113	240	72	82	402	52	79	349	74	*1,930*
5:00 PM	---	5:15 PM	59	483	93	139	308	88	102	515	70	101	434	92	*2,484*
5:15 PM	---	5:30 PM	75	580	103	157	355	111	113	616	82	120	520	117	*2,949*
5:30 PM	---	5:45 PM	84	659	119	186	410	125	135	691	89	136	610	133	*3,377*
5:45 PM	---	6:00 PM	104	723	136	201	461	147	149	767	97	146	680	149	*3,760*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	17	108	17	36	61	14	30	101	16	17	90	22	*529*
4:15 PM	---	4:30 PM	5	76	15	19	62	19	12	72	13	20	62	13	*388*
4:30 PM	---	4:45 PM	10	87	22	29	49	19	17	118	10	20	86	15	*482*
4:45 PM	---	5:00 PM	14	79	17	29	68	20	23	111	13	22	111	24	*531*
5:00 PM	---	5:15 PM	13	133	22	26	68	16	20	113	18	22	85	18	*554*
5:15 PM	---	5:30 PM	16	97	10	18	47	23	11	101	12	19	86	25	*465*
5:30 PM	---	5:45 PM	9	79	16	29	55	14	22	75	7	16	90	16	*428*
5:45 PM	---	6:00 PM	20	64	17	15	51	22	14	76	8	10	70	16	*383*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	46	350	71	113	240	72	82	402	52	79	349	74	*1,930*
4:15 PM	---	5:15 PM	42	375	76	103	247	74	72	414	54	84	344	70	*1,955*
4:30 PM	---	5:30 PM	53	396	71	102	232	78	71	443	53	83	368	82	*2,032*
4:45 PM	---	5:45 PM	52	388	65	102	238	73	76	400	50	79	372	83	*1,978*
5:00 PM	---	6:00 PM	58	373	65	88	221	75	67	365	45	67	331	75	*1,830*

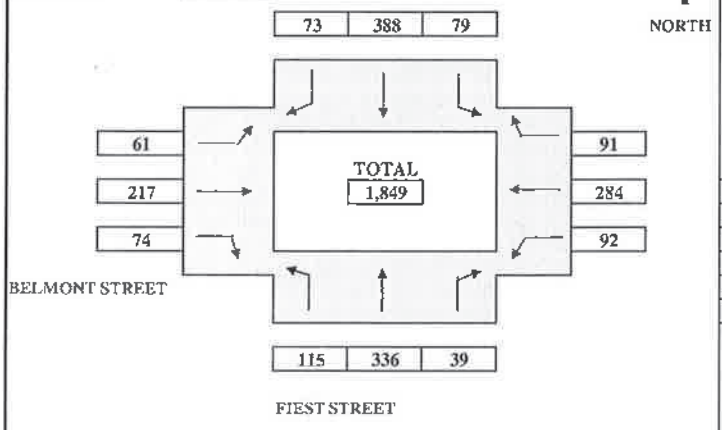
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B.A.Y.M.E.T.R.I.C.S.

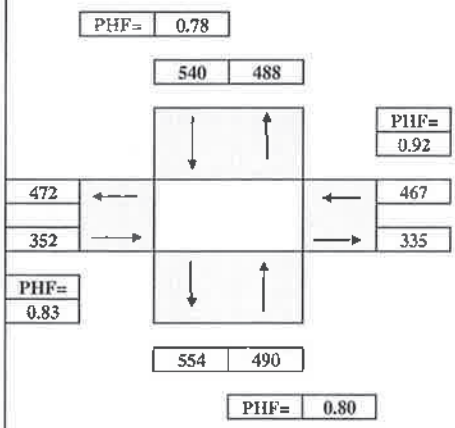
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	FIEST STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	BELMONT STREET	CITY:	FRESNO	FILE:	2911072-78AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	15	35	4	13	60	7	7	31	7	16	39	11	*245*
7:15 AM	---	7:30 AM	27	84	16	27	114	18	16	60	18	30	71	28	*509*
7:30 AM	---	7:45 AM	61	181	29	37	202	31	31	110	31	53	145	58	*969*
7:45 AM	---	8:00 AM	97	291	37	66	327	51	50	162	57	75	226	81	*1,520*
8:00 AM	---	8:15 AM	120	359	48	95	445	75	65	234	76	104	299	101	*2,021*
8:15 AM	---	8:30 AM	142	420	55	106	502	91	77	277	92	122	355	119	*2,358*
8:30 AM	---	8:45 AM	157	483	70	140	585	106	92	333	108	144	421	136	*2,775*
8:45 AM	---	9:00 AM	174	543	79	172	664	114	109	391	127	167	483	163	*3,186*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	15	35	4	13	60	7	7	31	7	16	39	11	*245*
7:15 AM	---	7:30 AM	12	49	12	14	54	11	9	29	11	14	32	17	*264*
7:30 AM	---	7:45 AM	34	97	13	10	38	13	15	50	13	23	74	30	*460*
7:45 AM	---	8:00 AM	36	110	8	29	125	20	19	52	26	22	81	23	*551*
8:00 AM	---	8:15 AM	23	68	11	29	118	24	15	72	19	29	73	20	*501*
8:15 AM	---	8:30 AM	22	61	7	11	57	16	12	43	16	18	56	18	*337*
8:30 AM	---	8:45 AM	15	63	15	34	83	15	15	56	16	22	66	17	*417*
8:45 AM	---	9:00 AM	17	60	9	32	79	8	17	58	19	23	62	27	*411*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	97	291	37	66	327	51	50	162	57	75	226	81	*1,520*
7:15 AM	---	8:15 AM	105	324	44	82	385	68	58	203	69	88	260	90	*1,776*
7:30 AM	---	8:30 AM	115	336	39	79	388	73	61	217	74	92	284	91	*1,849*
7:45 AM	---	8:45 AM	96	302	41	103	383	75	61	223	77	91	276	78	*1,806*
8:00 AM	---	9:00 AM	77	252	42	106	337	63	59	229	70	92	257	82	*1,666*

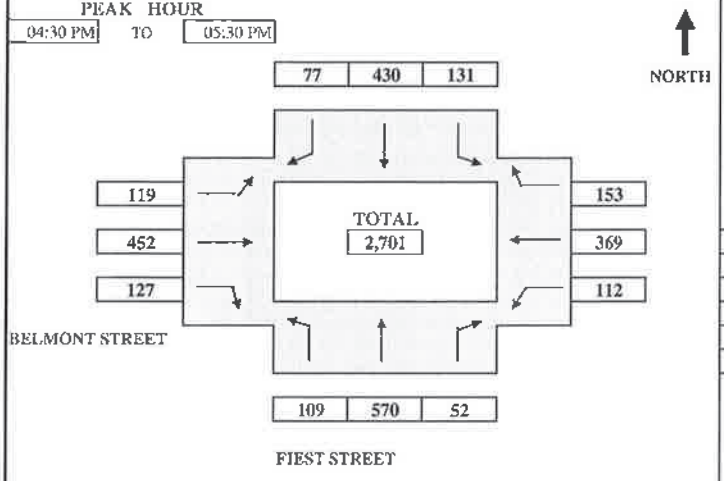
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

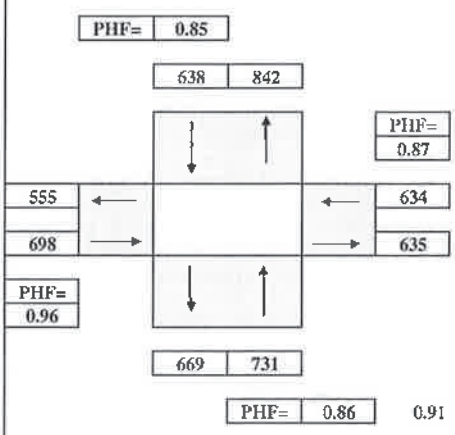
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	FIEST STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	BELMONT STREET	CITY:	FRESNO	FILE:	2911072-78PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	30	136	14	33	115	25	30	105	37	36	60	28	*649*
4:15 PM	---	4:30 PM	62	292	27	71	220	46	58	188	57	72	132	56	*1,281*
4:30 PM	---	4:45 PM	93	417	40	103	327	59	83	309	85	100	213	86	*1,915*
4:45 PM	---	5:00 PM	123	546	52	140	450	87	110	418	130	131	324	127	*2,638*
5:00 PM	---	5:15 PM	151	694	66	181	565	107	144	528	156	157	402	163	*3,314*
5:15 PM	---	5:30 PM	171	862	79	202	650	123	177	640	184	184	501	209	*3,982*
5:30 PM	---	5:45 PM	198	1,028	99	232	739	138	205	718	212	212	577	243	*4,601*
5:45 PM	---	6:00 PM	222	1,127	107	265	828	158	231	802	247	243	643	280	*5,153*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	30	136	14	33	115	25	30	105	37	36	60	28	*649*
4:15 PM	---	4:30 PM	32	156	13	38	105	21	28	83	20	36	72	28	*632*
4:30 PM	---	4:45 PM	31	125	13	32	107	13	25	121	28	28	81	30	*634*
4:45 PM	---	5:00 PM	30	129	12	37	123	28	27	109	45	31	111	41	*723*
5:00 PM	---	5:15 PM	28	148	14	41	115	20	34	110	26	26	78	36	*676*
5:15 PM	---	5:30 PM	20	168	13	21	85	16	33	112	28	27	99	46	*668*
5:30 PM	---	5:45 PM	27	166	20	30	89	15	28	78	28	28	76	34	*619*
5:45 PM	---	6:00 PM	24	99	8	33	89	20	26	84	35	31	66	37	*552*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	123	546	52	140	450	87	110	418	130	131	324	127	*2,638*
4:15 PM	---	5:15 PM	121	558	52	148	450	82	114	423	119	121	342	135	*2,665*
4:30 PM	---	5:30 PM	109	570	52	131	430	77	119	452	127	112	369	153	*2,701*
4:45 PM	---	5:45 PM	105	611	59	129	412	79	122	409	127	112	364	157	*2,686*
5:00 PM	---	6:00 PM	99	581	55	125	378	71	121	384	117	112	319	153	*2,515*

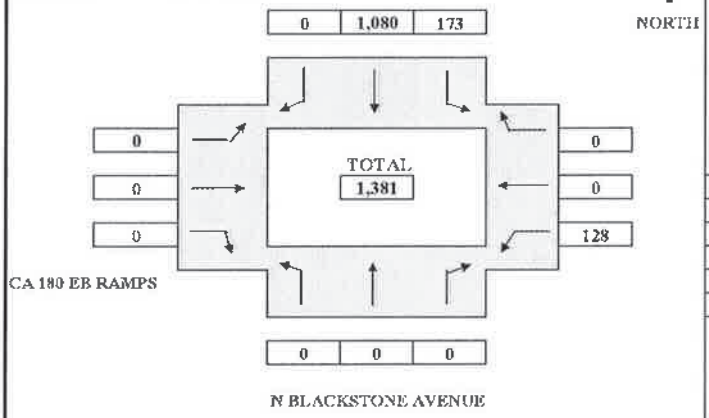
Telephone: (510)232-1271 Fax: (510)232-1272

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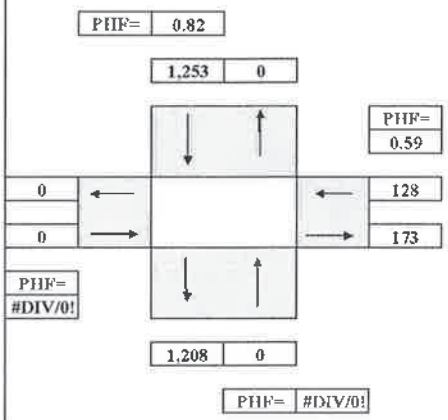
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N BLACKSTONE AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	CA 180 EB RAMPS	CITY:	FRESNO	FILE:	2911072-22AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	0	0	22	153	0	0	0	0	15	0	0	*190*
7:15 AM	---	7:30 AM	0	0	0	60	367	0	0	0	0	41	0	0	*468*
7:30 AM	---	7:45 AM	0	0	0	101	597	0	0	0	0	62	0	0	*760*
7:45 AM	---	8:00 AM	0	0	0	159	923	0	0	0	0	116	0	0	*1,198*
8:00 AM	---	8:15 AM	0	0	0	195	1,233	0	0	0	0	143	0	0	*1,571*
8:15 AM	---	8:30 AM	0	0	0	239	1,428	0	0	0	0	173	0	0	*1,840*
8:30 AM	---	8:45 AM	0	0	0	273	1,598	0	0	0	0	196	0	0	*2,067*
8:45 AM	---	9:00 AM	0	0	0	317	1,777	0	0	0	0	225	0	0	*2,319*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	22	153	0	0	0	0	15	0	0	*190*
7:15 AM	---	7:30 AM	0	0	0	38	214	0	0	0	0	26	0	0	*278*
7:30 AM	---	7:45 AM	0	0	0	41	230	0	0	0	0	21	0	0	*292*
7:45 AM	---	8:00 AM	0	0	0	58	326	0	0	0	0	54	0	0	*438*
8:00 AM	---	8:15 AM	0	0	0	36	310	0	0	0	0	27	0	0	*373*
8:15 AM	---	8:30 AM	0	0	0	44	195	0	0	0	0	30	0	0	*269*
8:30 AM	---	8:45 AM	0	0	0	34	170	0	0	0	0	23	0	0	*227*
8:45 AM	---	9:00 AM	0	0	0	44	179	0	0	0	0	29	0	0	*252*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	159	923	0	0	0	0	116	0	0	*1,198*
7:15 AM	---	8:15 AM	0	0	0	173	1,080	0	0	0	0	128	0	0	*1,381*
7:30 AM	---	8:30 AM	0	0	0	179	1,061	0	0	0	0	132	0	0	*1,372*
7:45 AM	---	8:45 AM	0	0	0	172	1,001	0	0	0	0	134	0	0	*1,307*
8:00 AM	---	9:00 AM	0	0	0	158	854	0	0	0	0	109	0	0	*1,121*

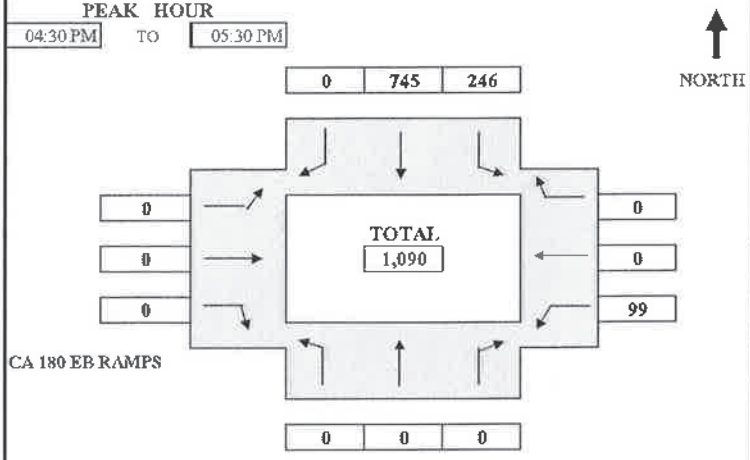
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

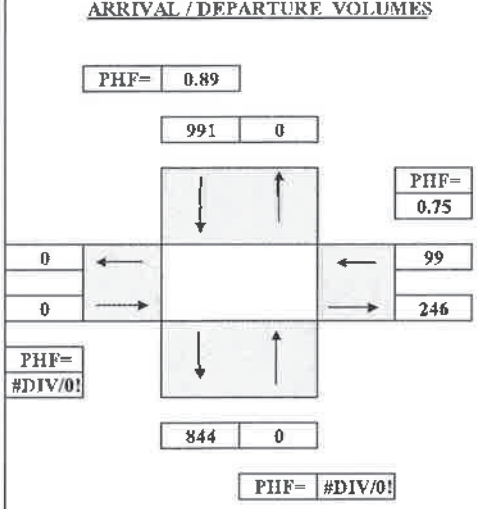
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N BLACKSTONE AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	CA 180 EB RAMPS	CITY:	FRESNO	FILE:	2911872-22PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	55	175	0	0	0	0	13	0	0	*243*
4:15 PM	---	4:30 PM	0	0	0	110	327	0	0	0	0	29	0	0	*466*
4:30 PM	---	4:45 PM	0	0	0	172	528	0	0	0	0	57	0	0	*757*
4:45 PM	---	5:00 PM	0	0	0	231	705	0	0	0	0	75	0	0	*1,011*
5:00 PM	---	5:15 PM	0	0	0	292	921	0	0	0	0	95	0	0	*1,308*
5:15 PM	---	5:30 PM	0	0	0	356	1,072	0	0	0	0	128	0	0	*1,556*
5:30 PM	---	5:45 PM	0	0	0	432	1,224	0	0	0	0	145	0	0	*1,801*
5:45 PM	---	6:00 PM	0	0	0	471	1,363	0	0	0	0	162	0	0	*1,996*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	55	175	0	0	0	0	13	0	0	*243*
4:15 PM	---	4:30 PM	0	0	0	55	152	0	0	0	0	16	0	0	*223*
4:30 PM	---	4:45 PM	0	0	0	62	201	0	0	0	0	28	0	0	*291*
4:45 PM	---	5:00 PM	0	0	0	59	177	0	0	0	0	18	0	0	*254*
5:00 PM	---	5:15 PM	0	0	0	61	216	0	0	0	0	20	0	0	*297*
5:15 PM	---	5:30 PM	0	0	0	64	151	0	0	0	0	33	0	0	*248*
5:30 PM	---	5:45 PM	0	0	0	76	152	0	0	0	0	17	0	0	*245*
5:45 PM	---	6:00 PM	0	0	0	39	139	0	0	0	0	17	0	0	*195*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	231	705	0	0	0	0	75	0	0	*1,011*
4:15 PM	---	5:15 PM	0	0	0	237	746	0	0	0	0	82	0	0	*1,065*
4:30 PM	---	5:30 PM	0	0	0	246	745	0	0	0	0	99	0	0	*1,090*
4:45 PM	---	5:45 PM	0	0	0	260	696	0	0	0	0	88	0	0	*1,044*
5:00 PM	---	6:00 PM	0	0	0	240	658	0	0	0	0	87	0	0	*985*

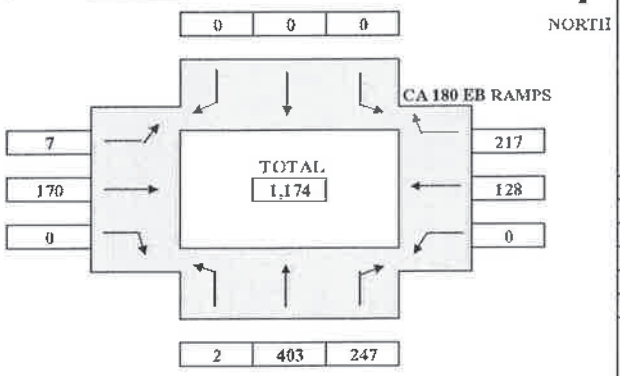
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

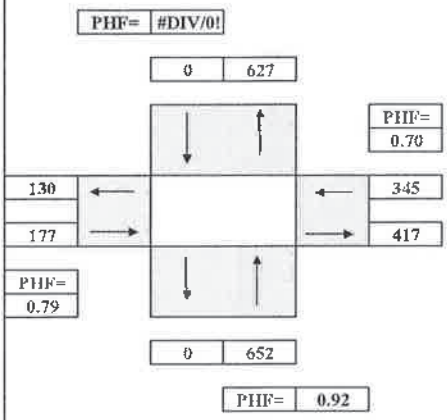
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N ABBY STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	CA 180 EB RAMPS	CITY:	FRESNO	FILE:	2911072-29AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	64	33	0	0	0	1	24	0	0	19	35	*176*
7:15 AM	---	7:30 AM	0	133	79	0	0	0	2	62	0	0	46	78	*400*
7:30 AM	---	7:45 AM	0	249	131	0	0	0	4	101	0	0	66	160	*711*
7:45 AM	---	8:00 AM	0	363	195	0	0	0	7	154	0	0	120	229	*1,068*
8:00 AM	---	8:15 AM	1	457	263	0	0	0	8	190	0	0	146	265	*1,330*
8:15 AM	---	8:30 AM	2	536	326	0	0	0	9	232	0	0	174	295	*1,574*
8:30 AM	---	8:45 AM	2	634	394	0	0	0	10	265	0	0	192	331	*1,828*
8:45 AM	---	9:00 AM	2	736	460	0	0	0	14	305	0	0	227	367	*2,111*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	64	33	0	0	0	1	24	0	0	19	35	*176*
7:15 AM	---	7:30 AM	0	69	46	0	0	0	1	38	0	0	27	43	*224*
7:30 AM	---	7:45 AM	0	116	52	0	0	0	2	39	0	0	20	82	*311*
7:45 AM	---	8:00 AM	0	114	64	0	0	0	3	53	0	0	54	69	*357*
8:00 AM	---	8:15 AM	1	94	68	0	0	0	1	36	0	0	26	36	*262*
8:15 AM	---	8:30 AM	1	79	63	0	0	0	1	42	0	0	28	30	*244*
8:30 AM	---	8:45 AM	0	98	68	0	0	0	1	33	0	0	18	36	*254*
8:45 AM	---	9:00 AM	0	102	66	0	0	0	4	40	0	0	35	36	*283*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	363	195	0	0	0	7	154	0	0	120	229	*1,068*
7:15 AM	---	8:15 AM	1	393	230	0	0	0	7	166	0	0	127	230	*1,154*
7:30 AM	---	8:30 AM	2	403	247	0	0	0	7	170	0	0	128	217	*1,174*
7:45 AM	---	8:45 AM	2	385	263	0	0	0	6	164	0	0	126	171	*1,117*
8:00 AM	---	9:00 AM	2	373	265	0	0	0	7	151	0	0	107	138	*1,043*

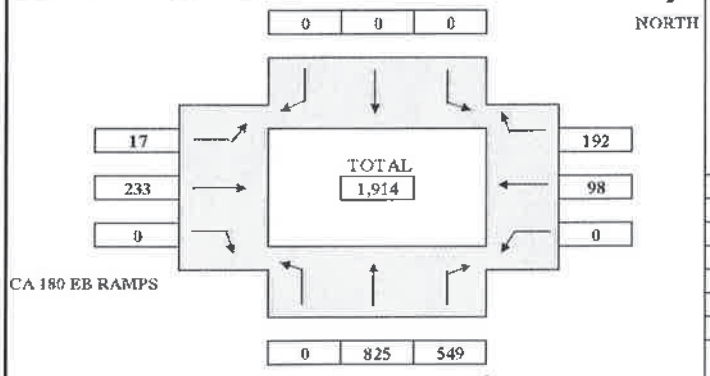
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B.A.Y.M.E.T.R.I.C.S.

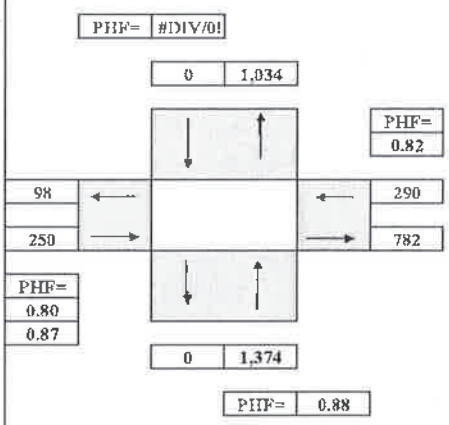
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N ABBY STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	CA 180 EB RAMPS	CITY:	FRESNO	FILE:	2911072-29PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	183	139	0	0	0	3	52	0	0	15	36	*428*
4:15 PM	---	4:30 PM	0	339	241	0	0	0	7	104	0	0	31	72	*794*
4:30 PM	---	4:45 PM	0	514	373	0	0	0	10	163	0	0	58	120	*1,238*
4:45 PM	---	5:00 PM	0	705	513	0	0	0	14	221	0	0	76	169	*1,698*
5:00 PM	---	5:15 PM	0	957	652	0	0	0	20	287	0	0	96	209	*2,221*
5:15 PM	---	5:30 PM	0	1,164	790	0	0	0	24	337	0	0	129	264	*2,708*
5:30 PM	---	5:45 PM	1	1,333	901	0	0	0	31	408	0	0	146	312	*3,132*
5:45 PM	---	6:00 PM	3	1,462	1,010	0	0	0	37	453	0	0	163	346	*3,474*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	183	139	0	0	0	3	52	0	0	15	36	*428*
4:15 PM	---	4:30 PM	0	156	102	0	0	0	4	52	0	0	16	36	*366*
4:30 PM	---	4:45 PM	0	175	132	0	0	0	3	59	0	0	27	48	*444*
4:45 PM	---	5:00 PM	0	191	140	0	0	0	4	58	0	0	18	49	*460*
5:00 PM	---	5:15 PM	0	252	139	0	0	0	6	66	0	0	20	40	*523*
5:15 PM	---	5:30 PM	0	207	138	0	0	0	4	50	0	0	33	55	*487*
5:30 PM	---	5:45 PM	1	169	111	0	0	0	7	71	0	0	17	48	*424*
5:45 PM	---	6:00 PM	2	129	109	0	0	0	6	45	0	0	17	34	*342*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	705	513	0	0	0	14	221	0	0	76	169	*1,698*
4:15 PM	---	5:15 PM	0	774	513	0	0	0	17	235	0	0	81	173	*1,793*
4:30 PM	---	5:30 PM	0	825	549	0	0	0	17	233	0	0	98	192	*1,914*
4:45 PM	---	5:45 PM	1	819	528	0	0	0	21	245	0	0	88	192	*1,894*
5:00 PM	---	6:00 PM	3	757	497	0	0	0	23	232	0	0	87	177	*1,776*

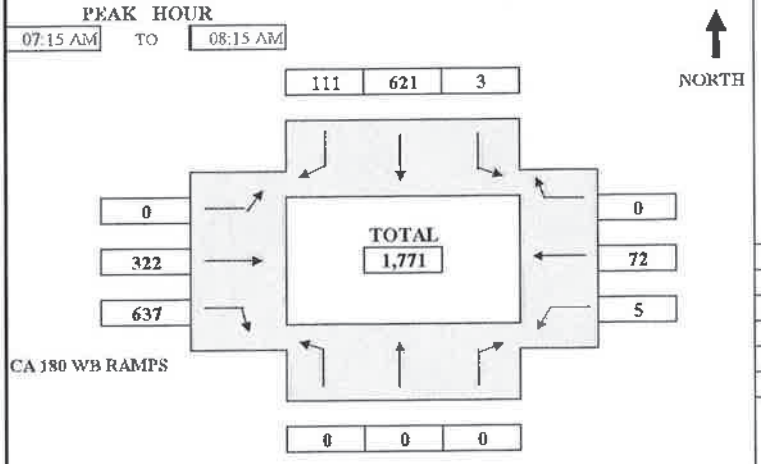
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

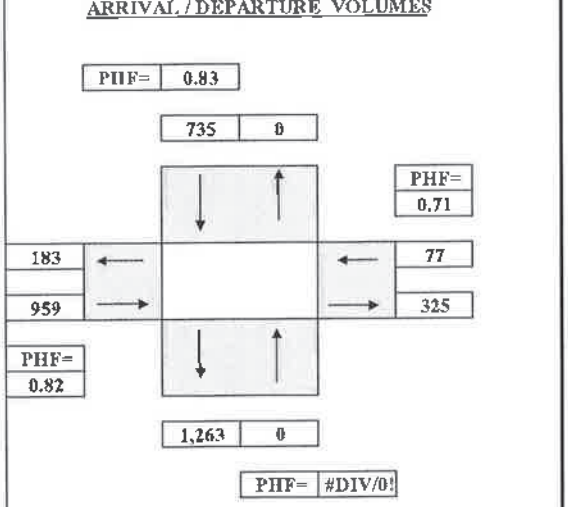
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N BLACKSTONE AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	CA 180 WB RAMPS	CITY:	FRESNO	FILE:	2911072-23AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA														
7:00 AM	7:15 AM	0	0	0	0	87	19	0	23	88	0	17	0	*234*
7:15 AM	7:30 AM	0	0	0	0	207	43	0	98	223	1	36	0	*608*
7:30 AM	7:45 AM	0	0	0	0	334	69	0	182	366	2	51	0	*1,004*
7:45 AM	8:00 AM	0	0	0	2	526	96	0	280	559	3	73	0	*1,539*
8:00 AM	8:15 AM	0	0	0	3	708	130	0	345	725	5	89	0	*2,005*
8:15 AM	8:30 AM	0	0	0	6	830	144	0	379	843	6	107	0	*2,315*
8:30 AM	8:45 AM	0	0	0	7	954	167	0	443	919	10	130	0	*2,630*
8:45 AM	9:00 AM	0	0	0	7	1,091	191	0	501	1,007	11	144	0	*2,952*
TOTAL BY PERIOD														
7:00 AM	7:15 AM	0	0	0	0	87	19	0	23	88	0	17	0	*234*
7:15 AM	7:30 AM	0	0	0	0	120	24	0	75	135	1	19	0	*374*
7:30 AM	7:45 AM	0	0	0	0	127	26	0	84	143	1	15	0	*396*
7:45 AM	8:00 AM	0	0	0	2	192	27	0	98	193	1	22	0	*535*
8:00 AM	8:15 AM	0	0	0	1	182	34	0	65	166	2	16	0	*466*
8:15 AM	8:30 AM	0	0	0	3	122	14	0	34	118	1	18	0	*310*
8:30 AM	8:45 AM	0	0	0	1	124	23	0	64	76	4	23	0	*315*
8:45 AM	9:00 AM	0	0	0	0	137	24	0	58	88	1	14	0	*322*
HOURLY TOTALS														
7:00 AM	8:00 AM	0	0	0	2	526	96	0	280	559	3	73	0	*1,539*
7:15 AM	8:15 AM	0	0	0	3	621	111	0	322	637	5	72	0	*1,771*
7:30 AM	8:30 AM	0	0	0	6	623	101	0	281	620	5	71	0	*1,707*
7:45 AM	8:45 AM	0	0	0	7	620	98	0	261	553	8	79	0	*1,626*
8:00 AM	9:00 AM	0	0	0	5	565	95	0	221	448	8	71	0	*1,413*

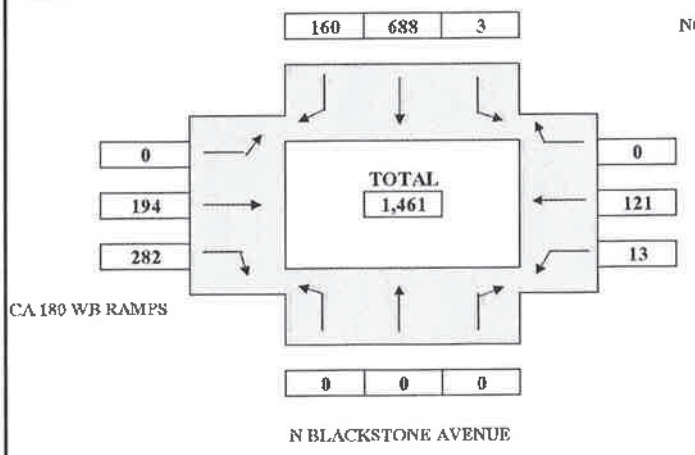
Telephone: (510)232-1271 Fax: (510)232-1272

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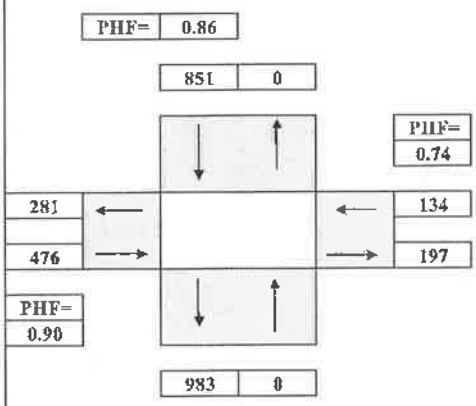
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/4/2009	DAY:	WEDNESDAY
N-S APPROACH:	N BLACKSTONE AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	CA 180 WB RAMPS	CITY:	FRESNO	FILE:	2911072-23PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	0	0	2	158	38	0	39	70	1	43	0	*351*
4:15 PM	---	4:30 PM	0	0	0	3	309	81	0	85	124	3	72	0	*677*
4:30 PM	---	4:45 PM	0	0	0	4	495	117	0	127	196	6	108	0	*1,053*
4:45 PM	---	5:00 PM	0	0	0	6	660	158	0	169	263	8	130	0	*1,394*
5:00 PM	---	5:15 PM	0	0	0	6	855	210	0	215	338	15	168	0	*1,807*
5:15 PM	---	5:30 PM	0	0	0	6	997	241	0	279	406	16	193	0	*2,138*
5:30 PM	---	5:45 PM	0	0	0	6	1,170	286	0	334	458	17	227	0	*2,498*
5:45 PM	---	6:00 PM	0	0	0	6	1,304	330	0	395	502	18	259	0	*2,814*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	2	158	38	0	39	70	1	43	0	*351*
4:15 PM	---	4:30 PM	0	0	0	1	151	43	0	46	54	2	29	0	*326*
4:30 PM	---	4:45 PM	0	0	0	1	186	36	0	42	72	3	36	0	*376*
4:45 PM	---	5:00 PM	0	0	0	2	165	41	0	42	67	2	22	0	*341*
5:00 PM	---	5:15 PM	0	0	0	0	195	52	0	46	75	7	38	0	*413*
5:15 PM	---	5:30 PM	0	0	0	0	142	31	0	64	68	1	25	0	*331*
5:30 PM	---	5:45 PM	0	0	0	0	173	45	0	55	52	1	34	0	*360*
5:45 PM	---	6:00 PM	0	0	0	0	134	44	0	61	44	1	32	0	*316*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	6	660	158	0	169	263	8	130	0	*1,394*
4:15 PM	---	5:15 PM	0	0	0	4	697	172	0	176	268	14	125	0	*1,456*
4:30 PM	---	5:30 PM	0	0	0	3	688	160	0	194	282	13	121	0	*1,461*
4:45 PM	---	5:45 PM	0	0	0	2	675	169	0	207	262	11	119	0	*1,445*
5:00 PM	---	6:00 PM	0	0	0	0	644	172	0	226	239	10	129	0	*1,420*

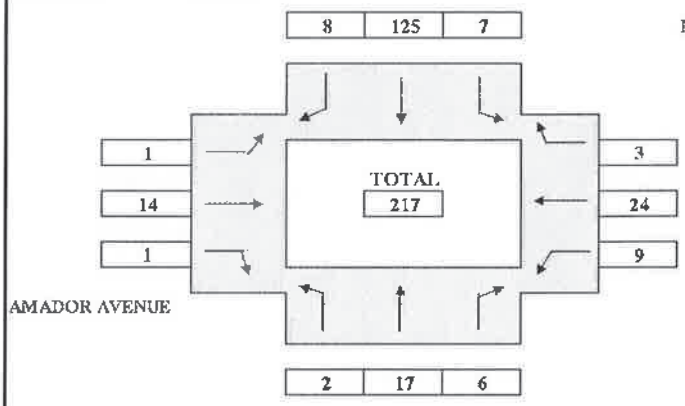
Telephone: (510)232-1271 Fax: (510)232-1272

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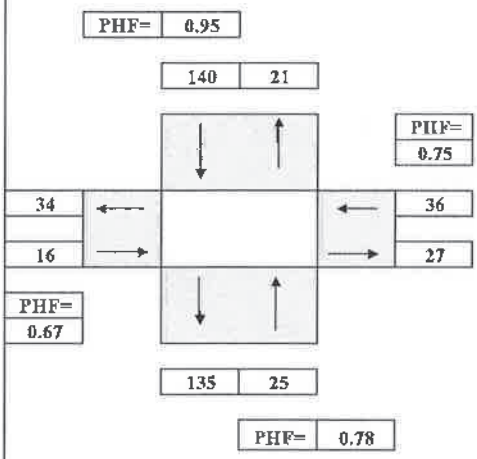
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	AMADOR AVENUE	CITY:	FRESNO	FILE:	2911072-59aAM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	5	0	0	16	0	0	4	0	3	2	0	*30*
7:15 AM	---	7:30 AM	0	11	1	1	42	0	0	7	1	5	6	0	*74*
7:30 AM	---	7:45 AM	0	17	2	2	71	4	0	12	2	9	10	0	*129*
7:45 AM	---	8:00 AM	2	19	4	4	100	7	0	16	2	12	18	1	*185*
8:00 AM	---	8:15 AM	2	21	6	6	132	8	0	16	2	13	25	1	*232*
8:15 AM	---	8:30 AM	2	28	7	8	167	8	1	21	2	14	30	3	*291*
8:30 AM	---	8:45 AM	2	34	8	9	190	8	1	26	2	15	34	3	*332*
8:45 AM	---	9:00 AM	2	39	9	9	209	9	1	30	3	15	39	3	*368*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	5	0	0	16	0	0	4	0	3	2	0	*30*
7:15 AM	---	7:30 AM	0	6	1	1	26	0	0	3	1	2	4	0	*44*
7:30 AM	---	7:45 AM	0	6	1	1	29	4	0	5	1	4	4	0	*55*
7:45 AM	---	8:00 AM	2	2	2	2	29	3	0	4	0	3	8	1	*56*
8:00 AM	---	8:15 AM	0	2	2	2	32	1	0	0	0	1	7	0	*47*
8:15 AM	---	8:30 AM	0	7	1	2	35	0	1	5	0	1	5	2	*59*
8:30 AM	---	8:45 AM	0	6	1	1	23	0	0	5	0	1	4	0	*41*
8:45 AM	---	9:00 AM	0	5	1	0	19	1	0	4	1	0	5	0	*36*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	2	19	4	4	100	7	0	16	2	12	18	1	*185*
7:15 AM	---	8:15 AM	2	16	6	6	116	8	0	12	2	10	23	1	*202*
7:30 AM	---	8:30 AM	2	17	6	7	125	8	1	14	1	9	24	3	*217*
7:45 AM	---	8:45 AM	2	17	6	7	119	4	1	14	0	6	24	3	*203*
8:00 AM	---	9:00 AM	0	20	5	5	109	2	1	14	1	3	21	2	*183*

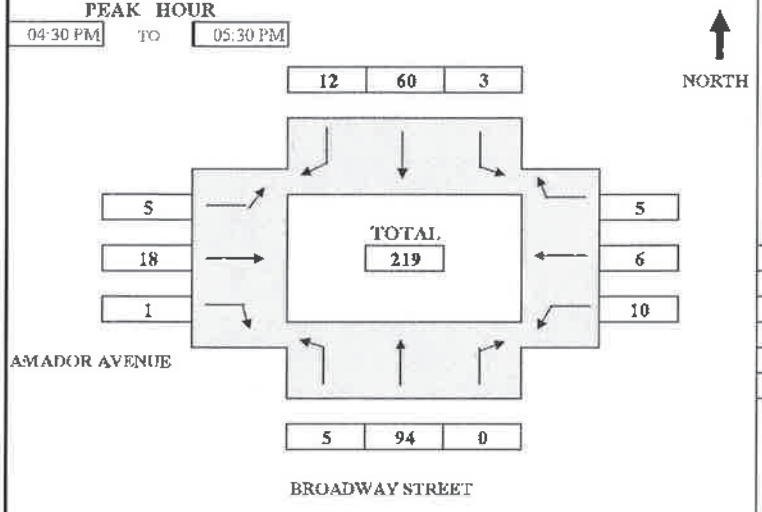
Telephone: (510)232-1271 Fax: (510)232-1272

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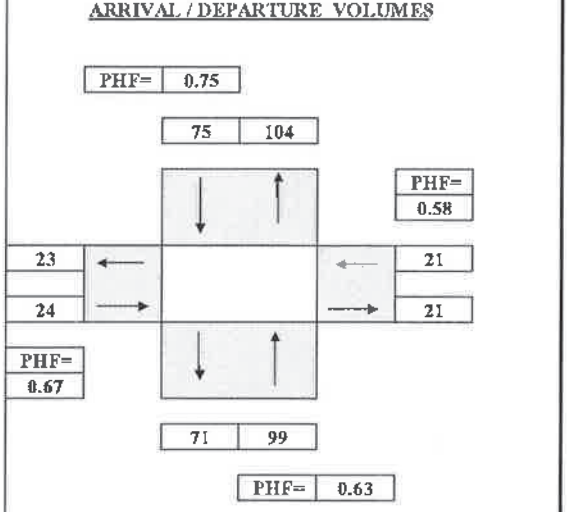
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	AMADOR AVENUE	CITY:	FRESNO	FILE:	2911072-59aPM

PEAK HOUR 04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	1	14	0	0	15	3	0	4	1	2	4	1	*45*
4:15 PM	---	4:30 PM	2	28	1	0	31	7	1	4	1	2	6	4	*87*
4:30 PM	---	4:45 PM	2	50	1	0	53	10	2	9	1	7	9	5	*149*
4:45 PM	---	5:00 PM	4	69	1	2	71	12	3	12	1	10	9	5	*199*
5:00 PM	---	5:15 PM	6	106	1	2	81	17	3	16	2	12	10	7	*263*
5:15 PM	---	5:30 PM	7	122	1	3	91	19	6	22	2	12	12	9	*306*
5:30 PM	---	5:45 PM	7	134	1	3	100	20	6	25	2	12	14	10	*334*
5:45 PM	---	6:00 PM	7	144	1	4	107	20	6	27	2	13	15	10	*356*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	1	14	0	0	15	3	0	4	1	2	4	1	*45*
4:15 PM	---	4:30 PM	1	14	1	0	16	4	1	0	0	0	2	3	*42*
4:30 PM	---	4:45 PM	0	22	0	0	22	3	1	5	0	5	3	1	*62*
4:45 PM	---	5:00 PM	2	19	0	2	18	2	1	3	0	3	0	0	*50*
5:00 PM	---	5:15 PM	2	37	0	0	10	5	0	4	1	2	1	2	*64*
5:15 PM	---	5:30 PM	1	16	0	1	10	2	3	6	0	0	2	2	*43*
5:30 PM	---	5:45 PM	0	12	0	0	9	1	0	3	0	0	2	1	*28*
5:45 PM	---	6:00 PM	0	10	0	1	7	0	0	2	0	1	1	0	*22*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	4	69	1	2	71	12	3	12	1	10	9	5	*199*
4:15 PM	---	5:15 PM	5	92	1	2	66	14	3	12	1	10	6	6	*218*
4:30 PM	---	5:30 PM	5	94	0	3	60	12	5	18	1	10	6	5	*219*
4:45 PM	---	5:45 PM	5	84	0	3	47	10	4	16	1	5	5	5	*185*
5:00 PM	---	6:00 PM	3	75	0	2	36	8	3	15	1	3	6	5	*157*

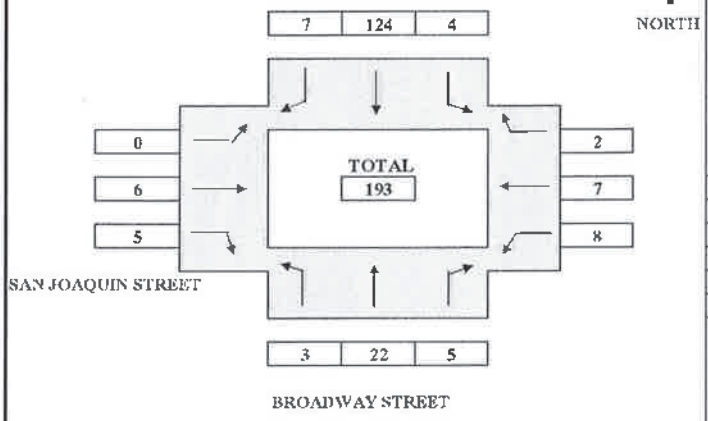
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

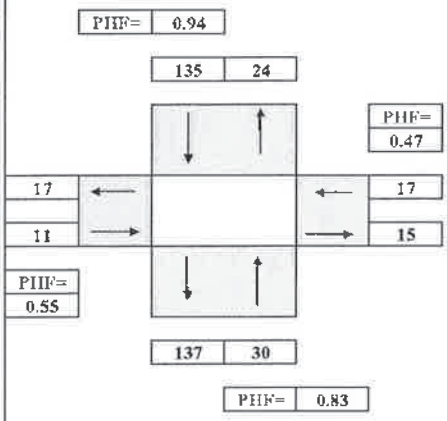
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	SAN JOAQUIN STREET	CITY:	FRESNO	FILE:	2911072-60mAM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
SURVEY DATA															
7:00 AM	---	7:15 AM	0	3	1	0	18	1	1	0	0	0	2	1	*27*
7:15 AM	---	7:30 AM	0	8	3	1	45	2	2	1	0	1	5	2	*70*
7:30 AM	---	7:45 AM	0	14	4	4	76	2	2	3	2	5	9	3	*124*
7:45 AM	---	8:00 AM	2	18	7	4	105	5	2	5	5	7	12	4	*176*
8:00 AM	---	8:15 AM	3	22	8	4	136	7	2	7	5	8	12	4	*218*
8:15 AM	---	8:30 AM	3	30	8	5	169	9	2	7	5	9	12	4	*263*
8:30 AM	---	8:45 AM	4	37	10	6	191	10	2	11	5	11	15	4	*306*
8:45 AM	---	9:00 AM	4	43	10	6	211	10	2	12	6	12	17	4	*337*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	3	1	0	18	1	1	0	0	0	2	1	*27*
7:15 AM	---	7:30 AM	0	5	2	1	27	1	1	1	0	1	3	1	*43*
7:30 AM	---	7:45 AM	0	6	1	3	31	0	0	2	2	4	4	1	*54*
7:45 AM	---	8:00 AM	2	4	3	0	29	3	0	2	3	2	3	1	*52*
8:00 AM	---	8:15 AM	1	4	1	0	31	2	0	2	0	1	0	0	*42*
8:15 AM	---	8:30 AM	0	8	0	1	33	2	0	0	0	1	0	0	*45*
8:30 AM	---	8:45 AM	1	7	2	1	22	1	0	4	0	2	3	0	*43*
8:45 AM	---	9:00 AM	0	6	0	0	20	0	0	1	1	1	2	0	*31*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	2	18	7	4	105	5	2	5	5	7	12	4	*176*
7:15 AM	---	8:15 AM	3	19	7	4	118	6	1	7	5	8	10	3	*191*
7:30 AM	---	8:30 AM	3	22	5	4	124	7	0	6	5	8	7	2	*193*
7:45 AM	---	8:45 AM	4	23	6	2	115	8	0	8	3	6	6	1	*182*
8:00 AM	---	9:00 AM	2	25	3	2	106	5	0	7	1	5	5	0	*161*

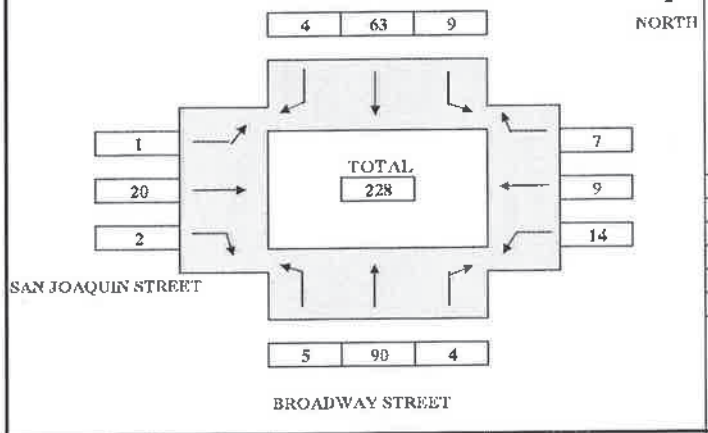
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B.A.Y.M.E.T.R.I.C.S.

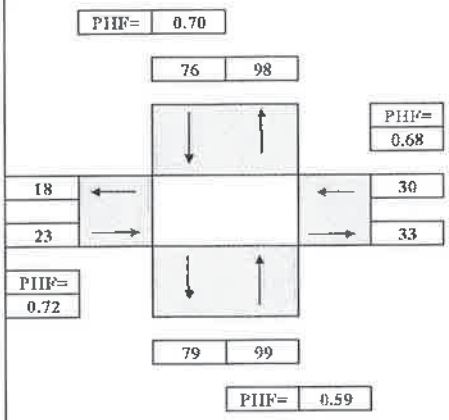
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	HST PROJECT	SURVEY DATE:	11/12/2009	DAY:	THURSDAY
N-S APPROACH:	BROADWAY STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	SAN JOAQUIN STREET	CITY:	FRESNO	FILE:	2911072-60aPM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
SURVEY DATA															
4:00 PM	---	4:15 PM	1	11	1	0	18	0	0	3	1	2	2	4	*43*
4:15 PM	---	4:30 PM	4	24	2	3	30	1	1	8	2	4	3	6	*88*
4:30 PM	---	4:45 PM	5	43	2	8	51	2	1	15	3	5	8	9	*152*
4:45 PM	---	5:00 PM	5	62	3	8	71	3	1	16	3	12	10	11	*205*
5:00 PM	---	5:15 PM	6	101	5	9	81	4	1	23	3	16	11	11	*271*
5:15 PM	---	5:30 PM	6	115	5	10	90	4	1	24	4	18	12	14	*303*
5:30 PM	---	5:45 PM	6	122	5	10	99	4	1	25	4	22	12	19	*329*
5:45 PM	---	6:00 PM	7	129	5	10	107	4	1	25	4	25	13	21	*351*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	1	11	1	0	18	0	0	3	1	2	2	4	*43*
4:15 PM	---	4:30 PM	3	13	1	3	12	1	1	5	1	2	1	2	*45*
4:30 PM	---	4:45 PM	1	19	0	5	21	1	0	7	1	1	5	3	*64*
4:45 PM	---	5:00 PM	0	19	1	0	20	1	0	1	0	7	2	2	*53*
5:00 PM	---	5:15 PM	1	39	2	1	10	1	0	7	0	4	1	0	*66*
5:15 PM	---	5:30 PM	0	14	0	1	9	0	0	1	1	2	1	3	*32*
5:30 PM	---	5:45 PM	0	7	0	0	9	0	0	1	0	4	0	5	*26*
5:45 PM	---	6:00 PM	1	7	0	0	8	0	0	0	0	3	1	2	*22*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	5	62	3	8	71	3	1	16	3	12	10	11	*205*
4:15 PM	---	5:15 PM	5	90	4	9	63	4	1	20	2	14	9	7	*228*
4:30 PM	---	5:30 PM	2	91	3	7	60	3	0	16	2	14	9	8	*215*
4:45 PM	---	5:45 PM	1	79	3	2	48	2	0	10	1	17	4	10	*177*
5:00 PM	---	6:00 PM	2	67	2	2	36	1	0	9	1	13	3	10	*146*

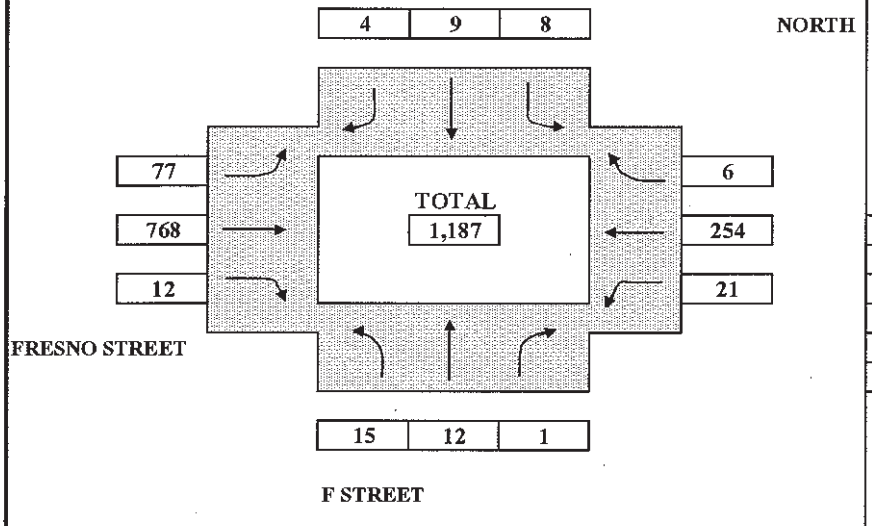
Telephone: (510)232-1271 Fax: (510)232-1272

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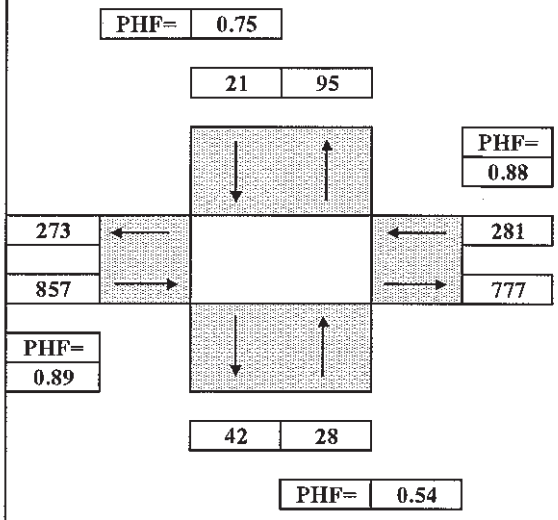
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/15/2011	DAY:	TUESDAY
N-S APPROACH:	F STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	FRESNO STREET	JURISDICTION:	FRESNO	FILE:	3103016-33AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	1	1	0	1	0	2	17	89	1	2	45	3	*162*
7:15 AM	---	7:30 AM	2	4	2	1	1	3	31	211	4	5	83	3	*350*
7:30 AM	---	7:45 AM	5	4	2	2	2	5	49	367	8	7	142	4	*597*
7:45 AM	---	8:00 AM	8	11	2	6	3	5	75	579	11	16	205	4	*925*
8:00 AM	---	8:15 AM	10	11	2	8	6	7	92	762	13	20	268	4	*1,203*
8:15 AM	---	8:30 AM	17	16	3	9	10	7	108	979	16	26	337	9	*1,537*
8:30 AM	---	8:45 AM	17	19	6	9	13	9	116	1,111	18	32	407	12	*1,769*
8:45 AM	---	9:00 AM	22	23	8	10	15	12	124	1,247	21	34	491	14	*2,021*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	1	1	0	1	0	2	17	89	1	2	45	3	*162*
7:15 AM	---	7:30 AM	1	3	2	0	1	1	14	122	3	3	38	0	*188*
7:30 AM	---	7:45 AM	3	0	0	1	1	2	18	156	4	2	59	1	*247*
7:45 AM	---	8:00 AM	3	7	0	4	1	0	26	212	3	9	63	0	*328*
8:00 AM	---	8:15 AM	2	0	0	2	3	2	17	183	2	4	63	0	*278*
8:15 AM	---	8:30 AM	7	5	1	1	4	0	16	217	3	6	69	5	*334*
8:30 AM	---	8:45 AM	0	3	3	0	3	2	8	132	2	6	70	3	*232*
8:45 AM	---	9:00 AM	5	4	2	1	2	3	8	136	3	2	84	2	*252*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	8	11	2	6	3	5	75	579	11	16	205	4	*925*
7:15 AM	---	8:15 AM	9	10	2	7	6	5	75	673	12	18	223	1	*1,041*
7:30 AM	---	8:30 AM	15	12	1	8	9	4	77	768	12	21	254	6	*1,187*
7:45 AM	---	8:45 AM	12	15	4	7	11	4	67	744	10	25	265	8	*1,172*
8:00 AM	---	9:00 AM	14	12	6	4	12	7	49	668	10	18	286	10	*1,096*

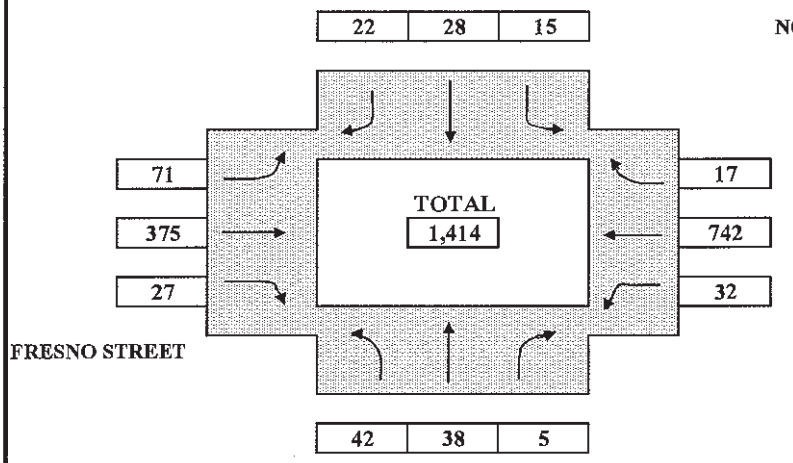
Telephone: (510)232-1271 Fax: (510)232-1272

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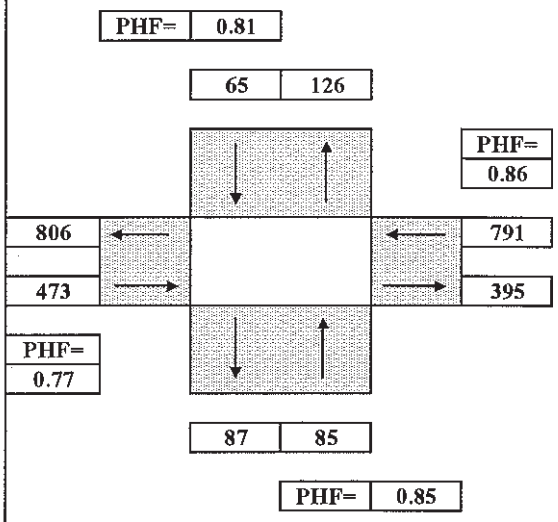
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/15/2011	DAY:	TUESDAY
N-S APPROACH:	F STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	FRESNO STREET	JURISDICTION:	FRESNO	FILE:	3103016-33PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	10	11	1	4	6	7	19	103	8	8	192	12	*381*
4:15 PM	---	4:30 PM	21	21	1	8	15	12	43	227	14	22	406	14	*804*
4:30 PM	---	4:45 PM	35	30	3	8	19	18	61	300	20	26	598	17	*1,135*
4:45 PM	---	5:00 PM	42	38	5	15	28	22	71	375	27	32	742	17	*1,414*
5:00 PM	---	5:15 PM	51	48	6	18	37	30	83	468	30	38	947	25	*1,781*
5:15 PM	---	5:30 PM	64	57	8	22	40	34	100	559	34	42	1,120	30	*2,110*
5:30 PM	---	5:45 PM	73	63	11	28	44	39	111	640	35	49	1,305	33	*2,431*
5:45 PM	---	6:00 PM	73	66	13	29	45	42	119	688	37	51	1,366	36	*2,565*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	10	11	1	4	6	7	19	103	8	8	192	12	*381*
4:15 PM	---	4:30 PM	11	10	0	4	9	5	24	124	6	14	214	2	*423*
4:30 PM	---	4:45 PM	14	9	2	0	4	6	18	73	6	4	192	3	*331*
4:45 PM	---	5:00 PM	7	8	2	7	9	4	10	75	7	6	144	0	*279*
5:00 PM	---	5:15 PM	9	10	1	3	9	8	12	93	3	6	205	8	*367*
5:15 PM	---	5:30 PM	13	9	2	4	3	4	17	91	4	4	173	5	*329*
5:30 PM	---	5:45 PM	9	6	3	6	4	5	11	81	1	7	185	3	*321*
5:45 PM	---	6:00 PM	0	3	2	1	1	3	8	48	2	2	61	3	*134*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	42	38	5	15	28	22	71	375	27	32	742	17	*1,414*
4:15 PM	---	5:15 PM	41	37	5	14	31	23	64	365	22	30	755	13	*1,400*
4:30 PM	---	5:30 PM	43	36	7	14	25	22	57	332	20	20	714	16	*1,306*
4:45 PM	---	5:45 PM	38	33	8	20	25	21	50	340	15	23	707	16	*1,296*
5:00 PM	---	6:00 PM	31	28	8	14	17	20	48	313	10	19	624	19	*1,151*

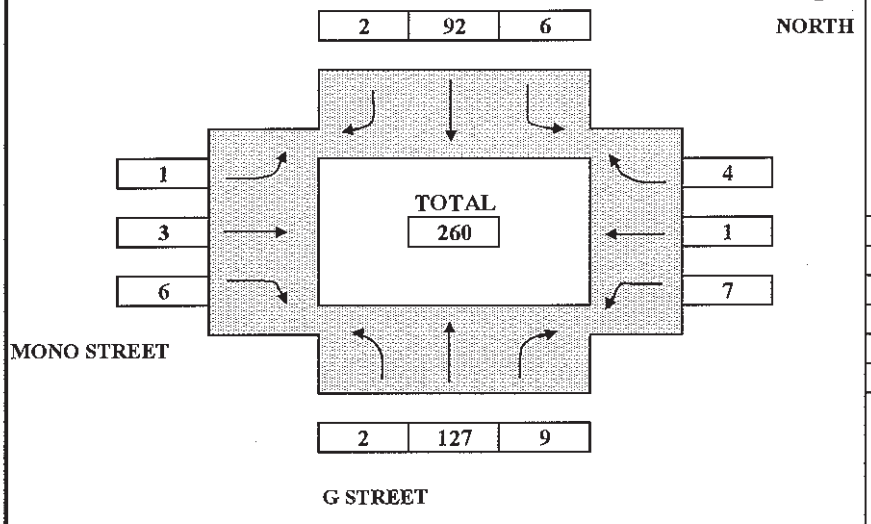
Telephone: (510)232-1271 Fax: (510)232-1272

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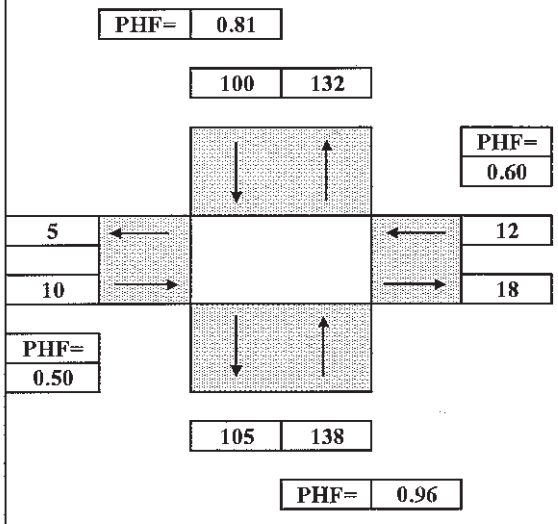
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	G STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	MONO STREET	JURISDICTION:	FRESNO	FILE:	3103016-1AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	2	12	2	0	9	0	0	0	4	0	1	1	*31*
7:15 AM	---	7:30 AM	2	30	3	1	30	0	1	0	5	0	1	1	*74*
7:30 AM	---	7:45 AM	4	52	4	2	55	0	1	1	5	1	1	1	*127*
7:45 AM	---	8:00 AM	5	84	6	4	83	1	1	2	9	3	1	2	*201*
8:00 AM	---	8:15 AM	5	118	8	4	102	2	1	2	10	3	2	4	*261*
8:15 AM	---	8:30 AM	6	148	10	7	123	2	1	3	10	4	2	4	*320*
8:30 AM	---	8:45 AM	6	179	13	8	147	2	2	4	11	8	2	5	*387*
8:45 AM	---	9:00 AM	7	201	13	9	169	2	2	4	14	9	3	7	*440*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	2	12	2	0	9	0	0	0	4	0	1	1	*31*
7:15 AM	---	7:30 AM	0	18	1	1	21	0	1	0	1	0	0	0	*43*
7:30 AM	---	7:45 AM	2	22	1	1	25	0	0	1	0	1	0	0	*53*
7:45 AM	---	8:00 AM	1	32	2	2	28	1	0	1	4	2	0	1	*74*
8:00 AM	---	8:15 AM	0	34	2	0	19	1	0	0	1	0	1	2	*60*
8:15 AM	---	8:30 AM	1	30	2	3	21	0	0	1	0	1	0	0	*59*
8:30 AM	---	8:45 AM	0	31	3	1	24	0	1	1	1	4	0	1	*67*
8:45 AM	---	9:00 AM	1	22	0	1	22	0	0	0	3	1	1	2	*53*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	5	84	6	4	83	1	1	2	9	3	1	2	*201*
7:15 AM	---	8:15 AM	3	106	6	4	93	2	1	2	6	3	1	3	*230*
7:30 AM	---	8:30 AM	4	118	7	6	93	2	0	3	5	4	1	3	*246*
7:45 AM	---	8:45 AM	2	127	9	6	92	2	1	3	6	7	1	4	*260*
8:00 AM	---	9:00 AM	2	117	7	5	86	1	1	2	5	6	2	5	*239*

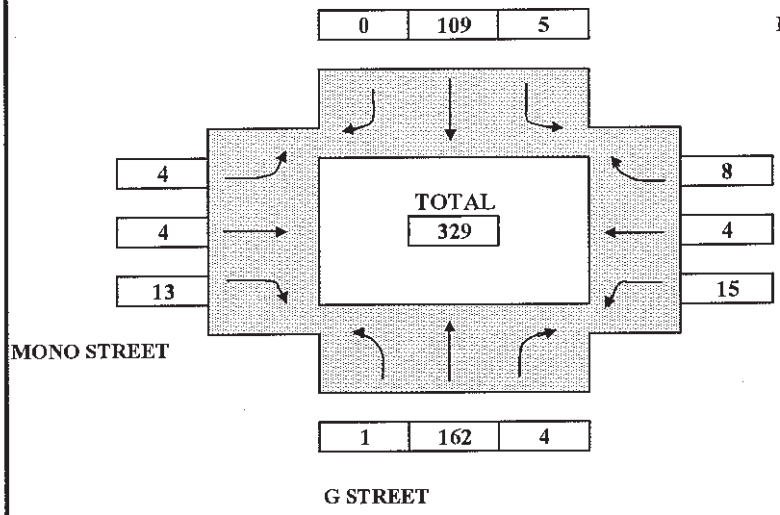
Telephone: (510)232-1271 Fax: (510)232-1272

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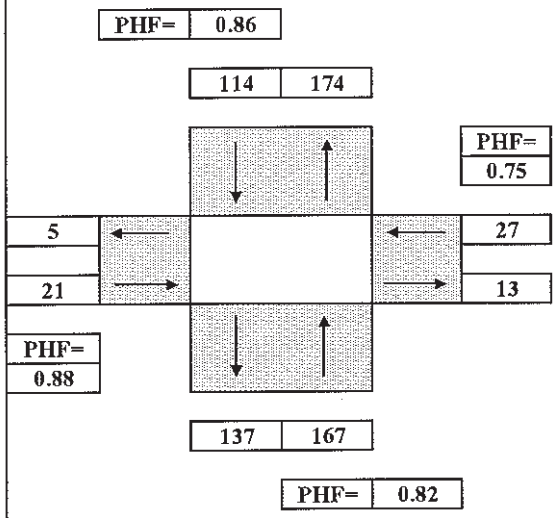
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	G STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	MONO STREET	JURISDICTION:	FRESNO	FILE:	3103016-1PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	1	39	1	3	27	0	1	1	4	5	1	3	*86*
4:15 PM	---	4:30 PM	1	76	1	3	60	0	3	1	7	10	3	5	*170*
4:30 PM	---	4:45 PM	1	112	3	4	87	0	3	2	12	13	4	7	*248*
4:45 PM	---	5:00 PM	1	162	4	5	109	0	4	4	13	15	4	8	*329*
5:00 PM	---	5:15 PM	2	199	5	8	134	0	5	6	15	18	7	12	*411*
5:15 PM	---	5:30 PM	3	237	9	9	155	0	5	7	19	22	9	13	*488*
5:30 PM	---	5:45 PM	3	272	11	13	181	0	5	7	22	26	11	17	*568*
5:45 PM	---	6:00 PM	4	294	12	13	206	2	5	8	25	28	14	17	*628*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	1	39	1	3	27	0	1	1	4	5	1	3	*86*
4:15 PM	---	4:30 PM	0	37	0	0	33	0	2	0	3	5	2	2	*84*
4:30 PM	---	4:45 PM	0	36	2	1	27	0	0	1	5	3	1	2	*78*
4:45 PM	---	5:00 PM	0	50	1	1	22	0	1	2	1	2	0	1	*81*
5:00 PM	---	5:15 PM	1	37	1	3	25	0	1	2	2	3	3	4	*82*
5:15 PM	---	5:30 PM	1	38	4	1	21	0	0	1	4	4	2	1	*77*
5:30 PM	---	5:45 PM	0	35	2	4	26	0	0	0	3	4	2	4	*80*
5:45 PM	---	6:00 PM	1	22	1	0	25	2	0	1	3	2	3	0	*60*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	1	162	4	5	109	0	4	4	13	15	4	8	*329*
4:15 PM	---	5:15 PM	1	160	4	5	107	0	4	5	11	13	6	9	*325*
4:30 PM	---	5:30 PM	2	161	8	6	95	0	2	6	12	12	6	8	*318*
4:45 PM	---	5:45 PM	2	160	8	9	94	0	2	5	10	13	7	10	*320*
5:00 PM	---	6:00 PM	3	132	8	8	97	2	1	4	12	13	10	9	*299*

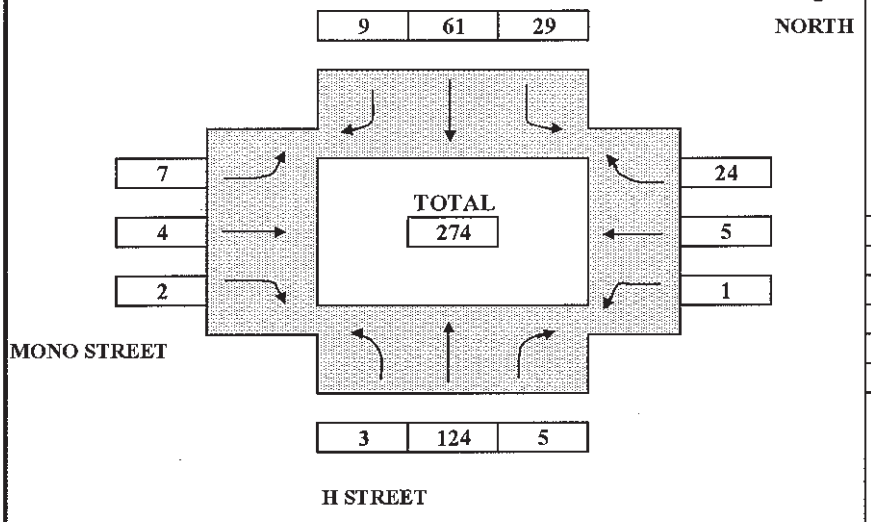
Telephone: (510)232-1271 Fax: (510)232-1272

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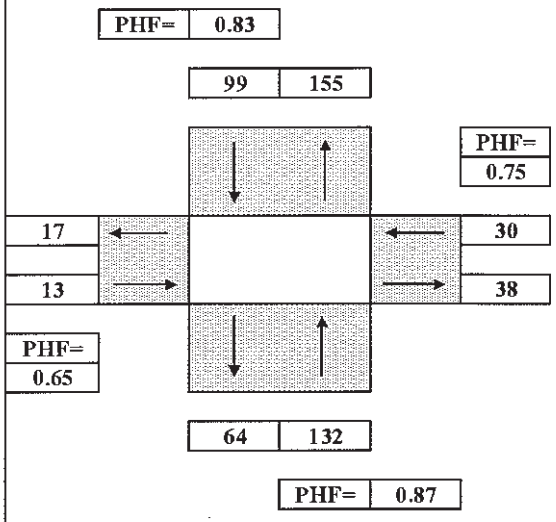
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	H STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	MONO STREET	JURISDICTION:	FRESNO	FILE:	3103016-2AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	3	0	8	8	0	1	0	0	0	3	1	*24*
7:15 AM	---	7:30 AM	0	30	2	12	24	0	1	0	0	0	3	5	*77*
7:30 AM	---	7:45 AM	0	59	3	14	43	2	3	0	1	1	3	9	*138*
7:45 AM	---	8:00 AM	2	94	4	29	53	7	7	1	1	1	3	19	*221*
8:00 AM	---	8:15 AM	2	120	5	36	66	7	8	2	1	1	5	23	*276*
8:15 AM	---	8:30 AM	3	154	7	41	85	9	8	4	2	1	8	29	*351*
8:30 AM	---	8:45 AM	3	170	10	45	90	10	8	7	3	2	8	33	*389*
8:45 AM	---	9:00 AM	4	181	12	47	103	10	8	9	4	2	9	34	*423*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	3	0	8	8	0	1	0	0	0	3	1	*24*
7:15 AM	---	7:30 AM	0	27	2	4	16	0	0	0	0	0	0	4	*53*
7:30 AM	---	7:45 AM	0	29	1	2	19	2	2	0	1	1	0	4	*61*
7:45 AM	---	8:00 AM	2	35	1	15	10	5	4	1	0	0	0	10	*83*
8:00 AM	---	8:15 AM	0	26	1	7	13	0	1	1	0	0	2	4	*55*
8:15 AM	---	8:30 AM	1	34	2	5	19	2	0	2	1	0	3	6	*75*
8:30 AM	---	8:45 AM	0	16	3	4	5	1	0	3	1	1	0	4	*38*
8:45 AM	---	9:00 AM	1	11	2	2	13	0	0	2	1	0	1	1	*34*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	2	94	4	29	53	7	7	1	1	1	3	19	*221*
7:15 AM	---	8:15 AM	2	117	5	28	58	7	7	2	1	1	2	22	*252*
7:30 AM	---	8:30 AM	3	124	5	29	61	9	7	4	2	1	5	24	*274*
7:45 AM	---	8:45 AM	3	111	7	31	47	8	5	7	2	1	5	24	*251*
8:00 AM	---	9:00 AM	2	87	8	18	50	3	1	8	3	1	6	15	*202*

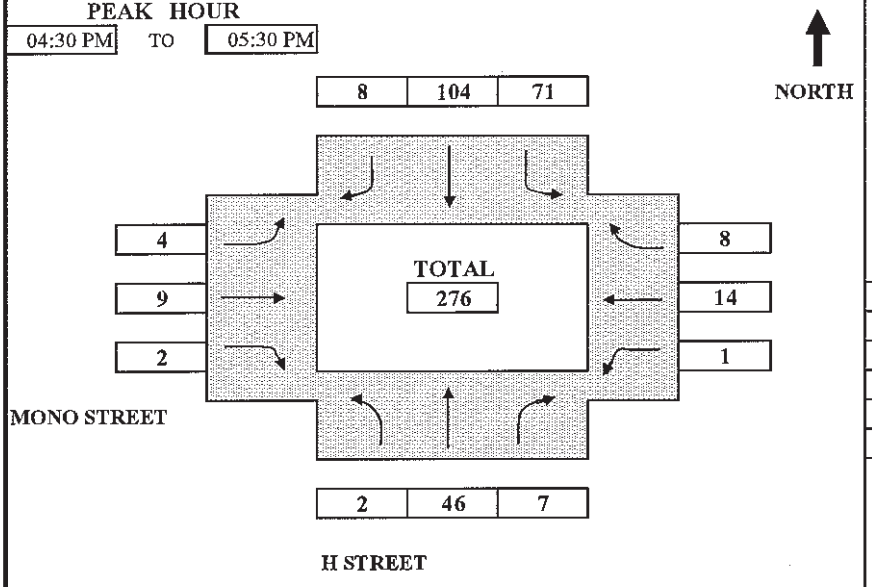
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

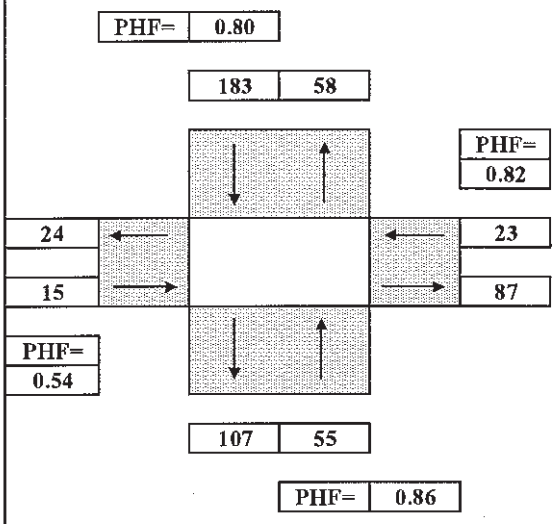
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	H STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	MONO STREET	JURISDICTION:	FRESNO	FILE:	3103016-2PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	2	9	2	16	17	2	1	1	1	0	5	2	*58*
4:15 PM	---	4:30 PM	2	16	3	28	37	4	1	2	1	2	12	2	*110*
4:30 PM	---	4:45 PM	2	24	5	52	66	8	1	3	2	2	15	5	*185*
4:45 PM	---	5:00 PM	3	37	7	64	93	10	2	4	2	2	16	8	*248*
5:00 PM	---	5:15 PM	3	48	10	91	117	11	2	7	3	2	22	9	*325*
5:15 PM	---	5:30 PM	4	62	10	99	141	12	5	11	3	3	26	10	*386*
5:30 PM	---	5:45 PM	4	66	11	103	155	13	5	12	5	3	33	13	*423*
5:45 PM	---	6:00 PM	4	69	13	107	167	13	5	12	7	5	34	15	*451*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	2	9	2	16	17	2	1	1	1	0	5	2	*58*
4:15 PM	---	4:30 PM	0	7	1	12	20	2	0	1	0	2	7	0	*52*
4:30 PM	---	4:45 PM	0	8	2	24	29	4	0	1	1	0	3	3	*75*
4:45 PM	---	5:00 PM	1	13	2	12	27	2	1	1	0	0	1	3	*63*
5:00 PM	---	5:15 PM	0	11	3	27	24	1	0	3	1	0	6	1	*77*
5:15 PM	---	5:30 PM	1	14	0	8	24	1	3	4	0	1	4	1	*61*
5:30 PM	---	5:45 PM	0	4	1	4	14	1	0	1	2	0	7	3	*37*
5:45 PM	---	6:00 PM	0	3	2	4	12	0	0	0	2	2	1	2	*28*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	3	37	7	64	93	10	2	4	2	2	16	8	*248*
4:15 PM	---	5:15 PM	1	39	8	75	100	9	1	6	2	2	17	7	*267*
4:30 PM	---	5:30 PM	2	46	7	71	104	8	4	9	2	1	14	8	*276*
4:45 PM	---	5:45 PM	2	42	6	51	89	5	4	9	3	1	18	8	*238*
5:00 PM	---	6:00 PM	1	32	6	43	74	3	3	8	5	3	18	7	*203*

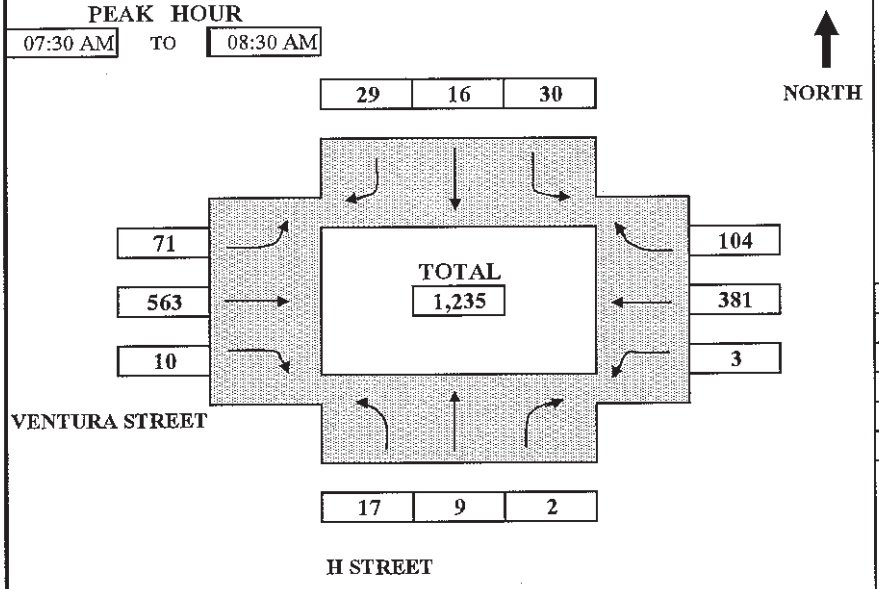
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

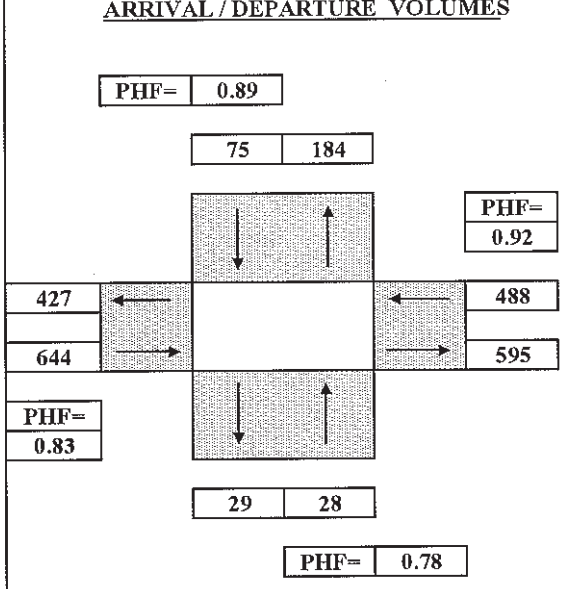
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	H STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	VENTURA STREET	JURISDICTION:	FRESNO	FILE:	3103016-3AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	2	1	0	7	5	4	4	81	3	0	68	9	*184*
7:15 AM	---	7:30 AM	5	4	2	13	8	13	23	200	8	1	149	26	*452*
7:30 AM	---	7:45 AM	9	7	2	21	12	20	37	358	9	2	260	47	*784*
7:45 AM	---	8:00 AM	11	9	2	31	18	25	53	532	14	4	345	69	*1,113*
8:00 AM	---	8:15 AM	19	10	2	40	22	32	69	649	17	4	445	94	*1,403*
8:15 AM	---	8:30 AM	22	13	4	43	24	42	94	763	18	4	530	130	*1,687*
8:30 AM	---	8:45 AM	25	18	4	61	28	46	100	854	22	6	601	147	*1,912*
8:45 AM	---	9:00 AM	26	22	5	70	30	56	109	967	25	8	677	162	*2,157*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	2	1	0	7	5	4	4	81	3	0	68	9	*184*
7:15 AM	---	7:30 AM	3	3	2	6	3	9	19	119	5	1	81	17	*268*
7:30 AM	---	7:45 AM	4	3	0	8	4	7	14	158	1	1	111	21	*332*
7:45 AM	---	8:00 AM	2	2	0	10	6	5	16	174	5	2	85	22	*329*
8:00 AM	---	8:15 AM	8	1	0	9	4	7	16	117	3	0	100	25	*290*
8:15 AM	---	8:30 AM	3	3	2	3	2	10	25	114	1	0	85	36	*284*
8:30 AM	---	8:45 AM	3	5	0	18	4	4	6	91	4	2	71	17	*225*
8:45 AM	---	9:00 AM	1	4	1	9	2	10	9	113	3	2	76	15	*245*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	11	9	2	31	18	25	53	532	14	4	345	69	*1,113*
7:15 AM	---	8:15 AM	17	9	2	33	17	28	65	568	14	4	377	85	*1,219*
7:30 AM	---	8:30 AM	17	9	2	30	16	29	71	563	10	3	381	104	*1,235*
7:45 AM	---	8:45 AM	16	11	2	40	16	26	63	496	13	4	341	100	*1,128*
8:00 AM	---	9:00 AM	15	13	3	39	12	31	56	435	11	4	332	93	*1,044*

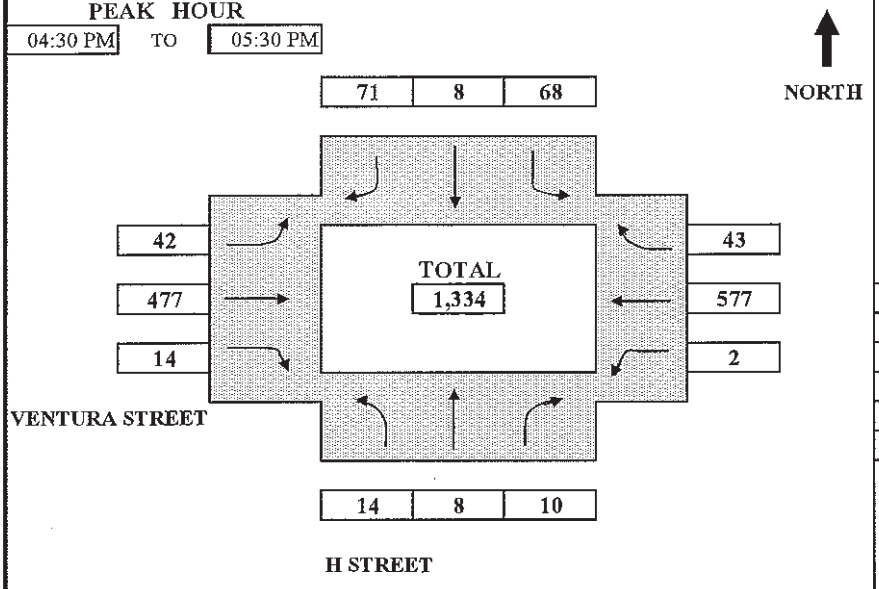
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

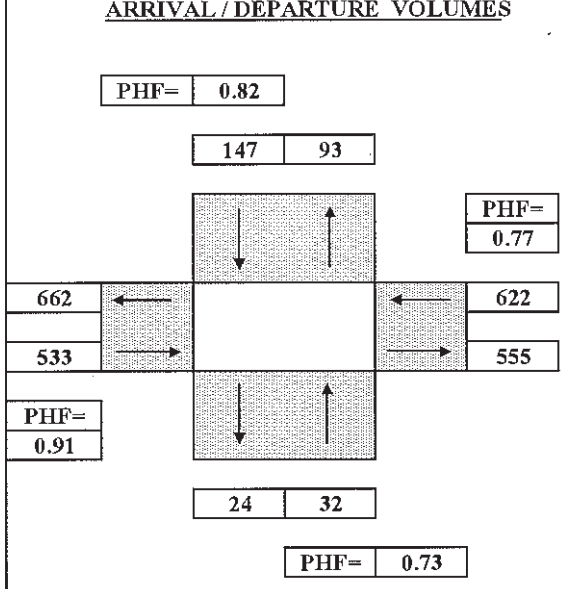
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	H STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	VENTURA STREET	JURISDICTION:	FRESNO	FILE:	3103016-3PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	2	0	3	12	3	19	7	122	5	3	127	11	*314*
4:15 PM	---	4:30 PM	3	3	5	26	5	30	22	239	8	3	213	16	*573*
4:30 PM	---	4:45 PM	6	5	9	39	6	55	30	370	15	3	343	24	*905*
4:45 PM	---	5:00 PM	11	9	11	64	10	71	38	502	18	4	441	32	*1,211*
5:00 PM	---	5:15 PM	14	10	14	79	13	86	51	606	21	5	629	44	*1,572*
5:15 PM	---	5:30 PM	17	11	15	94	13	101	64	716	22	5	790	59	*1,907*
5:30 PM	---	5:45 PM	21	14	16	105	16	118	70	823	24	7	927	66	*2,207*
5:45 PM	---	6:00 PM	24	15	19	124	19	130	76	916	26	7	1,039	72	*2,467*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	2	0	3	12	3	19	7	122	5	3	127	11	*314*
4:15 PM	---	4:30 PM	1	3	2	14	2	11	15	117	3	0	86	5	*259*
4:30 PM	---	4:45 PM	3	2	4	13	1	25	8	131	7	0	130	8	*332*
4:45 PM	---	5:00 PM	5	4	2	25	4	16	8	132	3	1	98	8	*306*
5:00 PM	---	5:15 PM	3	1	3	15	3	15	13	104	3	1	188	12	*361*
5:15 PM	---	5:30 PM	3	1	1	15	0	15	13	110	1	0	161	15	*335*
5:30 PM	---	5:45 PM	4	3	1	11	3	17	6	107	2	2	137	7	*300*
5:45 PM	---	6:00 PM	3	1	3	19	3	12	6	93	2	0	112	6	*260*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	11	9	11	64	10	71	38	502	18	4	441	32	*1,211*
4:15 PM	---	5:15 PM	12	10	11	67	10	67	44	484	16	2	502	33	*1,258*
4:30 PM	---	5:30 PM	14	8	10	68	8	71	42	477	14	2	577	43	*1,334*
4:45 PM	---	5:45 PM	15	9	7	66	10	63	40	453	9	4	584	42	*1,302*
5:00 PM	---	6:00 PM	13	6	8	60	9	59	38	414	8	3	598	40	*1,256*

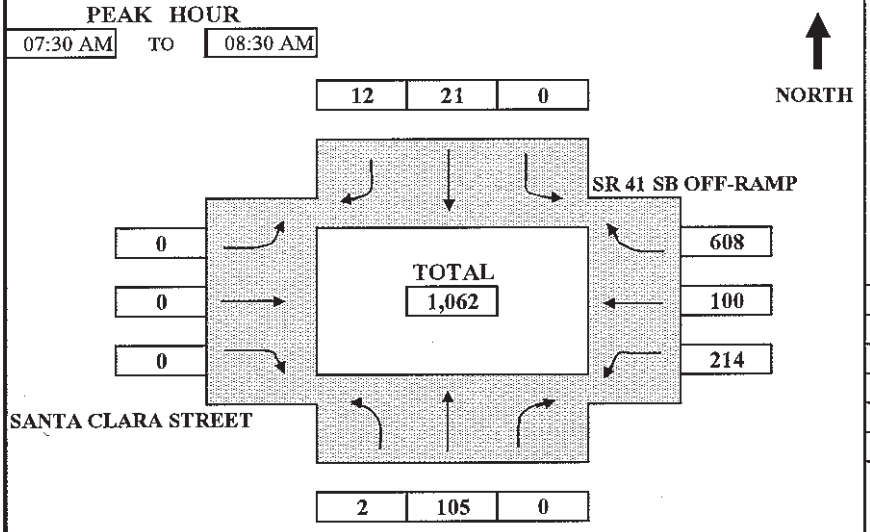
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

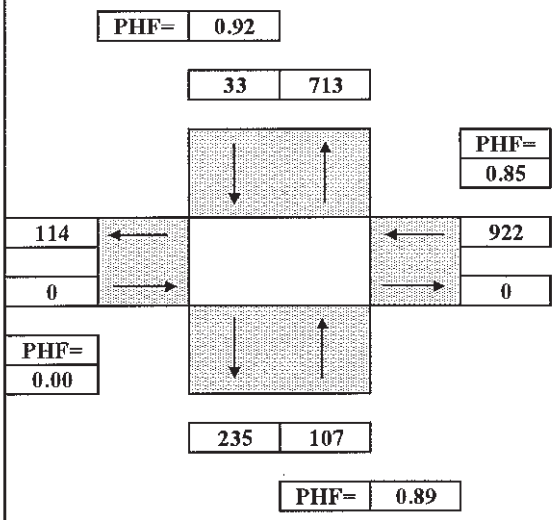
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN		SURVEY DATE:	3/10/2011	DAY: THURSDAY
N-S APPROACH:	O STREET		SURVEY TIME:	7:00 AM	TO 9:00 AM
E-W APPROACH:	SANTA CLARA STREET	- SR-41 SB OFF-RAMP	JURISDICTION:	FRESNO	FILE: 3103016-4AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	1	16		5	2		0	1		39	13	87	*164*
7:15 AM	---	7:30 AM	2	35		6	4		0	1		97	22	234	*401*
7:30 AM	---	7:45 AM	2	64		11	8		0	1		147	49	394	*676*
7:45 AM	---	8:00 AM	4	82		18	10		0	1		221	81	559	*976*
8:00 AM	---	8:15 AM	4	112		24	12		0	1		265	105	697	*1,220*
8:15 AM	---	8:30 AM	4	140		27	16		0	1		311	122	842	*1,463*
8:30 AM	---	8:45 AM	4	165		33	16		0	1		363	135	950	*1,667*
8:45 AM	---	9:00 AM	4	192		39	18		0	1		404	147	1,050	*1,855*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	1	16	0	0	5	2	0	0	1	39	13	87	*164*
7:15 AM	---	7:30 AM	1	19	0	0	1	2	0	0	0	58	9	147	*237*
7:30 AM	---	7:45 AM	0	29	0	0	5	4	0	0	0	50	27	160	*275*
7:45 AM	---	8:00 AM	2	18	0	0	7	2	0	0	0	74	32	165	*300*
8:00 AM	---	8:15 AM	0	30	0	0	6	2	0	0	0	44	24	138	*244*
8:15 AM	---	8:30 AM	0	28	0	0	3	4	0	0	0	46	17	145	*243*
8:30 AM	---	8:45 AM	0	25	0	0	6	0	0	0	0	52	13	108	*204*
8:45 AM	---	9:00 AM	0	27	0	0	6	2	0	0	0	41	12	100	*188*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	4	82	0	0	18	10	0	0	1	221	81	559	*976*
7:15 AM	---	8:15 AM	3	96	0	0	19	10	0	0	0	226	92	610	*1,056*
7:30 AM	---	8:30 AM	2	105	0	0	21	12	0	0	0	214	100	608	*1,062*
7:45 AM	---	8:45 AM	2	101	0	0	22	8	0	0	0	216	86	556	*991*
8:00 AM	---	9:00 AM	0	110	0	0	21	8	0	0	0	183	66	491	*879*

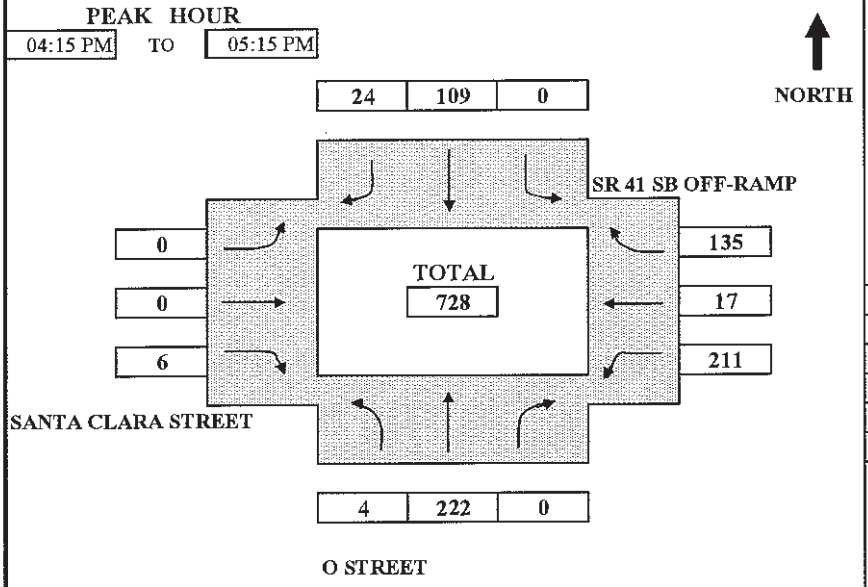
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

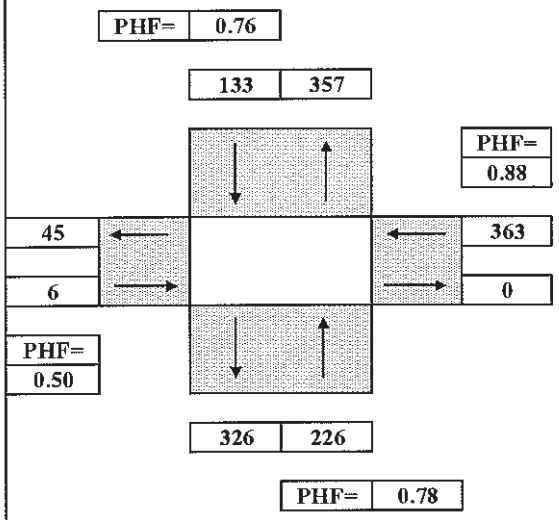
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	O STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	SANTA CLARA STREET - SR-41 SB OFF-RAMP	JURISDICTION:	FRESNO	FILE:	3103016-4PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	1	34		1	26	3	1		1	47	3	48	*165*
4:15 PM	---	4:30 PM	3	74		1	51	7	1		2	97	9	78	*323*
4:30 PM	---	4:45 PM	3	146		1	90	12	1		5	151	14	108	*531*
4:45 PM	---	5:00 PM	5	192		1	121	19	1		6	216	17	143	*721*
5:00 PM	---	5:15 PM	5	256		1	135	27	1		7	258	20	183	*893*
5:15 PM	---	5:30 PM	5	268		1	144	28	1		7	294	21	216	*985*
5:30 PM	---	5:45 PM	6	286		1	147	29	1		9	331	25	252	*1,087*
5:45 PM	---	6:00 PM	6	303		1	153	31	2		9	361	29	275	*1,170*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	1	34	0	1	26	3	1	0	1	47	3	48	*165*
4:15 PM	---	4:30 PM	2	40	0	0	25	4	0	0	1	50	6	30	*158*
4:30 PM	---	4:45 PM	0	72	0	0	39	5	0	0	3	54	5	30	*208*
4:45 PM	---	5:00 PM	2	46	0	0	31	7	0	0	1	65	3	35	*190*
5:00 PM	---	5:15 PM	0	64	0	0	14	8	0	0	1	42	3	40	*172*
5:15 PM	---	5:30 PM	0	12	0	0	9	1	0	0	0	36	1	33	*92*
5:30 PM	---	5:45 PM	1	18	0	0	3	1	0	0	2	37	4	36	*102*
5:45 PM	---	6:00 PM	0	17	0	0	6	2	1	0	0	30	4	23	*83*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	5	192	0	1	121	19	1	0	6	216	17	143	*721*
4:15 PM	---	5:15 PM	4	222	0	0	109	24	0	0	6	211	17	135	*728*
4:30 PM	---	5:30 PM	2	194	0	0	93	21	0	0	5	197	12	138	*662*
4:45 PM	---	5:45 PM	3	140	0	0	57	17	0	0	4	180	11	144	*556*
5:00 PM	---	6:00 PM	1	111	0	0	32	12	1	0	3	145	12	132	*449*

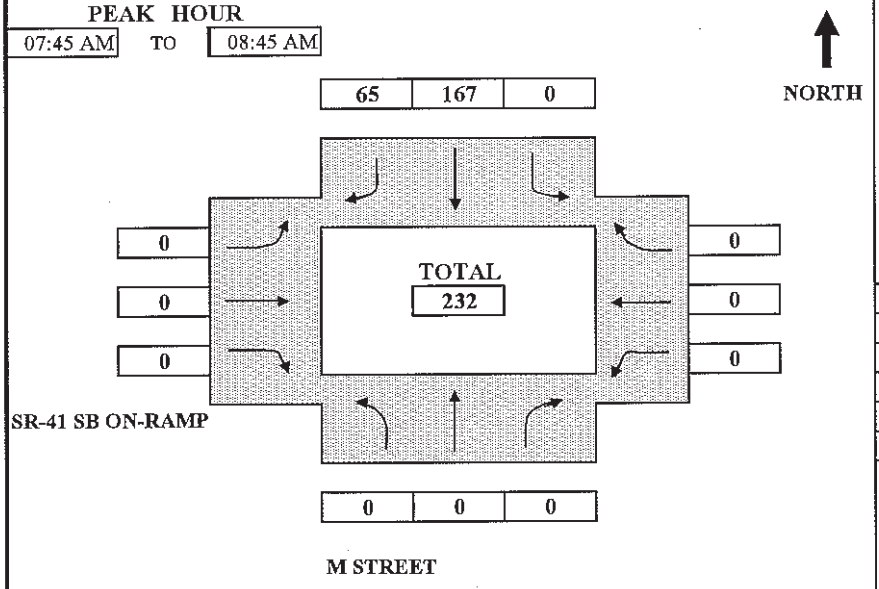
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B.A.Y.M.E.T.R.I.C.S.

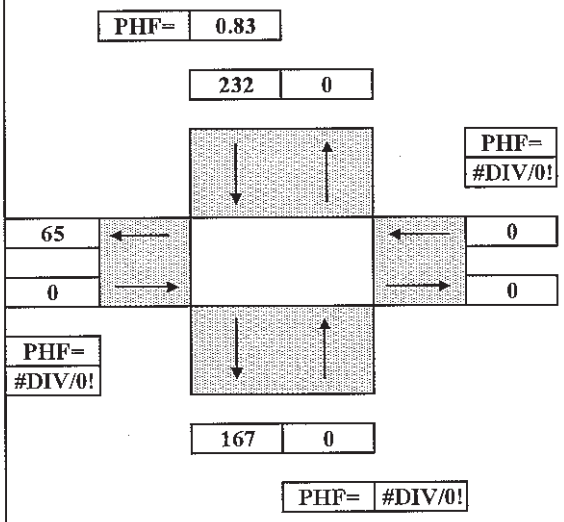
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	M STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	SR-41 SB ON-RAMP	JURISDICTION:	FRESNO	FILE:	3103016-5AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
SURVEY DATA															
7:00 AM	---	7:15 AM					16	19							*35*
7:15 AM	---	7:30 AM					38	27							*65*
7:30 AM	---	7:45 AM					72	37							*109*
7:45 AM	---	8:00 AM					122	57							*179*
8:00 AM	---	8:15 AM					163	71							*234*
8:15 AM	---	8:30 AM					203	89							*292*
8:30 AM	---	8:45 AM					239	102							*341*
8:45 AM	---	9:00 AM					272	119							*391*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	0	0	16	19	0	0	0	0	0	0	*35*
7:15 AM	---	7:30 AM	0	0	0	0	22	8	0	0	0	0	0	0	*30*
7:30 AM	---	7:45 AM	0	0	0	0	34	10	0	0	0	0	0	0	*44*
7:45 AM	---	8:00 AM	0	0	0	0	50	20	0	0	0	0	0	0	*70*
8:00 AM	---	8:15 AM	0	0	0	0	41	14	0	0	0	0	0	0	*55*
8:15 AM	---	8:30 AM	0	0	0	0	40	18	0	0	0	0	0	0	*58*
8:30 AM	---	8:45 AM	0	0	0	0	36	13	0	0	0	0	0	0	*49*
8:45 AM	---	9:00 AM	0	0	0	0	33	17	0	0	0	0	0	0	*50*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	0	0	0	122	57	0	0	0	0	0	0	*179*
7:15 AM	---	8:15 AM	0	0	0	0	147	52	0	0	0	0	0	0	*199*
7:30 AM	---	8:30 AM	0	0	0	0	165	62	0	0	0	0	0	0	*227*
7:45 AM	---	8:45 AM	0	0	0	0	167	65	0	0	0	0	0	0	*232*
8:00 AM	---	9:00 AM	0	0	0	0	150	62	0	0	0	0	0	0	*212*

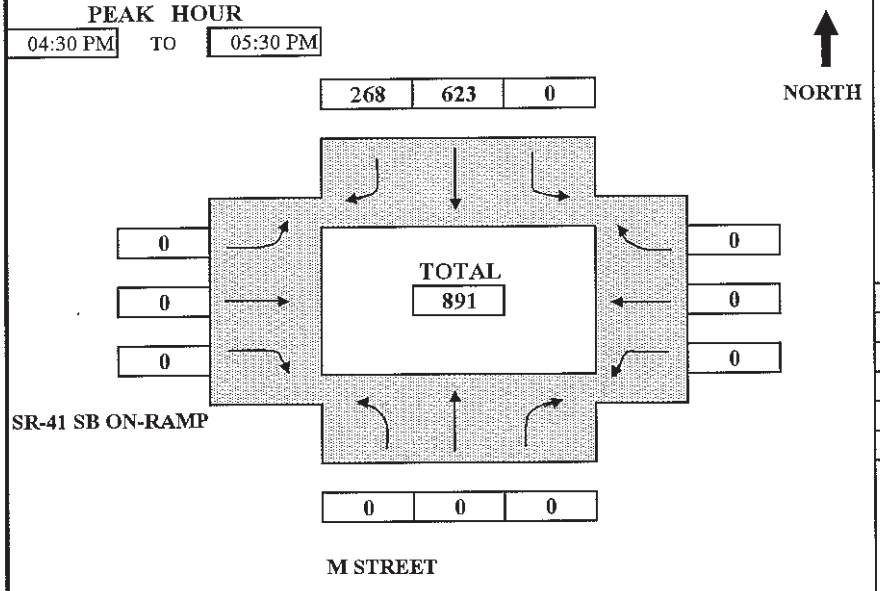
Telephone: (510)232-1271 Fax: (510)232-1272

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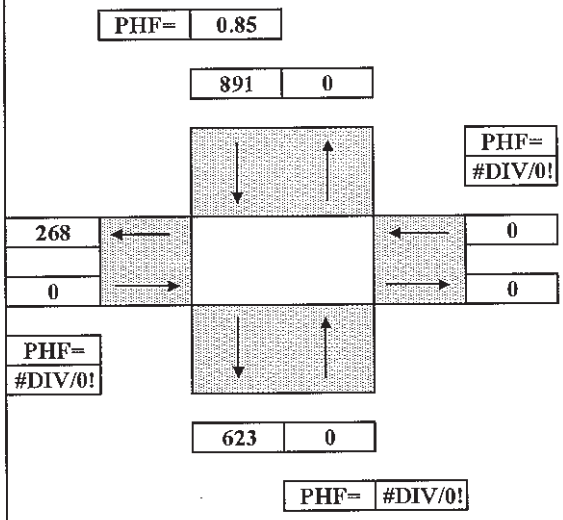
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	M STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	SR-41 SB ON-RAMP	JURISDICTION:	FRESNO	FILE:	3103016-5PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM					162	53							*215*
4:15 PM	---	4:30 PM					284	82							*366*
4:30 PM	---	4:45 PM					473	156							*629*
4:45 PM	---	5:00 PM					653	200							*853*
5:00 PM	---	5:15 PM					805	291							*1,096*
5:15 PM	---	5:30 PM					907	350							*1,257*
5:30 PM	---	5:45 PM					1,002	396							*1,398*
5:45 PM	---	6:00 PM					1,070	424							*1,494*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	0	162	53	0	0	0	0	0	0	*215*
4:15 PM	---	4:30 PM	0	0	0	0	122	29	0	0	0	0	0	0	*151*
4:30 PM	---	4:45 PM	0	0	0	0	189	74	0	0	0	0	0	0	*263*
4:45 PM	---	5:00 PM	0	0	0	0	180	44	0	0	0	0	0	0	*224*
5:00 PM	---	5:15 PM	0	0	0	0	152	91	0	0	0	0	0	0	*243*
5:15 PM	---	5:30 PM	0	0	0	0	102	59	0	0	0	0	0	0	*161*
5:30 PM	---	5:45 PM	0	0	0	0	95	46	0	0	0	0	0	0	*141*
5:45 PM	---	6:00 PM	0	0	0	0	68	28	0	0	0	0	0	0	*96*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	0	653	200	0	0	0	0	0	0	*853*
4:15 PM	---	5:15 PM	0	0	0	0	643	238	0	0	0	0	0	0	*881*
4:30 PM	---	5:30 PM	0	0	0	0	623	268	0	0	0	0	0	0	*891*
4:45 PM	---	5:45 PM	0	0	0	0	529	240	0	0	0	0	0	0	*769*
5:00 PM	---	6:00 PM	0	0	0	0	417	224	0	0	0	0	0	0	*641*

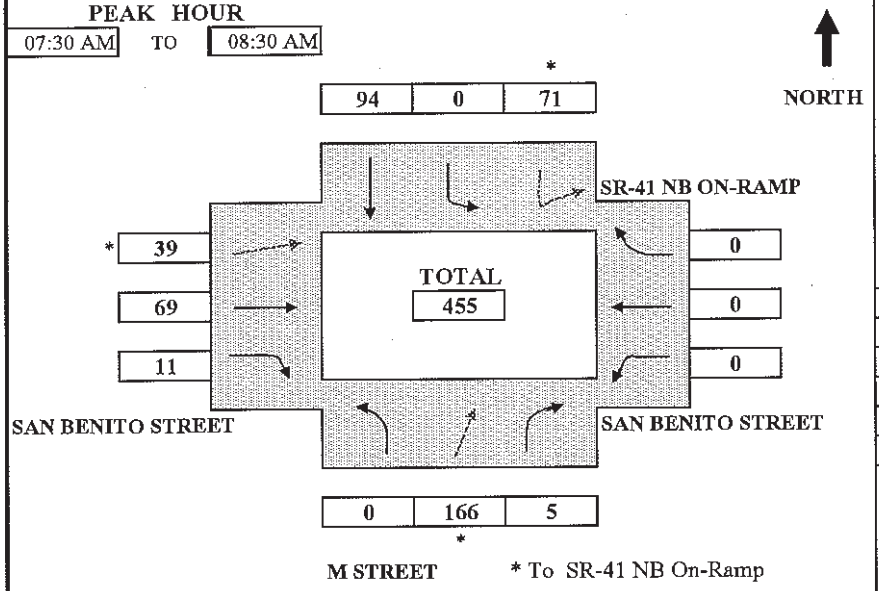
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

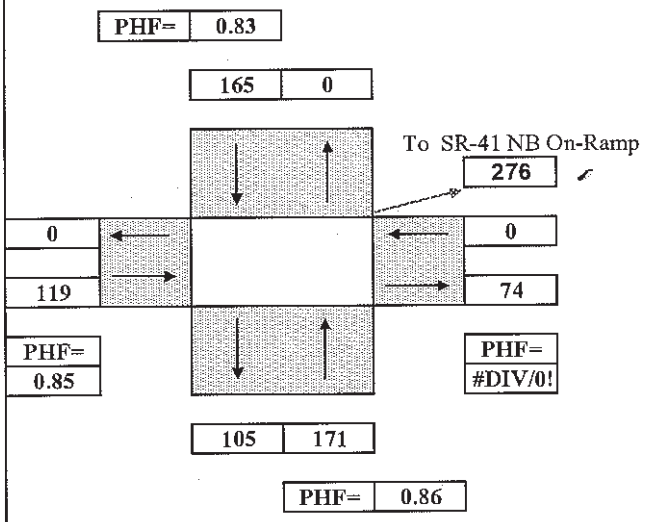
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN		SURVEY DATE:	3/10/2011	DAY: THURSDAY
N-S APPROACH:	M STREET		SURVEY TIME:	7:00 AM	TO 9:00 AM
E-W APPROACH:	SAN BENITO STREET	- SR-41 NB ON-RAMP	JURISDICTION: FRESNO		FILE: 3103016-6AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	NORTHBOUND OnRamp	NORTHBOUND Right	SOUTHBOUND OnRamp	SOUTHBOUND Left	SOUTHBOUND Thru	EASTBOUND OnRamp	EASTBOUND Thru	EASTBOUND Right	WESTBOUND Left	WESTBOUND Thru	WESTBOUND Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM		30	1	6	0	10	6	10	1				*64*
7:15 AM	---	7:30 AM		58	1	16	0	22	7	27	1				*132*
7:30 AM	---	7:45 AM		108	1	31	0	41	15	43	4				*243*
7:45 AM	---	8:00 AM		155	2	54	0	68	22	62	6				*369*
8:00 AM	---	8:15 AM		185	4	65	0	98	34	82	9				*477*
8:15 AM	---	8:30 AM		224	6	87	0	116	46	96	12				*587*
8:30 AM	---	8:45 AM		253	8	102	1	136	66	110	13				*689*
8:45 AM	---	9:00 AM		295	11	119	1	152	82	116	16				*792*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	30	1	6	0	10	6	10	1	0	0	0	*64*
7:15 AM	---	7:30 AM	0	28	0	10	0	12	1	17	0	0	0	0	*68*
7:30 AM	---	7:45 AM	0	50	0	15	0	19	8	16	3	0	0	0	*111*
7:45 AM	---	8:00 AM	0	47	1	23	0	27	7	19	2	0	0	0	*126*
8:00 AM	---	8:15 AM	0	30	2	11	0	30	12	20	3	0	0	0	*108*
8:15 AM	---	8:30 AM	0	39	2	22	0	18	12	14	3	0	0	0	*110*
8:30 AM	---	8:45 AM	0	29	2	15	1	20	20	14	1	0	0	0	*102*
8:45 AM	---	9:00 AM	0	42	3	17	0	16	16	6	3	0	0	0	*103*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	155	2	54	0	68	22	62	6	0	0	0	*369*
7:15 AM	---	8:15 AM	0	155	3	59	0	88	28	72	8	0	0	0	*413*
7:30 AM	---	8:30 AM	0	166	5	71	0	94	39	69	11	0	0	0	*455*
7:45 AM	---	8:45 AM	0	145	7	71	1	95	51	67	9	0	0	0	*446*
8:00 AM	---	9:00 AM	0	140	9	65	1	84	60	54	10	0	0	0	*423*

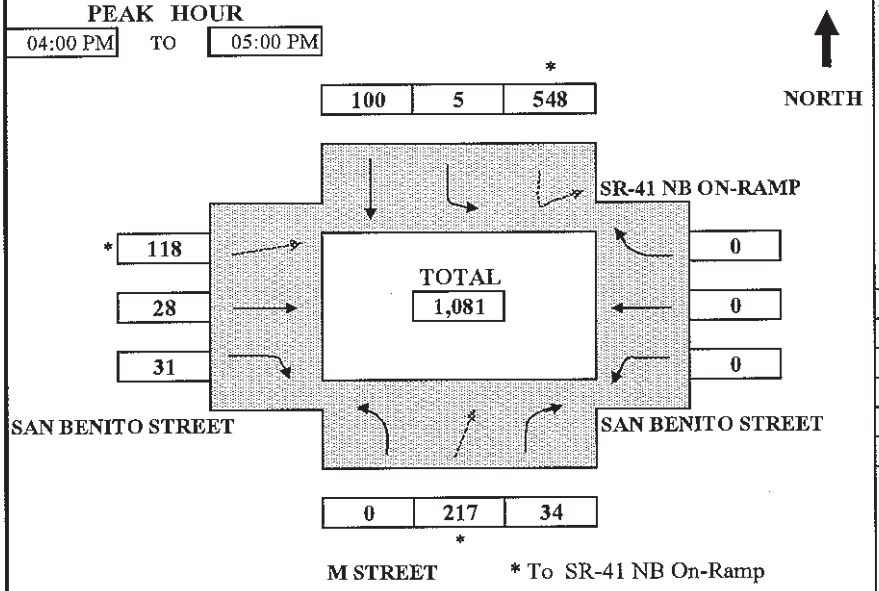
Telephone: (510)232-1271 Fax: (510)232-1272

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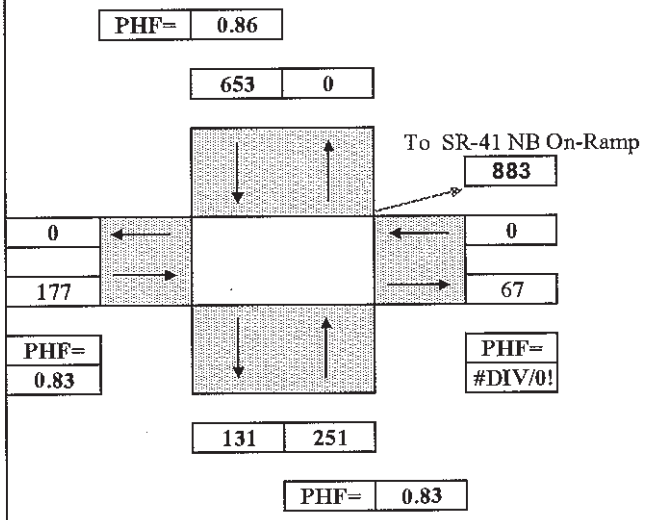
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN		SURVEY DATE:	3/10/2011	DAY: THURSDAY
N-S APPROACH:	M STREET		SURVEY TIME:	4:00 PM	TO 6:00 PM
E-W APPROACH:	SAN BENITO STREET	- SR-41 NB ON-RAMP	JURISDICTION: FRESNO		FILE: 3103016-6PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



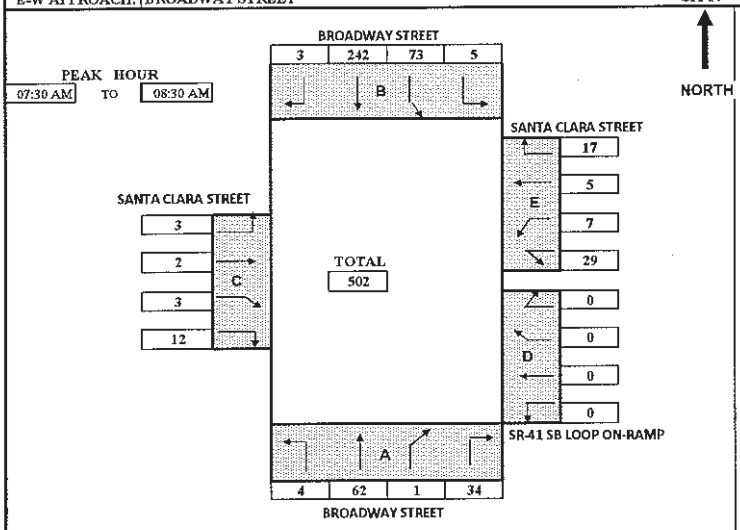
TIME PERIOD From		To	NORTHBOUND Left	OnRamp	Right	SOUTHBOUND OnRamp	Left	Thru	EASTBOUND OnRamp	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM		57	4	138	2	22	32	6	4				*265*
4:15 PM	---	4:30 PM		105	16	234	3	47	58	13	9				*485*
4:30 PM	---	4:45 PM		172	25	390	5	78	85	19	20				*794*
4:45 PM	---	5:00 PM		217	34	548	5	100	118	28	31				*1,081*
5:00 PM	---	5:15 PM		255	40	680	6	119	139	37	35				*1,311*
5:15 PM	---	5:30 PM		303	42	769	8	130	169	39	38				*1,498*
5:30 PM	---	5:45 PM		347	43	854	8	140	186	42	40				*1,660*
5:45 PM	---	6:00 PM		373	44	911	8	151	207	48	41				*1,783*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	57	4	138	2	22	32	6	4	0	0	0	*265*
4:15 PM	---	4:30 PM	0	48	12	96	1	25	26	7	5	0	0	0	*220*
4:30 PM	---	4:45 PM	0	67	9	156	2	31	27	6	11	0	0	0	*309*
4:45 PM	---	5:00 PM	0	45	9	158	0	22	33	9	11	0	0	0	*287*
5:00 PM	---	5:15 PM	0	38	6	132	1	19	21	9	4	0	0	0	*230*
5:15 PM	---	5:30 PM	0	48	2	89	2	11	30	2	3	0	0	0	*187*
5:30 PM	---	5:45 PM	0	44	1	85	0	10	17	3	2	0	0	0	*162*
5:45 PM	---	6:00 PM	0	26	1	57	0	11	21	6	1	0	0	0	*123*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	217	34	548	5	100	118	28	31	0	0	0	*1,081*
4:15 PM	---	5:15 PM	0	198	36	542	4	97	107	31	31	0	0	0	*1,046*
4:30 PM	---	5:30 PM	0	198	26	535	5	83	111	26	29	0	0	0	*1,013*
4:45 PM	---	5:45 PM	0	175	18	464	3	62	101	23	20	0	0	0	*866*
5:00 PM	---	6:00 PM	0	156	10	363	3	51	89	20	10	0	0	0	*702*

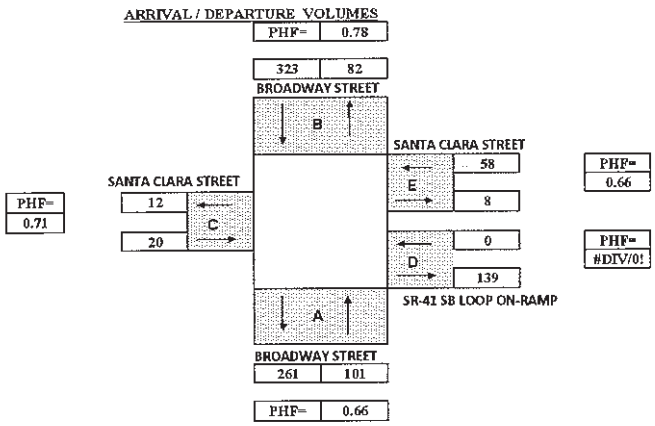
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN		SURVEY DATE:	3/10/2011	DAY: THURSDAY
N-S APPROACH:	SANTA CLARA STREET	- SR-41 SB LOOP ON-RAMP	SURVEY TIME:	7:00 AM	TO 9:00 AM
E-W APPROACH:	BROADWAY STREET		CITY: FRESNO		FILE: 3103016-7AM





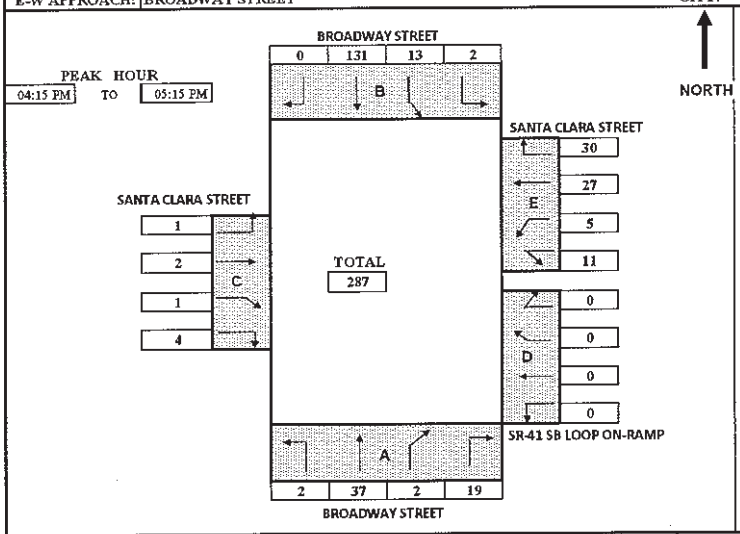
TIME PERIOD			A NB BROADWAY STREET				B SB BROADWAY STREET				C EB SANTA CLARA STREET				D WB SR-41 SB LOOP ON-RAMP				E WB SANTA CLARA STREET				
From		To	AC	AB	AE	AD	BE	BD	BA	BC	CB	CE	CD	CA	DA	DC	DB	DE	ED	EA	EC	EB	TOTAL
SURVEY DATA																							
7:00 AM	---	7:15 AM	5	17	1	7	0	11	46	0	0	0	0	4					4	3	1	4	*103*
7:15 AM	---	7:30 AM	6	32	2	11	0	24	84	0	0	0	0	7					11	4	3	10	*194*
7:30 AM	---	7:45 AM	7	37	2	18	0	36	144	0	1	1	1	10					18	4	3	14	*296*
7:45 AM	---	8:00 AM	9	52	3	28	2	56	204	1	1	2	1	14					24	5	5	18	*425*
8:00 AM	---	8:15 AM	10	77	3	40	4	89	273	1	2	2	2	19					34	10	6	24	*596*
8:15 AM	---	8:30 AM	10	94	3	45	5	97	326	3	3	2	3	19					40	11	8	27	*696*
8:30 AM	---	8:45 AM	13	110	6	52	7	109	365	5	3	3	4	20					43	13	12	30	*795*
8:45 AM	---	9:00 AM	13	116	6	53	7	113	394	5	3	3	4	22					45	13	12	31	*840*
TOTAL BY PERIOD																							
7:00 AM	---	7:15 AM	5	17	1	7	0	11	46	0	0	0	0	4	0	0	0	0	4	3	1	4	*103*
7:15 AM	---	7:30 AM	1	15	1	4	0	13	38	0	0	0	0	3	0	0	0	0	7	1	2	6	*91*
7:30 AM	---	7:45 AM	1	5	0	7	0	12	60	0	1	1	1	3	0	0	0	0	7	0	0	4	*102*
7:45 AM	---	8:00 AM	2	15	1	10	2	20	60	1	0	1	0	4	0	0	0	0	6	1	2	4	*129*
8:00 AM	---	8:15 AM	1	25	0	12	2	33	69	0	1	0	1	5	0	0	0	0	10	5	1	6	*171*
8:15 AM	---	8:30 AM	0	17	0	5	1	8	53	2	1	0	1	0	0	0	0	0	6	1	2	3	*100*
8:30 AM	---	8:45 AM	3	16	3	7	2	12	39	2	0	1	1	1	0	0	0	0	3	2	4	3	*99*
8:45 AM	---	9:00 AM	0	6	0	1	0	4	29	0	0	0	0	2	0	0	0	0	2	0	0	1	*45*
HOURLY TOTALS																							
7:00 AM	---	8:00 AM	9	52	3	28	2	56	204	1	1	2	1	14	0	0	0	0	24	5	5	18	*425*
7:15 AM	---	8:15 AM	5	60	2	33	4	78	227	1	2	2	2	15	0	0	0	0	30	7	5	20	*493*
7:30 AM	---	8:30 AM	4	62	1	34	5	73	242	3	3	2	3	12	0	0	0	0	29	7	5	17	*502*
7:45 AM	---	8:45 AM	6	73	4	34	7	73	221	5	2	2	3	10	0	0	0	0	25	9	9	16	*499*
8:00 AM	---	9:00 AM	4	64	3	25	5	57	190	4	2	1	3	8	0	0	0	0	21	8	7	13	*415*

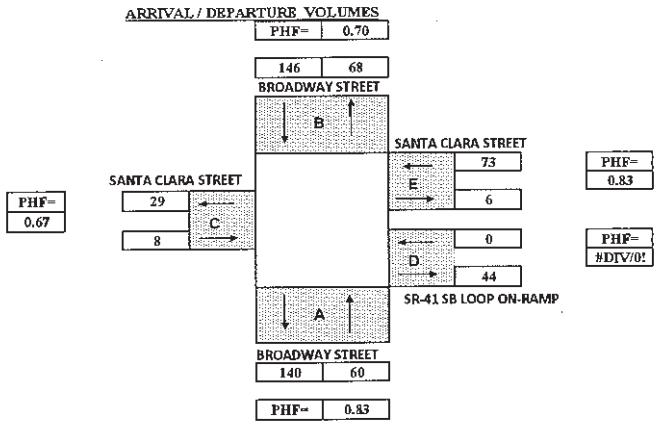
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN		SURVEY DATE:	3/10/2011	DAY: THURSDAY
N-S APPROACH:	SANTA CLARA STREET	- SR-41 SB LOOP ON-RAMP	SURVEY TIME:	4:00 PM	TO 6:00 PM
E-W APPROACH:	BROADWAY STREET		CITY:	FRESNO	FILE: 3103016-7AM





TIME PERIOD From		To	A NB BROADWAY STREET AC	AB	AE	AD	B SB BROADWAY STREET BE	BD	BA	BC	C EB SANTA CLARA STREET CB	CE	CD	CA	D WB SR-41 SB LOOP ON-RAMP DA	DC	DB	DE	E WB SANTA CLARA STREET ED	EA	EC	EB	TOTAL
SURVEY DATA																							
4:00 PM	---	4:15 PM	0	8	2	0	0	2	15	0	0	0	0	0					2	3	5	7	*44*
4:15 PM	---	4:30 PM	0	15	3	4	0	4	45	0	0	0	0	1					6	3	12	11	*104*
4:30 PM	---	4:45 PM	2	29	3	6	1	8	77	0	1	1	0	2					6	7	21	14	*178*
4:45 PM	---	5:00 PM	2	37	3	12	2	11	125	0	1	1	0	4					9	7	25	26	*266*
5:00 PM	---	5:15 PM	2	45	4	19	2	15	146	0	1	2	1	4					13	8	32	37	*331*
5:15 PM	---	5:30 PM	2	52	4	21	3	22	159	0	1	2	1	4					17	9	36	44	*377*
5:30 PM	---	5:45 PM	2	62	4	23	3	27	180	0	1	2	1	6					20	11	40	51	*433*
5:45 PM	---	6:00 PM	2	71	4	24	3	31	199	0	1	3	1	7					21	14	43	54	*478*
TOTAL BY PERIOD																							
4:00 PM	---	4:15 PM	0	8	2	0	0	2	15	0	0	0	0	0	0	0	0	0	2	3	5	7	*44*
4:15 PM	---	4:30 PM	0	7	1	4	0	2	30	0	0	0	0	1	0	0	0	0	4	0	7	4	*60*
4:30 PM	---	4:45 PM	2	14	0	2	1	4	32	0	1	1	0	1	0	0	0	0	0	4	9	3	*74*
4:45 PM	---	5:00 PM	0	8	0	6	1	3	48	0	0	0	0	2	0	0	0	0	3	0	5	12	*88*
5:00 PM	---	5:15 PM	0	8	1	7	0	4	21	0	0	1	1	0	0	0	0	0	4	1	6	11	*65*
5:15 PM	---	5:30 PM	0	7	0	2	1	7	13	0	0	0	0	0	0	0	0	0	4	1	4	7	*46*
5:30 PM	---	5:45 PM	0	10	0	2	0	5	21	0	0	0	0	2	0	0	0	0	3	2	4	7	*56*
5:45 PM	---	6:00 PM	0	9	0	1	0	4	19	0	0	1	0	1	0	0	0	0	1	3	3	3	*45*
HOURLY TOTALS																							
4:00 PM	---	5:00 PM	2	37	3	12	2	11	125	0	1	1	0	4	0	0	0	0	9	7	26	26	*266*
4:15 PM	---	5:15 PM	2	37	2	19	2	13	131	0	1	2	1	4	0	0	0	0	11	5	27	30	*287*
4:30 PM	---	5:30 PM	2	37	1	17	3	18	114	0	1	2	1	3	0	0	0	0	11	6	24	33	*273*
4:45 PM	---	5:45 PM	0	33	1	17	2	19	103	0	0	1	1	4	0	0	0	0	14	4	19	37	*255*
5:00 PM	---	6:00 PM	0	34	1	12	1	20	74	0	0	2	1	3	0	0	0	0	12	7	17	28	*212*

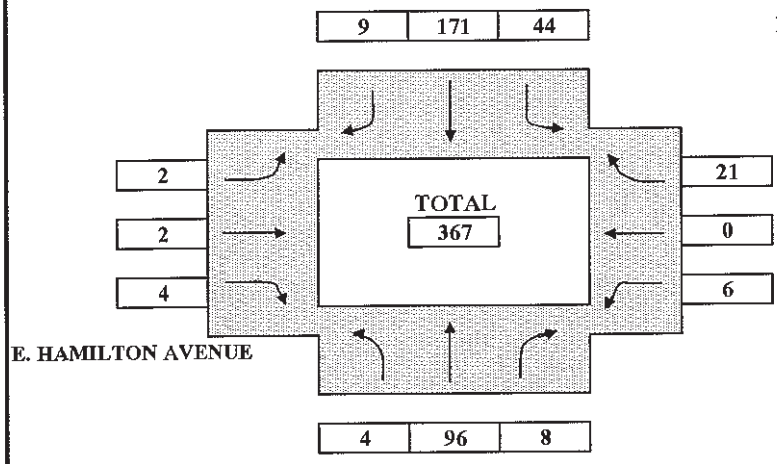
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

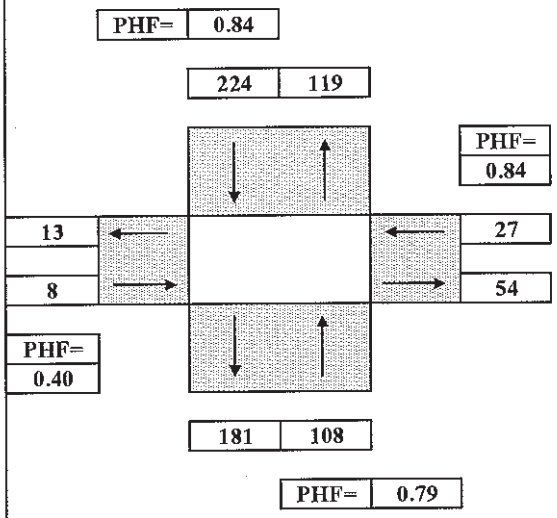
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	E. HAMILTON AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-8AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	3	21	5	4	19	0	0	0	1	2	0	4	*59*
7:15 AM	---	7:30 AM	3	30	5	11	43	4	0	0	1	6	0	6	*109*
7:30 AM	---	7:45 AM	3	52	6	24	77	7	0	0	2	8	0	12	*191*
7:45 AM	---	8:00 AM	3	74	7	35	121	10	2	1	4	10	0	17	*284*
8:00 AM	---	8:15 AM	7	98	7	49	174	10	2	2	5	11	0	22	*387*
8:15 AM	---	8:30 AM	7	126	13	55	214	13	2	2	5	12	0	27	*476*
8:30 AM	---	8:45 AM	7	143	21	60	234	17	4	2	6	19	0	30	*543*
8:45 AM	---	9:00 AM	8	155	23	67	266	20	4	2	7	21	1	36	*610*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	3	21	5	4	19	0	0	0	1	2	0	4	*59*
7:15 AM	---	7:30 AM	0	9	0	7	24	4	0	0	0	4	0	2	*50*
7:30 AM	---	7:45 AM	0	22	1	13	34	3	0	0	1	2	0	6	*82*
7:45 AM	---	8:00 AM	0	22	1	11	44	3	2	1	2	2	0	5	*93*
8:00 AM	---	8:15 AM	4	24	0	14	53	0	0	1	1	1	0	5	*103*
8:15 AM	---	8:30 AM	0	28	6	6	40	3	0	0	0	1	0	5	*89*
8:30 AM	---	8:45 AM	0	17	8	5	20	4	2	0	1	7	0	3	*67*
8:45 AM	---	9:00 AM	1	12	2	7	32	3	0	0	1	2	1	6	*67*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	3	74	7	35	121	10	2	1	4	10	0	17	*284*
7:15 AM	---	8:15 AM	4	77	2	45	155	10	2	2	4	9	0	18	*328*
7:30 AM	---	8:30 AM	4	96	8	44	171	9	2	2	4	6	0	21	*367*
7:45 AM	---	8:45 AM	4	91	15	36	157	10	4	2	4	11	0	18	*352*
8:00 AM	---	9:00 AM	5	81	16	32	145	10	2	1	3	11	1	19	*326*

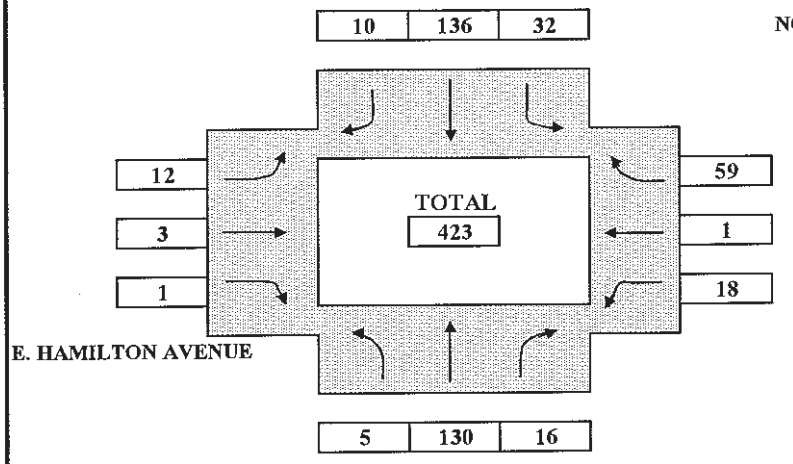
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

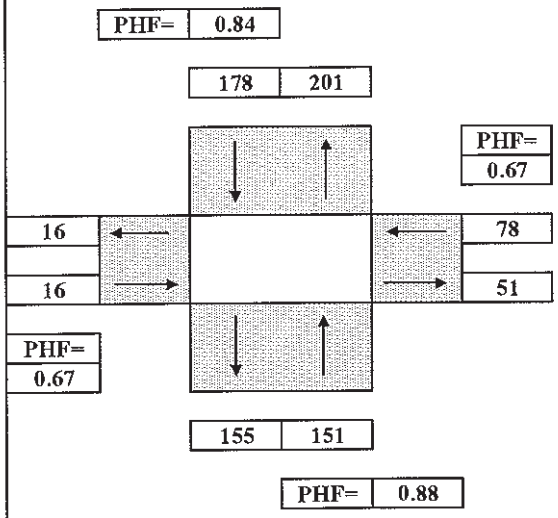
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	VAN NESS AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	E. HAMILTON AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-8PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	18	2	7	22	0	0	0	0	0	0	9	*58*
4:15 PM	---	4:30 PM	0	46	6	17	64	1	2	1	1	3	0	13	*154*
4:30 PM	---	4:45 PM	2	76	10	26	97	5	3	2	1	7	1	29	*259*
4:45 PM	---	5:00 PM	4	112	15	32	130	9	7	2	1	11	1	46	*370*
5:00 PM	---	5:15 PM	5	148	18	39	158	10	12	3	1	18	1	68	*481*
5:15 PM	---	5:30 PM	8	183	20	42	172	10	13	4	1	18	1	78	*550*
5:30 PM	---	5:45 PM	8	197	22	42	189	10	13	4	1	18	1	87	*592*
5:45 PM	---	6:00 PM	8	208	22	42	202	10	13	4	1	19	1	88	*618*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	18	2	7	22	0	0	0	0	0	0	9	*58*
4:15 PM	---	4:30 PM	0	28	4	10	42	1	2	1	1	3	0	4	*96*
4:30 PM	---	4:45 PM	2	30	4	9	33	4	1	1	0	4	1	16	*105*
4:45 PM	---	5:00 PM	2	36	5	6	33	4	4	0	0	4	0	17	*111*
5:00 PM	---	5:15 PM	1	36	3	7	28	1	5	1	0	7	0	22	*111*
5:15 PM	---	5:30 PM	3	35	2	3	14	0	1	1	0	0	0	10	*69*
5:30 PM	---	5:45 PM	0	14	2	0	17	0	0	0	0	0	0	9	*42*
5:45 PM	---	6:00 PM	0	11	0	0	13	0	0	0	0	1	0	1	*26*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	4	112	15	32	130	9	7	2	1	11	1	46	*370*
4:15 PM	---	5:15 PM	5	130	16	32	136	10	12	3	1	18	1	59	*423*
4:30 PM	---	5:30 PM	8	137	14	25	108	9	11	3	0	15	1	65	*396*
4:45 PM	---	5:45 PM	6	121	12	16	92	5	10	2	0	11	0	58	*333*
5:00 PM	---	6:00 PM	4	96	7	10	72	1	6	2	0	8	0	42	*248*

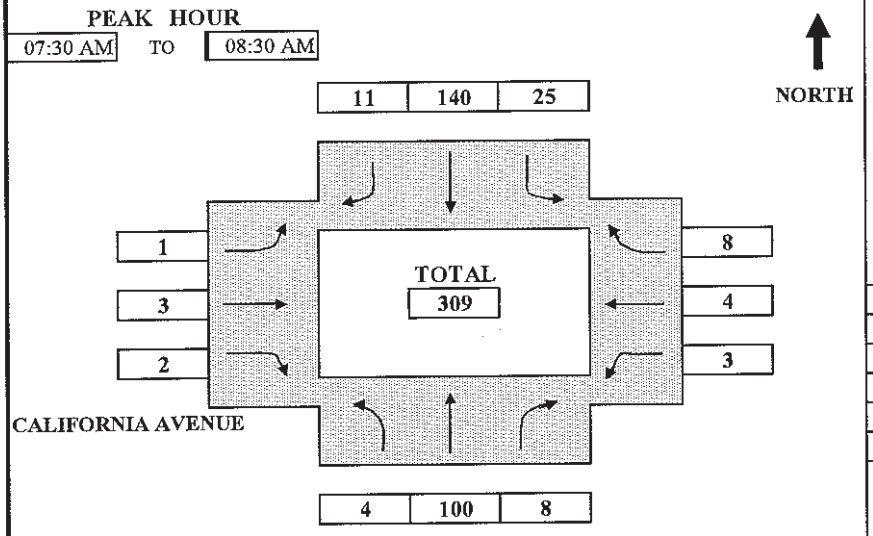
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

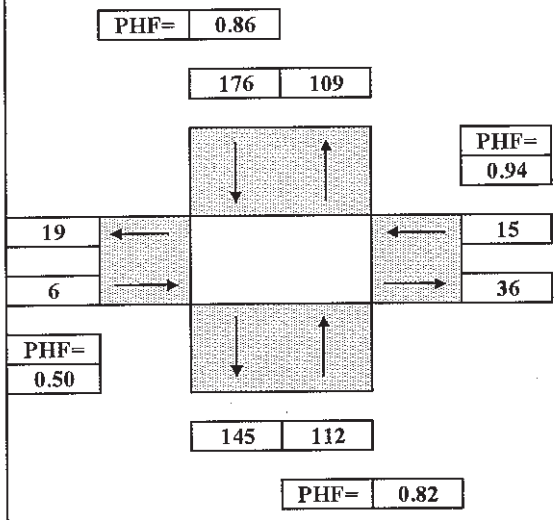
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	S. VAN NESS AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	CALIFORNIA AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-9AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	1	12	2	4	19	2	0	0	0	2	1	1	*44*
7:15 AM	---	7:30 AM	1	25	4	9	39	3	0	0	1	5	1	3	*91*
7:30 AM	---	7:45 AM	2	52	5	17	67	4	0	0	2	6	1	6	*162*
7:45 AM	---	8:00 AM	4	71	8	21	101	9	1	2	2	7	2	8	*236*
8:00 AM	---	8:15 AM	5	102	10	27	144	11	1	3	3	7	4	10	*327*
8:15 AM	---	8:30 AM	5	125	12	34	179	14	1	3	3	8	5	11	*400*
8:30 AM	---	8:45 AM	7	147	13	36	206	16	3	4	4	11	5	13	*465*
8:45 AM	---	9:00 AM	8	175	15	41	232	18	3	4	4	13	6	14	*533*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	1	12	2	4	19	2	0	0	0	2	1	1	*44*
7:15 AM	---	7:30 AM	0	13	2	5	20	1	0	0	1	3	0	2	*47*
7:30 AM	---	7:45 AM	1	27	1	8	28	1	0	0	1	1	0	3	*71*
7:45 AM	---	8:00 AM	2	19	3	4	34	5	1	2	0	1	1	2	*74*
8:00 AM	---	8:15 AM	1	31	2	6	43	2	0	1	1	0	2	2	*91*
8:15 AM	---	8:30 AM	0	23	2	7	35	3	0	0	0	1	1	1	*73*
8:30 AM	---	8:45 AM	2	22	1	2	27	2	2	1	1	3	0	2	*65*
8:45 AM	---	9:00 AM	1	28	2	5	26	2	0	0	0	2	1	1	*68*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	4	71	8	21	101	9	1	2	2	7	2	8	*236*
7:15 AM	---	8:15 AM	4	90	8	23	125	9	1	3	3	5	3	9	*283*
7:30 AM	---	8:30 AM	4	100	8	25	140	11	1	3	2	3	4	8	*309*
7:45 AM	---	8:45 AM	5	95	8	19	139	12	3	4	2	5	4	7	*303*
8:00 AM	---	9:00 AM	4	104	7	20	131	9	2	2	2	6	4	6	*297*

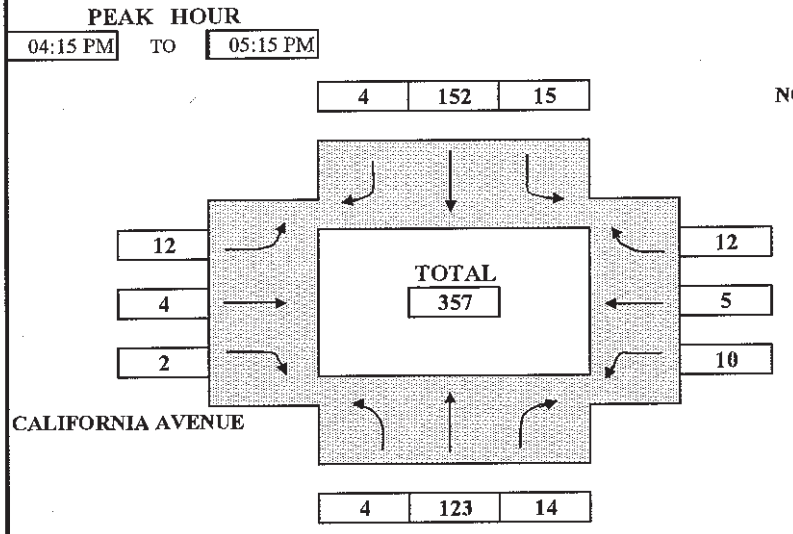
Telephone: (510)232-1271 Fax: (510)232-1272

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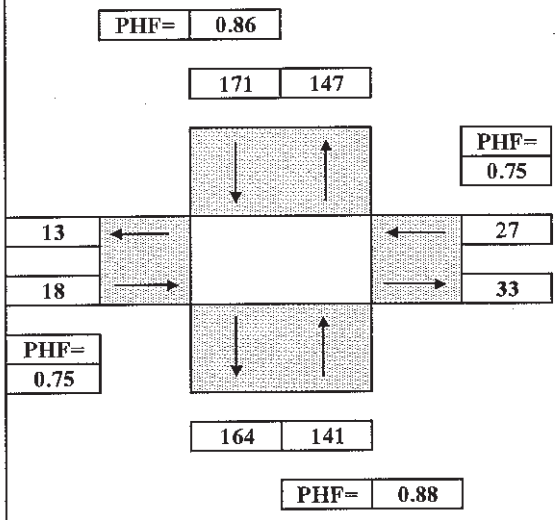
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	S. VAN NESS AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	CALIFORNIA AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-9PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	1	23	2	4	29	2	3	0	0	3	4	4	*75*
4:15 PM	---	4:30 PM	1	48	5	6	70	3	5	1	1	5	6	7	*158*
4:30 PM	---	4:45 PM	3	80	10	9	105	5	8	3	1	7	7	8	*246*
4:45 PM	---	5:00 PM	4	115	14	13	138	5	10	3	2	11	9	11	*335*
5:00 PM	---	5:15 PM	5	146	16	19	181	6	15	4	2	13	9	16	*432*
5:15 PM	---	5:30 PM	8	170	17	24	203	7	18	5	2	16	11	18	*499*
5:30 PM	---	5:45 PM	8	187	19	27	214	10	20	5	2	18	12	24	*546*
5:45 PM	---	6:00 PM	9	199	22	32	231	12	22	7	2	19	12	28	*595*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	1	23	2	4	29	2	3	0	0	3	4	4	*75*
4:15 PM	---	4:30 PM	0	25	3	2	41	1	2	1	1	2	2	3	*83*
4:30 PM	---	4:45 PM	2	32	5	3	35	2	3	2	0	2	1	1	*88*
4:45 PM	---	5:00 PM	1	35	4	4	33	0	2	0	1	4	2	3	*89*
5:00 PM	---	5:15 PM	1	31	2	6	43	1	5	1	0	2	0	5	*97*
5:15 PM	---	5:30 PM	3	24	1	5	22	1	3	1	0	3	2	2	*67*
5:30 PM	---	5:45 PM	0	17	2	3	11	3	2	0	0	2	1	6	*47*
5:45 PM	---	6:00 PM	1	12	3	5	17	2	2	2	0	1	0	4	*49*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	4	115	14	13	138	5	10	3	2	11	9	11	*335*
4:15 PM	---	5:15 PM	4	123	14	15	152	4	12	4	2	10	5	12	*357*
4:30 PM	---	5:30 PM	7	122	12	18	133	4	13	4	1	11	5	11	*341*
4:45 PM	---	5:45 PM	5	107	9	18	109	5	12	2	1	11	5	16	*300*
5:00 PM	---	6:00 PM	5	84	8	19	93	7	12	4	0	8	3	17	*260*

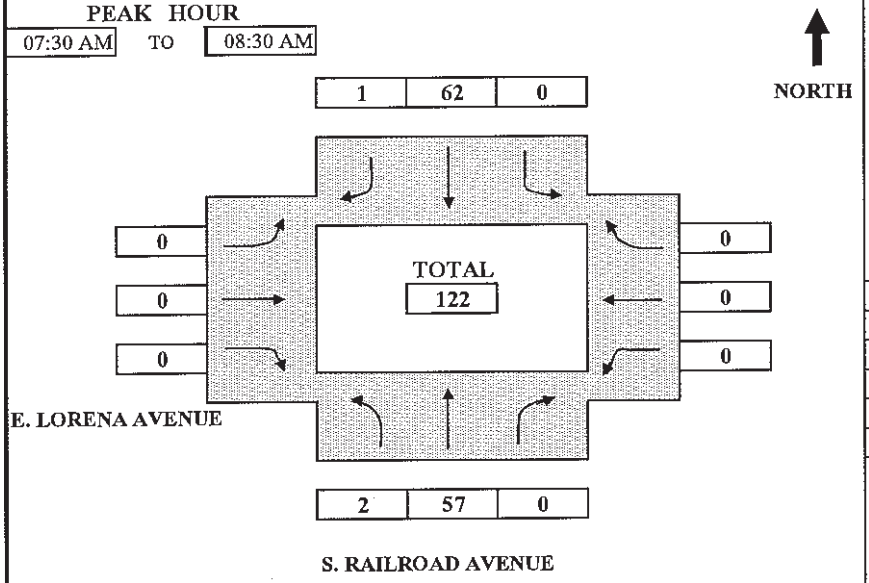
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B.A.Y.M.E.T.R.I.C.S.

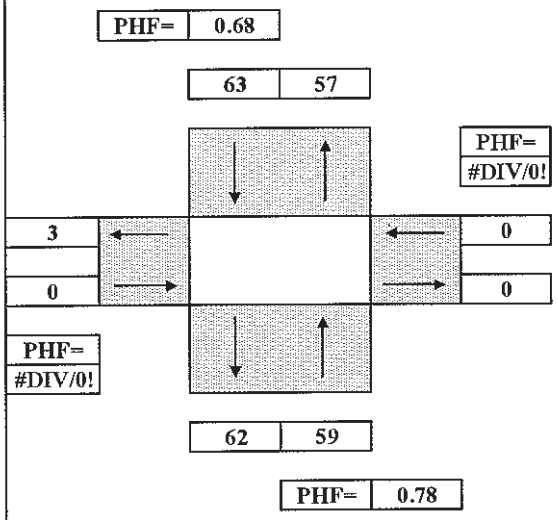
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	S. RAILROAD AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	E. LORENA AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-10AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	5			7	0	0		0				*12*
7:15 AM	---	7:30 AM	1	15			17	0	0		0				*33*
7:30 AM	---	7:45 AM	2	33			40	0	0		0				*75*
7:45 AM	---	8:00 AM	3	45			56	1	0		0				*105*
8:00 AM	---	8:15 AM	3	58			67	1	0		0				*129*
8:15 AM	---	8:30 AM	3	72			79	1	0		0				*155*
8:30 AM	---	8:45 AM	3	83			97	1	0		0				*184*
8:45 AM	---	9:00 AM	4	98			116	1	0		0				*219*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	5	0	0	7	0	0	0	0	0	0	0	*12*
7:15 AM	---	7:30 AM	1	10	0	0	10	0	0	0	0	0	0	0	*21*
7:30 AM	---	7:45 AM	1	18	0	0	23	0	0	0	0	0	0	0	*42*
7:45 AM	---	8:00 AM	1	12	0	0	16	1	0	0	0	0	0	0	*30*
8:00 AM	---	8:15 AM	0	13	0	0	11	0	0	0	0	0	0	0	*24*
8:15 AM	---	8:30 AM	0	14	0	0	12	0	0	0	0	0	0	0	*26*
8:30 AM	---	8:45 AM	0	11	0	0	18	0	0	0	0	0	0	0	*29*
8:45 AM	---	9:00 AM	1	15	0	0	19	0	0	0	0	0	0	0	*35*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	3	45	0	0	56	1	0	0	0	0	0	0	*105*
7:15 AM	---	8:15 AM	3	53	0	0	60	1	0	0	0	0	0	0	*117*
7:30 AM	---	8:30 AM	2	57	0	0	62	1	0	0	0	0	0	0	*122*
7:45 AM	---	8:45 AM	1	50	0	0	57	1	0	0	0	0	0	0	*109*
8:00 AM	---	9:00 AM	1	53	0	0	60	0	0	0	0	0	0	0	*114*

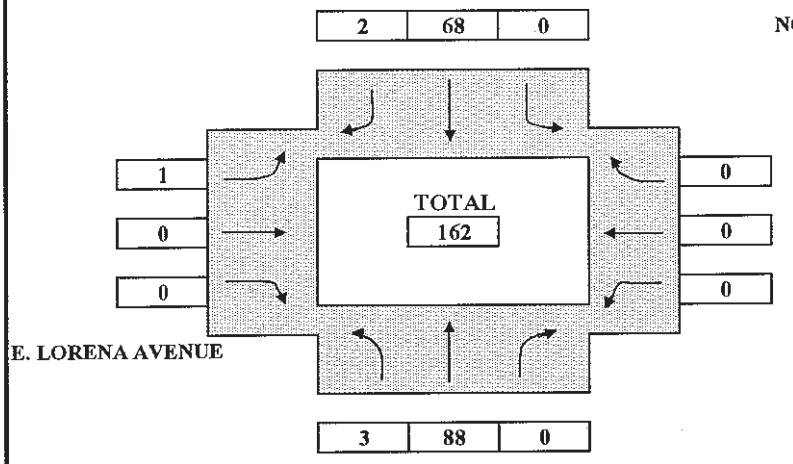
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B.A.Y.M.E.T.R.I.C.S.

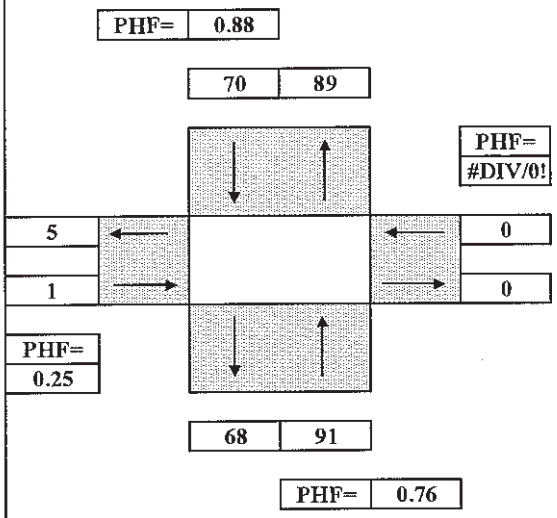
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	S. RAILROAD AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	E. LORENA AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-10PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	0	19			19	0	0		2				*40*
4:15 PM	---	4:30 PM	1	45			38	1	0		2				*87*
4:30 PM	---	4:45 PM	1	60			51	1	0		2				*115*
4:45 PM	---	5:00 PM	1	79			69	2	0		2				*153*
5:00 PM	---	5:15 PM	3	107			87	2	1		2				*202*
5:15 PM	---	5:30 PM	4	130			99	2	1		2				*238*
5:30 PM	---	5:45 PM	6	146			110	2	1		3				*268*
5:45 PM	---	6:00 PM	6	155			119	2	1		4				*287*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	19	0	0	19	0	0	0	2	0	0	0	*40*
4:15 PM	---	4:30 PM	1	26	0	0	19	1	0	0	0	0	0	0	*47*
4:30 PM	---	4:45 PM	0	15	0	0	13	0	0	0	0	0	0	0	*28*
4:45 PM	---	5:00 PM	0	19	0	0	18	1	0	0	0	0	0	0	*38*
5:00 PM	---	5:15 PM	2	28	0	0	18	0	1	0	0	0	0	0	*49*
5:15 PM	---	5:30 PM	1	23	0	0	12	0	0	0	0	0	0	0	*36*
5:30 PM	---	5:45 PM	2	16	0	0	11	0	0	0	1	0	0	0	*30*
5:45 PM	---	6:00 PM	0	9	0	0	9	0	0	0	1	0	0	0	*19*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	1	79	0	0	69	2	0	0	2	0	0	0	*153*
4:15 PM	---	5:15 PM	3	88	0	0	68	2	1	0	0	0	0	0	*162*
4:30 PM	---	5:30 PM	3	85	0	0	61	1	1	0	0	0	0	0	*151*
4:45 PM	---	5:45 PM	5	86	0	0	59	1	1	0	1	0	0	0	*153*
5:00 PM	---	6:00 PM	5	76	0	0	50	0	1	0	2	0	0	0	*134*

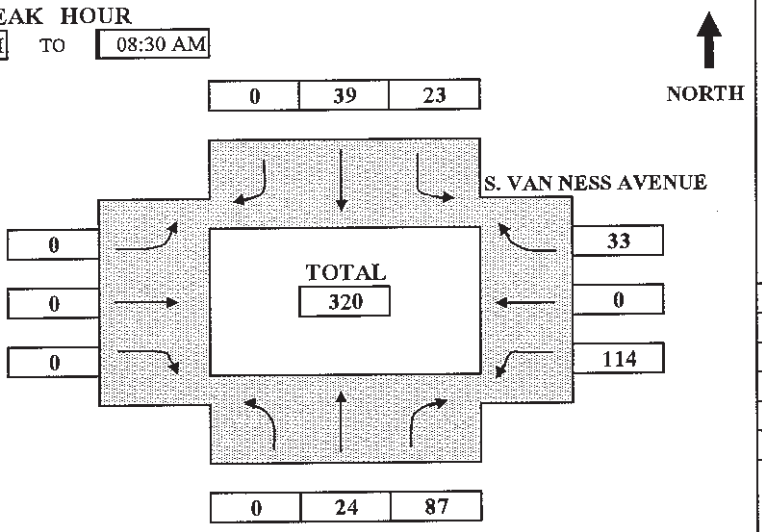
Telephone: (510)232-1271 Fax: (510)232-1272

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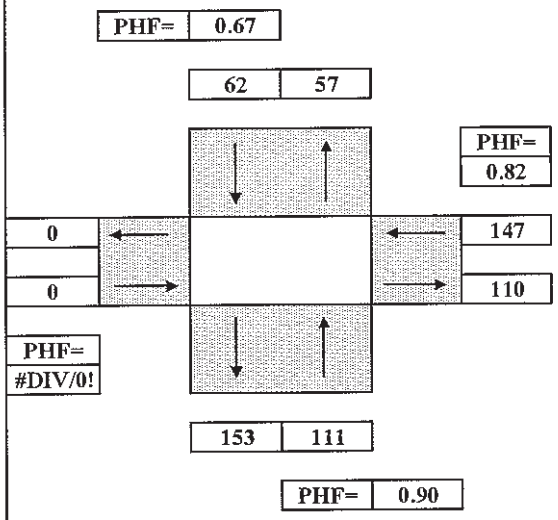
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	S. RAILROAD AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	S. VAN NESS AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-11AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM		0	11	4	2					17		5	*39*
7:15 AM	---	7:30 AM		5	22	7	10					36		10	*90*
7:30 AM	---	7:45 AM		13	42	17	23					57		20	*172*
7:45 AM	---	8:00 AM		19	60	21	35					86		26	*247*
8:00 AM	---	8:15 AM		21	89	26	41					120		37	*334*
8:15 AM	---	8:30 AM		29	109	30	49					150		43	*410*
8:30 AM	---	8:45 AM		31	127	37	60					174		52	*481*
8:45 AM	---	9:00 AM		40	148	47	69					196		58	*558*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	0	11	4	2	0	0	0	0	17	0	5	*39*
7:15 AM	---	7:30 AM	0	5	11	3	8	0	0	0	0	19	0	5	*51*
7:30 AM	---	7:45 AM	0	8	20	10	13	0	0	0	0	21	0	10	*82*
7:45 AM	---	8:00 AM	0	6	18	4	12	0	0	0	0	29	0	6	*75*
8:00 AM	---	8:15 AM	0	2	29	5	6	0	0	0	0	34	0	11	*87*
8:15 AM	---	8:30 AM	0	8	20	4	8	0	0	0	0	30	0	6	*76*
8:30 AM	---	8:45 AM	0	2	18	7	11	0	0	0	0	24	0	9	*71*
8:45 AM	---	9:00 AM	0	9	21	10	9	0	0	0	0	22	0	6	*77*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	19	60	21	35	0	0	0	0	86	0	26	*247*
7:15 AM	---	8:15 AM	0	21	78	22	39	0	0	0	0	103	0	32	*295*
7:30 AM	---	8:30 AM	0	24	87	23	39	0	0	0	0	114	0	33	*320*
7:45 AM	---	8:45 AM	0	18	85	20	37	0	0	0	0	117	0	32	*309*
8:00 AM	---	9:00 AM	0	21	88	26	34	0	0	0	0	110	0	32	*311*

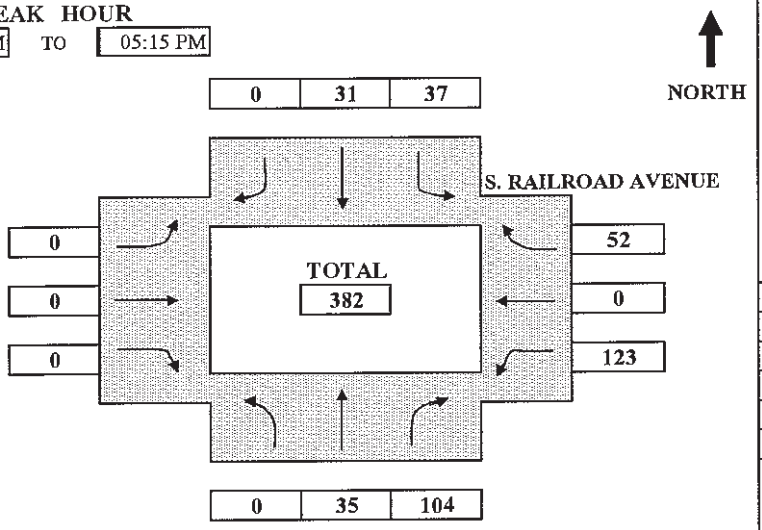
Telephone: (510)232-1271 Fax: (510)232-1272

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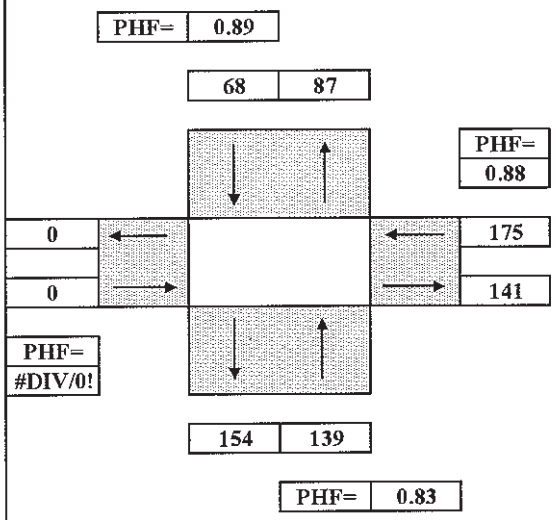
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/10/2011	DAY:	THURSDAY
N-S APPROACH:	S. VAN NESS AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	S. RAILROAD AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-11PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM		12	18	6	11					23		7	*77*
4:15 PM	---	4:30 PM		22	38	15	21					53		23	*172*
4:30 PM	---	4:45 PM		33	69	23	26					86		27	*264*
4:45 PM	---	5:00 PM		42	97	35	32					118		37	*361*
5:00 PM	---	5:15 PM		47	122	43	42					146		59	*459*
5:15 PM	---	5:30 PM		59	148	45	52					160		70	*534*
5:30 PM	---	5:45 PM		69	164	49	58					160		76	*576*
5:45 PM	---	6:00 PM		74	174	51	64					176		80	*619*
TOTAL BY PERIOD														185	
4:00 PM	---	4:15 PM	0	12	18	6	11	0	0	0	0	23	0	7	*77*
4:15 PM	---	4:30 PM	0	10	20	9	10	0	0	0	0	30	0	16	*95*
4:30 PM	---	4:45 PM	0	11	31	8	5	0	0	0	0	33	0	4	*92*
4:45 PM	---	5:00 PM	0	9	28	12	6	0	0	0	0	32	0	10	*97*
5:00 PM	---	5:15 PM	0	5	25	8	10	0	0	0	0	28	0	22	*98*
5:15 PM	---	5:30 PM	0	12	26	2	10	0	0	0	0	14	0	11	*75*
5:30 PM	---	5:45 PM	0	10	16	4	6	0	0	0	0	0	0	6	*42*
5:45 PM	---	6:00 PM	0	5	10	2	6	0	0	0	0	16	0	4	*43*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	42	97	35	32	0	0	0	0	118	0	37	*361*
4:15 PM	---	5:15 PM	0	35	104	37	31	0	0	0	0	123	0	52	*382*
4:30 PM	---	5:30 PM	0	37	110	30	31	0	0	0	0	107	0	47	*362*
4:45 PM	---	5:45 PM	0	36	95	26	32	0	0	0	0	74	0	49	*312*
5:00 PM	---	6:00 PM	0	32	77	16	32	0	0	0	0	58	0	43	*258*

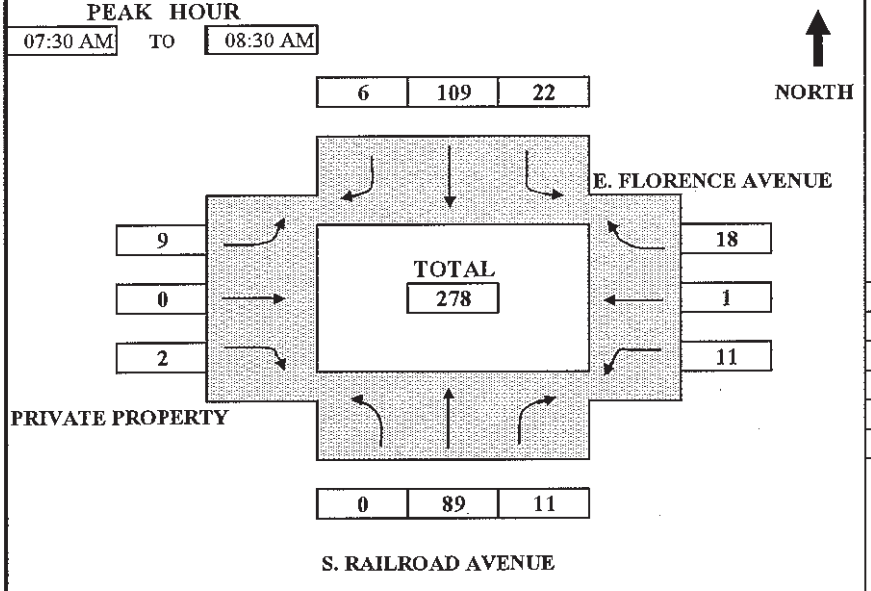
Telephone: (510)232-1271 Fax: (510)232-1272

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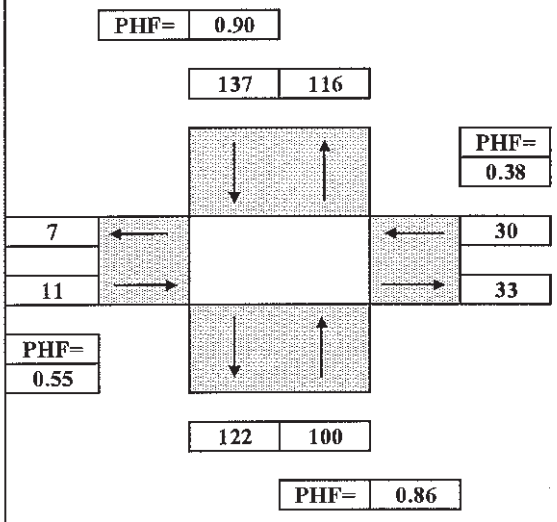
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. RAILROAD AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	E. FLORENCE AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-12AM

PEAK HOUR: 07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	0	7	3	2	13	1	1	0	0	1	0	3	*31*
7:15 AM	---	7:30 AM	0	17	4	3	32	3	2	0	0	3	0	5	*69*
7:30 AM	---	7:45 AM	0	42	8	8	62	6	4	0	1	8	1	19	*159*
7:45 AM	---	8:00 AM	0	66	12	14	92	6	5	0	1	11	1	20	*228*
8:00 AM	---	8:15 AM	0	86	15	21	115	8	9	0	2	13	1	20	*290*
8:15 AM	---	8:30 AM	0	106	15	25	141	9	11	0	2	14	1	23	*347*
8:30 AM	---	8:45 AM	1	122	16	26	163	11	13	0	3	15	1	24	*395*
8:45 AM	---	9:00 AM	3	139	16	27	186	12	15	0	3	16	1	25	*443*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	0	7	3	2	13	1	1	0	0	1	0	3	*31*
7:15 AM	---	7:30 AM	0	10	1	1	19	2	1	0	0	2	0	2	*38*
7:30 AM	---	7:45 AM	0	25	4	5	30	3	2	0	1	5	1	14	*90*
7:45 AM	---	8:00 AM	0	24	4	6	30	0	1	0	0	3	0	1	*69*
8:00 AM	---	8:15 AM	0	20	3	7	23	2	4	0	1	2	0	0	*62*
8:15 AM	---	8:30 AM	0	20	0	4	26	1	2	0	0	1	0	3	*57*
8:30 AM	---	8:45 AM	1	16	1	1	22	2	2	0	1	1	0	1	*48*
8:45 AM	---	9:00 AM	2	17	0	1	23	1	2	0	0	1	0	1	*48*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	0	66	12	14	92	6	5	0	1	11	1	20	*228*
7:15 AM	---	8:15 AM	0	79	12	19	102	7	8	0	2	12	1	17	*259*
7:30 AM	---	8:30 AM	0	89	11	22	109	6	9	0	2	11	1	18	*278*
7:45 AM	---	8:45 AM	1	80	8	18	101	5	9	0	2	7	0	5	*236*
8:00 AM	---	9:00 AM	3	73	4	13	94	6	10	0	2	5	0	5	*215*

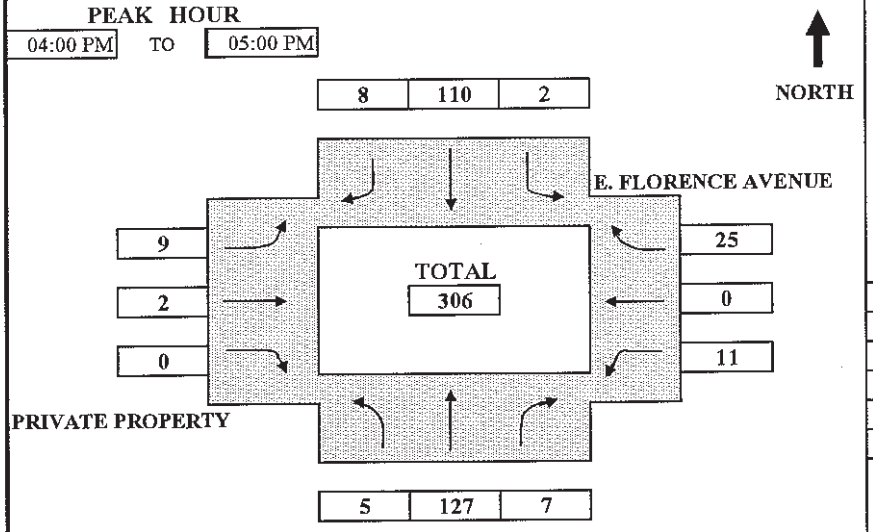
Telephone: (510)232-1271 Fax: (510)232-1272

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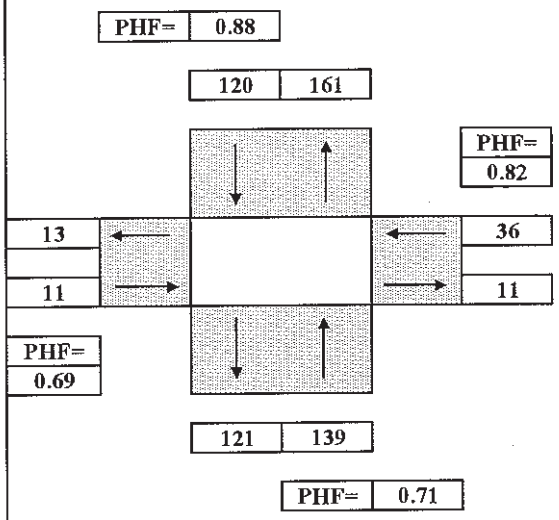
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. RAILROAD AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	E. FLORENCE AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-12PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	1	35	4	1	22	4	1	0	0	3	0	6	*77*
4:15 PM	---	4:30 PM	1	59	4	1	55	5	3	0	0	4	0	11	*143*
4:30 PM	---	4:45 PM	3	104	6	1	85	6	7	0	0	10	0	15	*237*
4:45 PM	---	5:00 PM	5	127	7	2	110	8	9	2	0	11	0	25	*306*
5:00 PM	---	5:15 PM	6	152	9	6	136	8	9	2	1	17	0	26	*372*
5:15 PM	---	5:30 PM	7	171	17	9	158	9	11	2	1	23	0	31	*439*
5:30 PM	---	5:45 PM	7	190	17	11	174	9	11	3	1	23	0	33	*479*
5:45 PM	---	6:00 PM	7	204	18	13	186	11	11	3	1	23	0	34	*511*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	1	35	4	1	22	4	1	0	0	3	0	6	*77*
4:15 PM	---	4:30 PM	0	24	0	0	33	1	2	0	0	1	0	5	*66*
4:30 PM	---	4:45 PM	2	45	2	0	30	1	4	0	0	6	0	4	*94*
4:45 PM	---	5:00 PM	2	23	1	1	25	2	2	2	0	1	0	10	*69*
5:00 PM	---	5:15 PM	1	25	2	4	26	0	0	0	1	6	0	1	*66*
5:15 PM	---	5:30 PM	1	19	8	3	22	1	2	0	0	6	0	5	*67*
5:30 PM	---	5:45 PM	0	19	0	2	16	0	0	1	0	0	0	2	*40*
5:45 PM	---	6:00 PM	0	14	1	2	12	2	0	0	0	0	0	1	*32*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	5	127	7	2	110	8	9	2	0	11	0	25	*306*
4:15 PM	---	5:15 PM	5	117	5	5	114	4	8	2	1	14	0	20	*295*
4:30 PM	---	5:30 PM	6	112	13	8	103	4	8	2	1	19	0	20	*296*
4:45 PM	---	5:45 PM	4	86	11	10	89	3	4	3	1	13	0	18	*242*
5:00 PM	---	6:00 PM	2	77	11	11	76	3	2	1	1	12	0	9	*205*

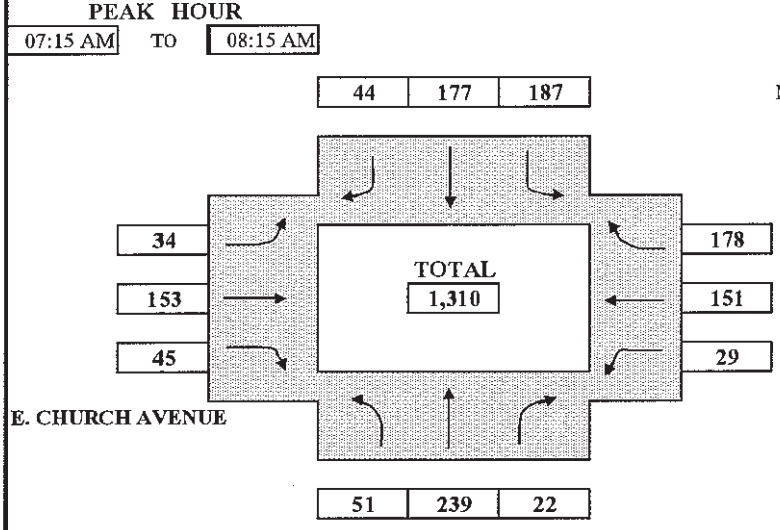
Telephone: (510)232-1271 Fax: (510)232-1272

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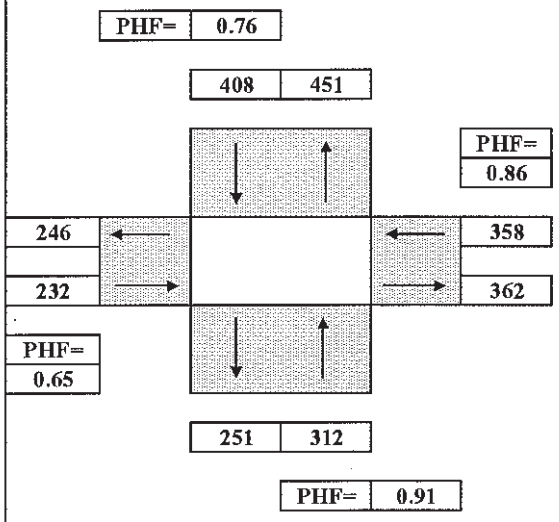
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	GOLDEN STATE BOULEVARD	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	E. CHURCH AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-13AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA														
7:00 AM ---	7:15 AM	9	29	4	39	35	3	6	27	5	1	15	18	*191*
7:15 AM ---	7:30 AM	25	74	7	68	77	9	7	54	17	9	46	50	*443*
7:30 AM ---	7:45 AM	38	142	12	117	124	19	25	112	30	16	93	99	*827*
7:45 AM ---	8:00 AM	44	212	15	191	172	32	31	154	41	21	139	152	*1,204*
8:00 AM ---	8:15 AM	60	268	26	226	212	47	40	180	50	30	166	196	*1,501*
8:15 AM ---	8:30 AM	74	308	30	240	241	59	48	206	70	40	188	216	*1,720*
8:30 AM ---	8:45 AM	80	356	35	261	254	66	54	225	78	47	225	237	*1,918*
8:45 AM ---	9:00 AM	92	391	41	284	276	71	64	261	88	60	261	259	*2,148*
TOTAL BY PERIOD														
7:00 AM ---	7:15 AM	9	29	4	39	35	3	6	27	5	1	15	18	*191*
7:15 AM ---	7:30 AM	16	45	3	29	42	6	1	27	12	8	31	32	*252*
7:30 AM ---	7:45 AM	13	68	5	49	47	10	18	58	13	7	47	49	*384*
7:45 AM ---	8:00 AM	6	70	3	74	48	13	6	42	11	5	46	53	*377*
8:00 AM ---	8:15 AM	16	56	11	35	40	15	9	26	9	9	27	44	*297*
8:15 AM ---	8:30 AM	14	40	4	14	29	12	8	26	20	10	22	20	*219*
8:30 AM ---	8:45 AM	6	48	5	21	13	7	6	19	8	7	37	21	*198*
8:45 AM ---	9:00 AM	12	35	6	23	22	5	10	36	10	13	36	22	*230*
HOURLY TOTALS														
7:00 AM ---	8:00 AM	44	212	15	191	172	32	31	154	41	21	139	152	*1,204*
7:15 AM ---	8:15 AM	51	239	22	187	177	44	34	153	45	29	151	178	*1,310*
7:30 AM ---	8:30 AM	49	234	23	172	164	50	41	152	53	31	142	166	*1,277*
7:45 AM ---	8:45 AM	42	214	23	144	130	47	29	113	48	31	132	138	*1,091*
8:00 AM ---	9:00 AM	48	179	26	93	104	39	33	107	47	39	122	107	*944*

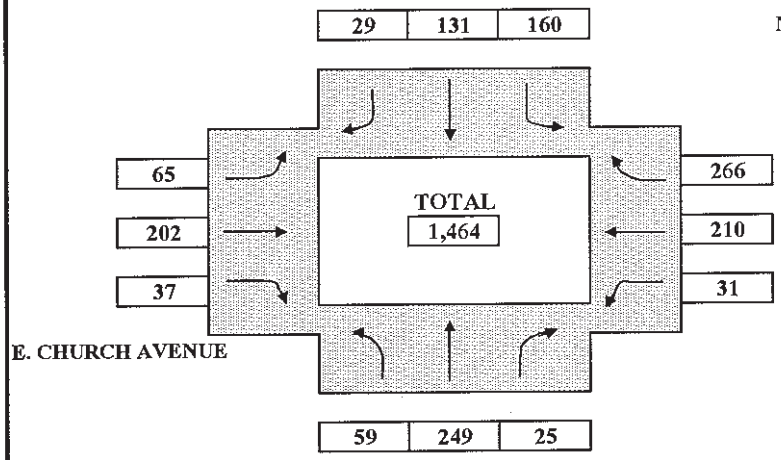
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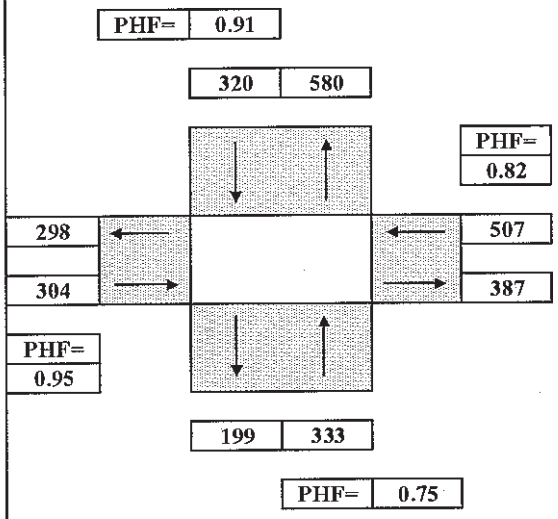
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	GOLDEN STATE BOULEVARD	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	E. CHURCH AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-13PM

PEAK HOUR
04:30 PM TO 05:30 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	16	72	6	54	39	4	20	65	17	4	31	39	*367*
4:15 PM	---	4:30 PM	26	131	14	101	64	6	43	118	28	9	73	85	*698*
4:30 PM	---	4:45 PM	43	211	28	148	91	12	52	170	37	14	131	148	*1,085*
4:45 PM	---	5:00 PM	57	256	33	178	129	19	75	219	45	21	176	201	*1,409*
5:00 PM	---	5:15 PM	72	335	36	223	160	31	95	271	52	28	232	293	*1,828*
5:15 PM	---	5:30 PM	85	380	39	261	195	35	108	320	65	40	283	351	*2,162*
5:30 PM	---	5:45 PM	98	437	42	306	212	40	120	364	79	48	323	387	*2,456*
5:45 PM	---	6:00 PM	110	464	42	347	230	47	135	397	87	55	360	424	*2,698*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	16	72	6	54	39	4	20	65	17	4	31	39	*367*
4:15 PM	---	4:30 PM	10	59	8	47	25	2	23	53	11	5	42	46	*331*
4:30 PM	---	4:45 PM	17	80	14	47	27	6	9	52	9	5	58	63	*387*
4:45 PM	---	5:00 PM	14	45	5	30	38	7	23	49	8	7	45	53	*324*
5:00 PM	---	5:15 PM	15	79	3	45	31	12	20	52	7	7	56	92	*419*
5:15 PM	---	5:30 PM	13	45	3	38	35	4	13	49	13	12	51	58	*334*
5:30 PM	---	5:45 PM	13	57	3	45	17	5	12	44	14	8	40	36	*294*
5:45 PM	---	6:00 PM	12	27	0	41	18	7	15	33	8	7	37	37	*242*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	57	256	33	178	129	19	75	219	45	21	176	201	*1,409*
4:15 PM	---	5:15 PM	56	263	30	169	121	27	75	206	35	24	201	254	*1,461*
4:30 PM	---	5:30 PM	59	249	25	160	131	29	65	202	37	31	210	266	*1,464*
4:45 PM	---	5:45 PM	55	226	14	158	121	28	68	194	42	34	192	239	*1,371*
5:00 PM	---	6:00 PM	53	208	9	169	101	28	60	178	42	34	184	223	*1,289*

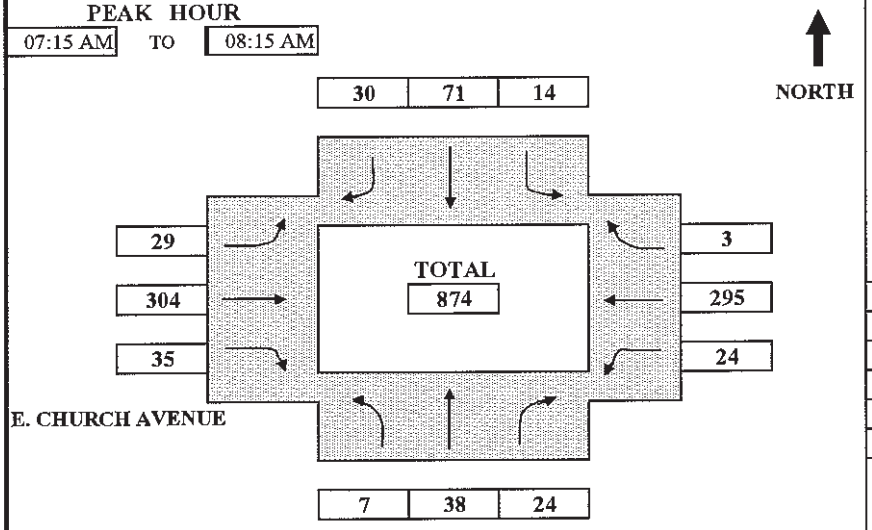
Telephone: (510)232-1271 Fax: (510)232-1272

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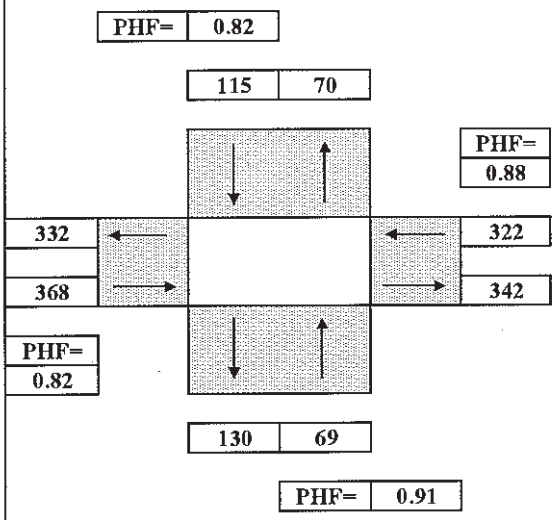
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. RAILROAD AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	E. CHURCH AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-14AM

PEAK HOUR: 07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	3	4	3	0	4	1	4	55	5	3	41	2	*125*
7:15 AM	---	7:30 AM	4	9	10	4	14	6	5	115	13	13	111	3	*307*
7:30 AM	---	7:45 AM	6	20	16	9	35	15	13	212	20	16	191	4	*557*
7:45 AM	---	8:00 AM	9	31	21	11	55	21	21	295	36	23	275	4	*802*
8:00 AM	---	8:15 AM	10	42	27	14	75	31	33	359	40	27	336	5	*999*
8:15 AM	---	8:30 AM	11	52	31	17	89	36	37	399	45	38	394	6	*1,155*
8:30 AM	---	8:45 AM	13	61	39	20	100	41	39	455	47	44	447	9	*1,315*
8:45 AM	---	9:00 AM	17	68	48	25	119	46	43	502	52	53	505	11	*1,489*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	3	4	3	0	4	1	4	55	5	3	41	2	*125*
7:15 AM	---	7:30 AM	1	5	7	4	10	5	1	60	8	10	70	1	*182*
7:30 AM	---	7:45 AM	2	11	6	5	21	9	8	97	7	3	80	1	*250*
7:45 AM	---	8:00 AM	3	11	5	2	20	6	8	83	16	7	84	0	*245*
8:00 AM	---	8:15 AM	1	11	6	3	20	10	12	64	4	4	61	1	*197*
8:15 AM	---	8:30 AM	1	10	4	3	14	5	4	40	5	11	58	1	*156*
8:30 AM	---	8:45 AM	2	9	8	3	11	5	2	56	2	6	53	3	*160*
8:45 AM	---	9:00 AM	4	7	9	5	19	5	4	47	5	9	58	2	*174*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	9	31	21	11	55	21	21	295	36	23	275	4	*802*
7:15 AM	---	8:15 AM	7	38	24	14	71	30	29	304	35	24	295	3	*874*
7:30 AM	---	8:30 AM	7	43	21	13	75	30	32	284	32	25	283	3	*848*
7:45 AM	---	8:45 AM	7	41	23	11	65	26	26	243	27	28	256	5	*758*
8:00 AM	---	9:00 AM	8	37	27	14	64	25	22	207	16	30	230	7	*687*

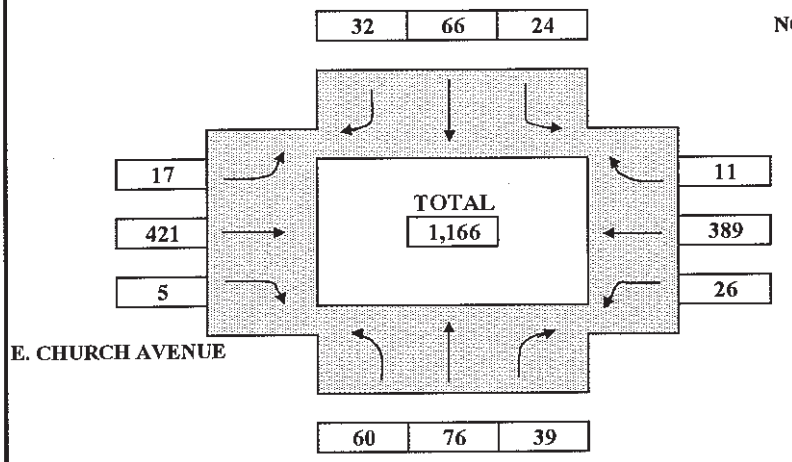
Telephone: (510)232-1271 Fax: (510)232-1272

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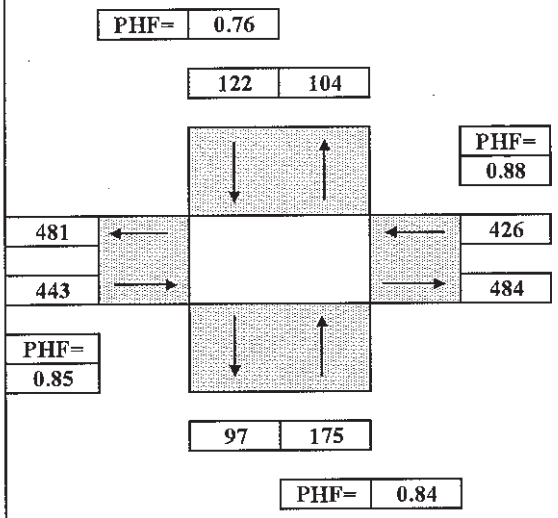
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. RAILROAD AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	E. CHURCH AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-14PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	8	25	9	5	22	4	9	103	10	13	63	6	*277*
4:15 PM	---	4:30 PM	17	42	20	9	40	11	14	228	11	23	135	8	*558*
4:30 PM	---	4:45 PM	32	68	31	17	59	24	20	328	13	30	232	13	*867*
4:45 PM	---	5:00 PM	43	81	42	23	74	30	24	415	13	35	336	16	*1,132*
5:00 PM	---	5:15 PM	68	101	48	29	88	36	26	524	15	39	452	17	*1,443*
5:15 PM	---	5:30 PM	75	115	58	30	101	43	32	592	20	49	535	18	*1,668*
5:30 PM	---	5:45 PM	83	127	59	36	110	51	35	689	21	50	615	18	*1,894*
5:45 PM	---	6:00 PM	86	136	62	38	116	53	39	753	22	52	696	19	*2,072*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	8	25	9	5	22	4	9	103	10	13	63	6	*277*
4:15 PM	---	4:30 PM	9	17	11	4	18	7	5	125	1	10	72	2	*281*
4:30 PM	---	4:45 PM	15	26	11	8	19	13	6	100	2	7	97	5	*309*
4:45 PM	---	5:00 PM	11	13	11	6	15	6	4	87	0	5	104	3	*265*
5:00 PM	---	5:15 PM	25	20	6	6	14	6	2	109	2	4	116	1	*311*
5:15 PM	---	5:30 PM	7	14	10	1	13	7	6	68	5	10	83	1	*225*
5:30 PM	---	5:45 PM	8	12	1	6	9	8	3	97	1	1	80	0	*226*
5:45 PM	---	6:00 PM	3	9	3	2	6	2	4	64	1	2	81	1	*178*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	43	81	42	23	74	30	24	415	13	35	336	16	*1,132*
4:15 PM	---	5:15 PM	60	76	39	24	66	32	17	421	5	26	389	11	*1,166*
4:30 PM	---	5:30 PM	58	73	38	21	61	32	18	364	9	26	400	10	*1,110*
4:45 PM	---	5:45 PM	51	59	28	19	51	27	15	361	8	20	383	5	*1,027*
5:00 PM	---	6:00 PM	43	55	20	15	42	23	15	338	9	17	360	3	*940*

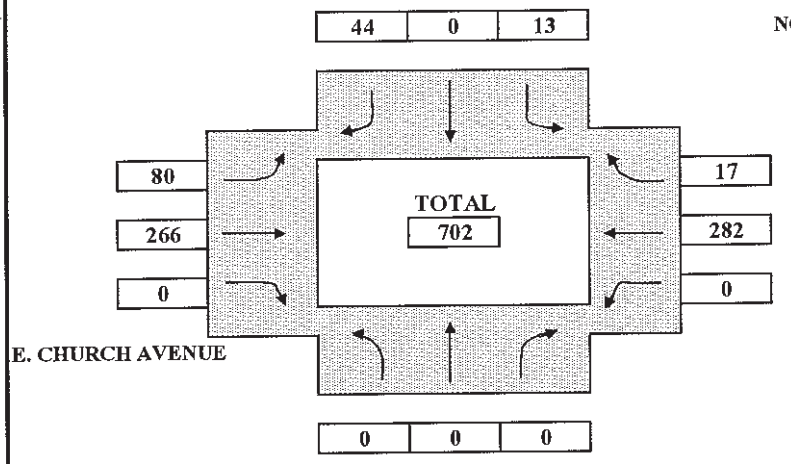
Telephone: (510)232-1271 Fax: (510)232-1272

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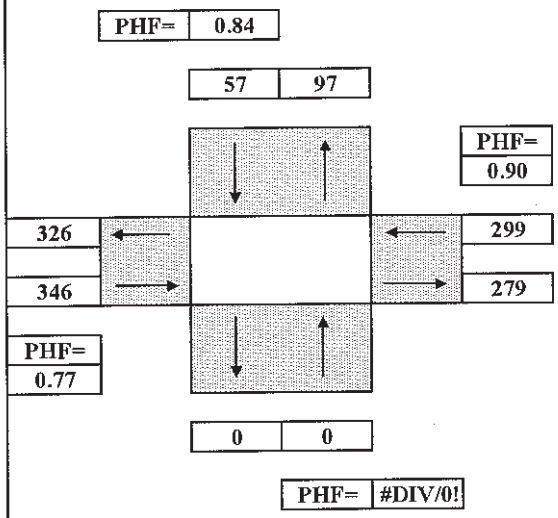
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. EAST AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	E. CHURCH AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-15AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA														
7:00 AM ---	7:15 AM				3		13	19	39			27	1	*102*
7:15 AM ---	7:30 AM				5		22	34	95			99	5	*260*
7:30 AM ---	7:45 AM				8		35	54	187			175	12	*471*
7:45 AM ---	8:00 AM				11		49	80	251			252	16	*659*
8:00 AM ---	8:15 AM				16		57	99	305			309	18	*804*
8:15 AM ---	8:30 AM				16		80	110	336			356	19	*917*
8:30 AM ---	8:45 AM				21		90	122	391			404	22	*1,050*
8:45 AM ---	9:00 AM				26		104	139	434			459	28	*1,190*
TOTAL BY PERIOD														
7:00 AM ---	7:15 AM	0	0	0	3	0	13	19	39	0	0	27	1	*102*
7:15 AM ---	7:30 AM	0	0	0	2	0	9	15	56	0	0	72	4	*158*
7:30 AM ---	7:45 AM	0	0	0	3	0	13	20	92	0	0	76	7	*211*
7:45 AM ---	8:00 AM	0	0	0	3	0	14	26	64	0	0	77	4	*188*
8:00 AM ---	8:15 AM	0	0	0	5	0	8	19	54	0	0	57	2	*145*
8:15 AM ---	8:30 AM	0	0	0	0	0	23	11	31	0	0	47	1	*113*
8:30 AM ---	8:45 AM	0	0	0	5	0	10	12	55	0	0	48	3	*133*
8:45 AM ---	9:00 AM	0	0	0	5	0	14	17	43	0	0	55	6	*140*
HOURLY TOTALS														
7:00 AM ---	8:00 AM	0	0	0	11	0	49	80	251	0	0	252	16	*659*
7:15 AM ---	8:15 AM	0	0	0	13	0	44	80	266	0	0	282	17	*702*
7:30 AM ---	8:30 AM	0	0	0	11	0	58	76	241	0	0	257	14	*657*
7:45 AM ---	8:45 AM	0	0	0	13	0	55	68	204	0	0	229	10	*579*
8:00 AM ---	9:00 AM	0	0	0	15	0	55	59	183	0	0	207	12	*531*

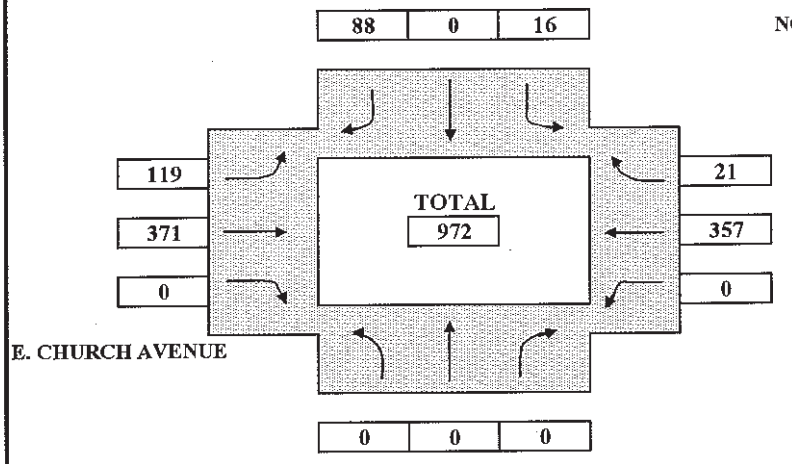
Telephone: (510)232-1271 Fax: (510)232-1272

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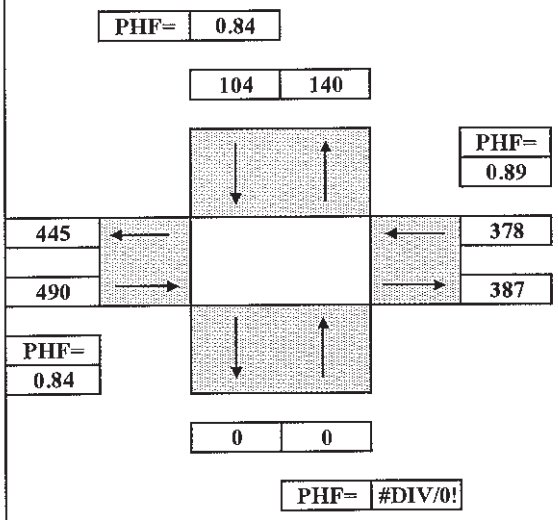
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. EAST AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	E. CHURCH AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-15PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM				4		16	33	78			60	5	*196*
4:15 PM	---	4:30 PM				5		33	64	192			126	10	*430*
4:30 PM	---	4:45 PM				11		58	98	277			217	16	*677*
4:45 PM	---	5:00 PM				16		78	125	352			316	21	*908*
5:00 PM	---	5:15 PM				20		104	152	449			417	26	*1,168*
5:15 PM	---	5:30 PM				34		119	165	510			489	35	*1,352*
5:30 PM	---	5:45 PM				37		129	182	601			560	43	*1,552*
5:45 PM	---	6:00 PM				45		137	192	657			635	47	*1,713*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	0	0	0	4	0	16	33	78	0	0	60	5	*196*
4:15 PM	---	4:30 PM	0	0	0	1	0	17	31	114	0	0	66	5	*234*
4:30 PM	---	4:45 PM	0	0	0	6	0	25	34	85	0	0	91	6	*247*
4:45 PM	---	5:00 PM	0	0	0	5	0	20	27	75	0	0	99	5	*231*
5:00 PM	---	5:15 PM	0	0	0	4	0	26	27	97	0	0	101	5	*260*
5:15 PM	---	5:30 PM	0	0	0	14	0	15	13	61	0	0	72	9	*184*
5:30 PM	---	5:45 PM	0	0	0	3	0	10	17	91	0	0	71	8	*200*
5:45 PM	---	6:00 PM	0	0	0	8	0	8	10	56	0	0	75	4	*161*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	0	0	0	16	0	78	125	352	0	0	316	21	*908*
4:15 PM	---	5:15 PM	0	0	0	16	0	88	119	371	0	0	357	21	*972*
4:30 PM	---	5:30 PM	0	0	0	29	0	86	101	318	0	0	363	25	*922*
4:45 PM	---	5:45 PM	0	0	0	26	0	71	84	324	0	0	343	27	*875*
5:00 PM	---	6:00 PM	0	0	0	29	0	59	67	305	0	0	319	26	*805*

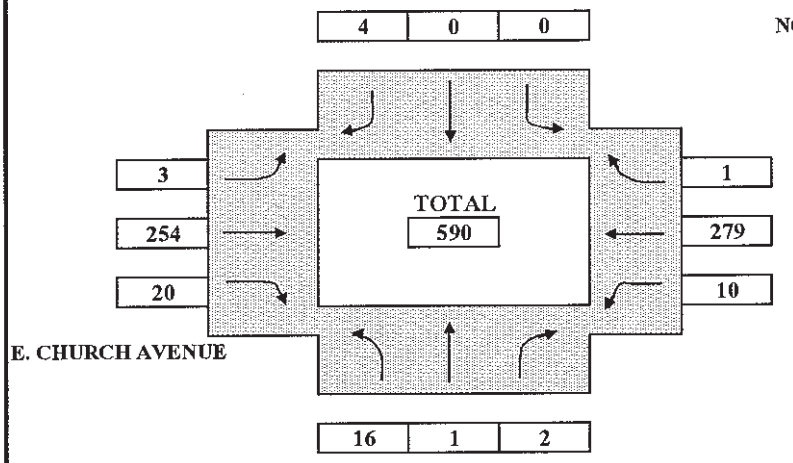
Telephone: (510)232-1271 Fax: (510)232-1272

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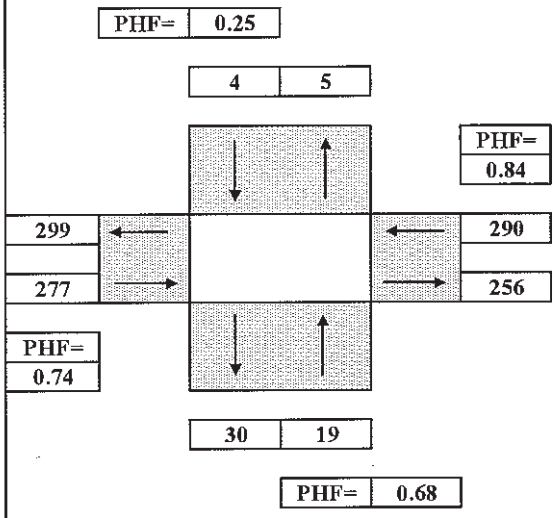
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. SUNLAND AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	E. CHURCH AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-16AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	2	0	1	0	0	0	0	39	5	6	29	2	*84*
7:15 AM	---	7:30 AM	5	0	1	0	0	0	1	96	5	6	102	2	*218*
7:30 AM	---	7:45 AM	11	0	1	0	0	0	1	181	13	7	179	2	*395*
7:45 AM	---	8:00 AM	14	0	1	0	0	0	2	239	21	10	261	3	*551*
8:00 AM	---	8:15 AM	18	1	3	0	0	4	3	293	25	16	308	3	*674*
8:15 AM	---	8:30 AM	21	1	5	0	1	4	3	325	26	20	353	3	*762*
8:30 AM	---	8:45 AM	23	1	6	0	1	6	4	378	31	20	401	3	*874*
8:45 AM	---	9:00 AM	27	1	6	0	1	6	4	419	38	23	457	4	*986*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	2	0	1	0	0	0	0	39	5	6	29	2	*84*
7:15 AM	---	7:30 AM	3	0	0	0	0	0	1	57	0	0	73	0	*134*
7:30 AM	---	7:45 AM	6	0	0	0	0	0	0	85	8	1	77	0	*177*
7:45 AM	---	8:00 AM	3	0	0	0	0	0	1	58	8	3	82	1	*156*
8:00 AM	---	8:15 AM	4	1	2	0	0	4	1	54	4	6	47	0	*123*
8:15 AM	---	8:30 AM	3	0	2	0	1	0	0	32	1	4	45	0	*88*
8:30 AM	---	8:45 AM	2	0	1	0	0	2	1	53	5	0	48	0	*112*
8:45 AM	---	9:00 AM	4	0	0	0	0	0	0	41	7	3	56	1	*112*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	14	0	1	0	0	0	2	239	21	10	261	3	*551*
7:15 AM	---	8:15 AM	16	1	2	0	0	4	3	254	20	10	279	1	*590*
7:30 AM	---	8:30 AM	16	1	4	0	1	4	2	229	21	14	251	1	*544*
7:45 AM	---	8:45 AM	12	1	5	0	1	6	3	197	18	13	222	1	*479*
8:00 AM	---	9:00 AM	13	1	5	0	1	6	2	180	17	13	196	1	*435*

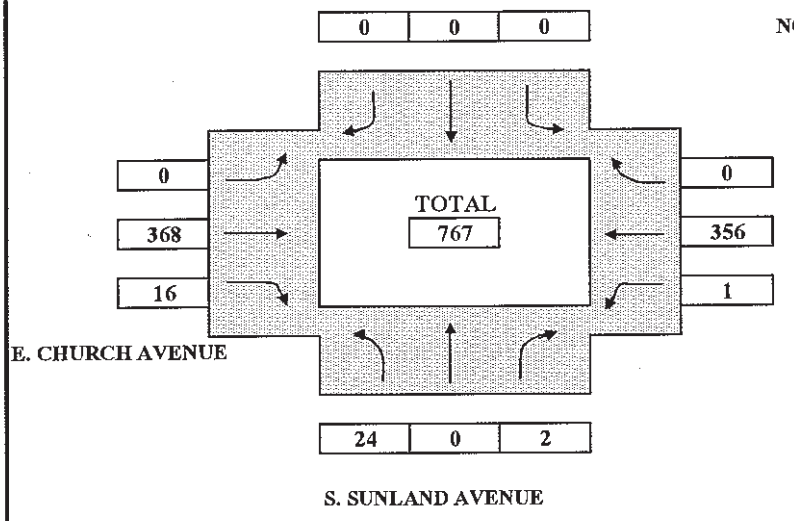
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B.A.Y.M.E.T.R.I.C.S.

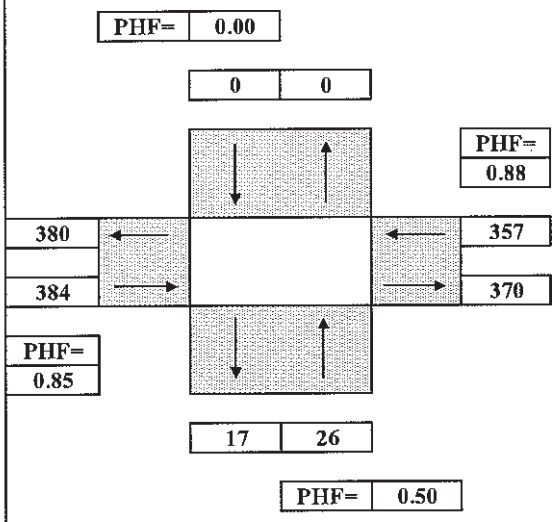
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. SUNLAND AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	E. CHURCH AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-16PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	4	0	2	0	0	0	1	79	1	1	61	3	*152*
4:15 PM	---	4:30 PM	10	0	2	0	0	0	1	188	5	1	126	3	*336*
4:30 PM	---	4:45 PM	13	0	3	0	0	0	1	275	9	2	223	3	*529*
4:45 PM	---	5:00 PM	15	0	4	0	0	0	1	349	15	2	324	3	*713*
5:00 PM	---	5:15 PM	28	0	4	0	0	0	1	447	17	2	417	3	*919*
5:15 PM	---	5:30 PM	38	0	4	0	0	0	2	520	20	2	488	3	*1,077*
5:30 PM	---	5:45 PM	44	0	4	0	0	0	2	611	21	2	561	3	*1,248*
5:45 PM	---	6:00 PM	50	0	4	0	0	1	2	673	24	2	636	3	*1,395*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	4	0	2	0	0	0	1	79	1	1	61	3	*152*
4:15 PM	---	4:30 PM	6	0	0	0	0	0	0	109	4	0	65	0	*184*
4:30 PM	---	4:45 PM	3	0	1	0	0	0	0	87	4	1	97	0	*193*
4:45 PM	---	5:00 PM	2	0	1	0	0	0	0	74	6	0	101	0	*184*
5:00 PM	---	5:15 PM	13	0	0	0	0	0	0	98	2	0	93	0	*206*
5:15 PM	---	5:30 PM	10	0	0	0	0	0	1	73	3	0	71	0	*158*
5:30 PM	---	5:45 PM	6	0	0	0	0	0	0	91	1	0	73	0	*171*
5:45 PM	---	6:00 PM	6	0	0	0	0	1	0	62	3	0	75	0	*147*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	15	0	4	0	0	0	1	349	15	2	324	3	*713*
4:15 PM	---	5:15 PM	24	0	2	0	0	0	0	368	16	1	356	0	*767*
4:30 PM	---	5:30 PM	28	0	2	0	0	0	1	332	15	1	362	0	*741*
4:45 PM	---	5:45 PM	31	0	1	0	0	0	1	336	12	0	338	0	*719*
5:00 PM	---	6:00 PM	35	0	0	0	0	1	1	324	9	0	312	0	*682*

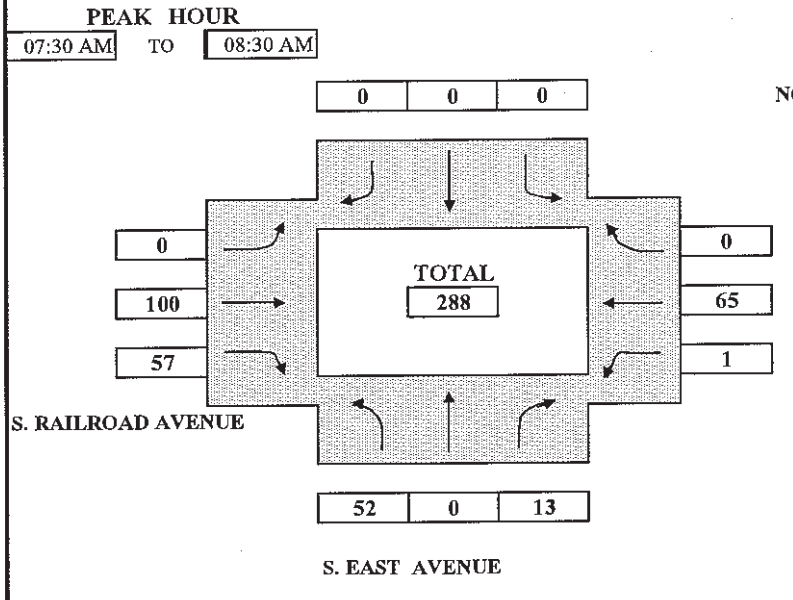
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

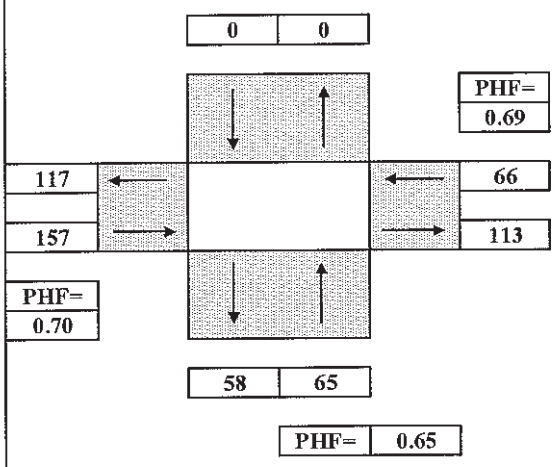
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. EAST AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	S. RAILROAD AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-17AM

PEAK HOUR
07:30 AM TO 08:30 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
SURVEY DATA															
7:00 AM	---	7:15 AM	10		0				14	6		0	10		*40*
7:15 AM	---	7:30 AM	18		1				35	19		0	22		*95*
7:30 AM	---	7:45 AM	34		4				61	28		0	39		*166*
7:45 AM	---	8:00 AM	54		9				103	42		1	52		*261*
8:00 AM	---	8:15 AM	59		14				117	56		1	76		*323*
8:15 AM	---	8:30 AM	70		14				135	76		1	87		*383*
8:30 AM	---	8:45 AM	88		16				148	86		1	95		*434*
8:45 AM	---	9:00 AM	97		18				173	92		2	107		*489*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	10	0	0	0	0	0	0	14	6	0	10	0	*40*
7:15 AM	---	7:30 AM	8	0	1	0	0	0	0	21	13	0	12	0	*55*
7:30 AM	---	7:45 AM	16	0	3	0	0	0	0	26	9	0	17	0	*71*
7:45 AM	---	8:00 AM	20	0	5	0	0	0	0	42	14	1	13	0	*95*
8:00 AM	---	8:15 AM	5	0	5	0	0	0	0	14	14	0	24	0	*62*
8:15 AM	---	8:30 AM	11	0	0	0	0	0	0	18	20	0	11	0	*60*
8:30 AM	---	8:45 AM	18	0	2	0	0	0	0	13	10	0	8	0	*51*
8:45 AM	---	9:00 AM	9	0	2	0	0	0	0	25	6	1	12	0	*55*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	54	0	9	0	0	0	0	103	42	1	52	0	*261*
7:15 AM	---	8:15 AM	49	0	14	0	0	0	0	103	50	1	66	0	*283*
7:30 AM	---	8:30 AM	52	0	13	0	0	0	0	100	57	1	65	0	*288*
7:45 AM	---	8:45 AM	54	0	12	0	0	0	0	87	58	1	56	0	*268*
8:00 AM	---	9:00 AM	43	0	9	0	0	0	0	70	50	1	55	0	*228*

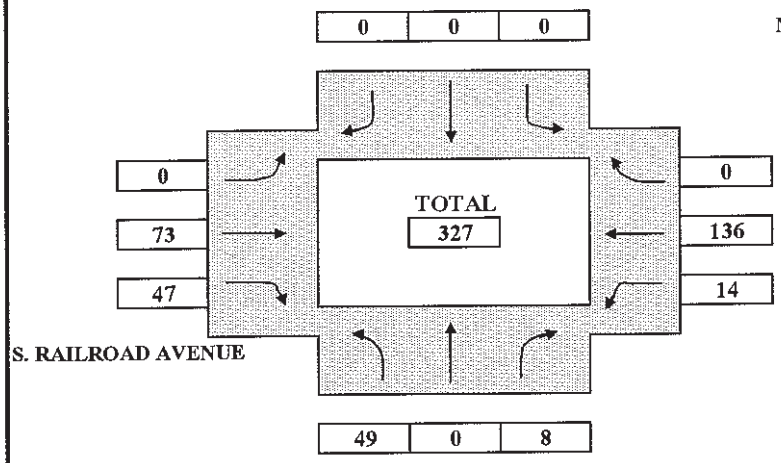
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

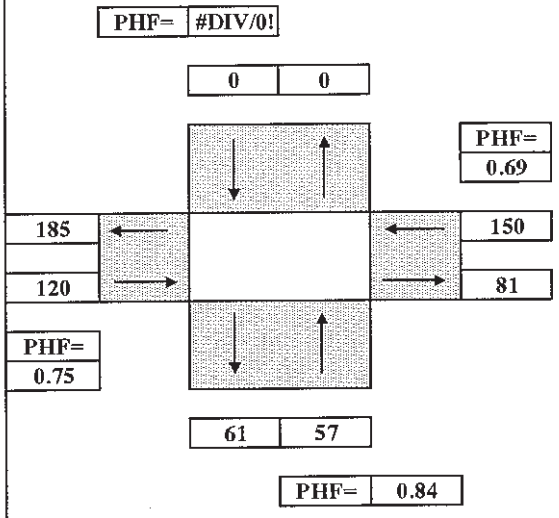
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. EAST AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	S. RAILROAD AVENUE	JURISDICTION:	FRESNO	FILE:	3103016-17PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
SURVEY DATA															
4:00 PM	---	4:15 PM	14		3				24	16		8	42		*107*
4:15 PM	---	4:30 PM	27		5				41	29		9	63		*174*
4:30 PM	---	4:45 PM	35		8				58	41		13	113		*268*
4:45 PM	---	5:00 PM	49		8				73	47		14	136		*327*
5:00 PM	---	5:15 PM	60		8				88	64		22	176		*418*
5:15 PM	---	5:30 PM	68		8				104	76		25	194		*475*
5:30 PM	---	5:45 PM	78		8				114	79		27	207		*513*
5:45 PM	---	6:00 PM	84		10				121	80		27	218		*540*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	14	0	3	0	0	0	0	24	16	8	42	0	*107*
4:15 PM	---	4:30 PM	13	0	2	0	0	0	0	17	13	1	21	0	*67*
4:30 PM	---	4:45 PM	8	0	3	0	0	0	0	17	12	4	50	0	*94*
4:45 PM	---	5:00 PM	14	0	0	0	0	0	0	15	6	1	23	0	*59*
5:00 PM	---	5:15 PM	11	0	0	0	0	0	0	15	17	8	40	0	*91*
5:15 PM	---	5:30 PM	8	0	0	0	0	0	0	16	12	3	18	0	*57*
5:30 PM	---	5:45 PM	10	0	0	0	0	0	0	10	3	2	13	0	*38*
5:45 PM	---	6:00 PM	6	0	2	0	0	0	0	7	1	0	11	0	*27*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	49	0	8	0	0	0	0	73	47	14	136	0	*327*
4:15 PM	---	5:15 PM	46	0	5	0	0	0	0	64	48	14	134	0	*311*
4:30 PM	---	5:30 PM	41	0	3	0	0	0	0	63	47	16	131	0	*301*
4:45 PM	---	5:45 PM	43	0	0	0	0	0	0	56	38	14	94	0	*245*
5:00 PM	---	6:00 PM	35	0	2	0	0	0	0	48	33	13	82	0	*213*

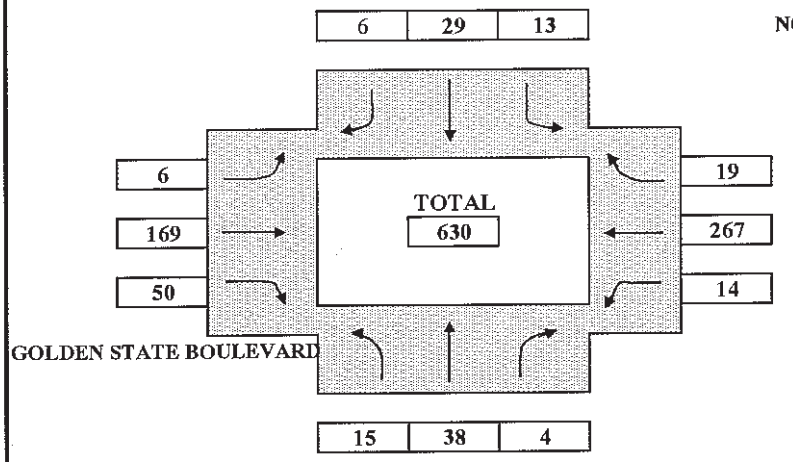
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

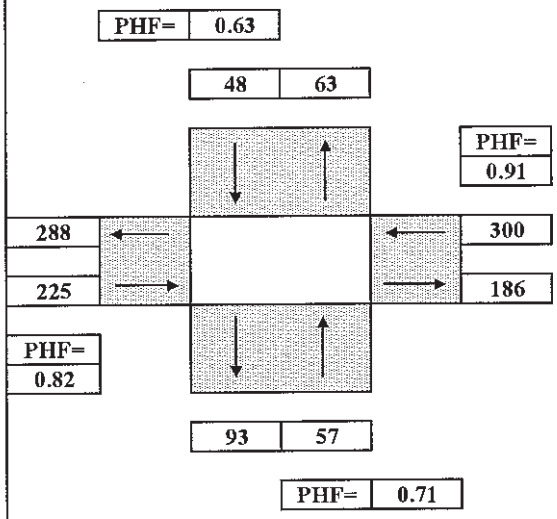
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. EAST AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	GOLDEN STATE BOULEVARD	JURISDICTION:	FRESNO	FILE:	3103016-18AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	3	5	0	0	5	1	1	61	5	2	64	1	*148*
7:15 AM	---	7:30 AM	5	11	0	1	16	4	1	121	14	6	121	3	*303*
7:30 AM	---	7:45 AM	13	23	0	3	19	6	4	165	29	7	196	9	*474*
7:45 AM	---	8:00 AM	14	37	3	6	23	6	4	197	45	10	268	16	*629*
8:00 AM	---	8:15 AM	18	43	4	13	34	7	7	230	55	16	331	20	*778*
8:15 AM	---	8:30 AM	22	50	4	24	43	7	7	271	65	21	383	23	*920*
8:30 AM	---	8:45 AM	27	56	6	29	52	7	8	293	69	22	439	33	*1,041*
8:45 AM	---	9:00 AM	30	62	8	30	58	8	9	324	77	23	476	39	*1,144*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	3	5	0	0	5	1	1	61	5	2	64	1	*148*
7:15 AM	---	7:30 AM	2	6	0	1	11	3	0	60	9	4	57	2	*155*
7:30 AM	---	7:45 AM	8	12	0	2	3	2	3	44	15	1	75	6	*171*
7:45 AM	---	8:00 AM	1	14	3	3	4	0	0	32	16	3	72	7	*155*
8:00 AM	---	8:15 AM	4	6	1	7	11	1	3	33	10	6	63	4	*149*
8:15 AM	---	8:30 AM	4	7	0	11	9	0	0	41	10	5	52	3	*142*
8:30 AM	---	8:45 AM	5	6	2	5	9	0	1	22	4	1	56	10	*121*
8:45 AM	---	9:00 AM	3	6	2	1	6	1	1	31	8	1	37	6	*103*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	14	37	3	6	23	6	4	197	45	10	268	16	*629*
7:15 AM	---	8:15 AM	15	38	4	13	29	6	6	169	50	14	267	19	*630*
7:30 AM	---	8:30 AM	17	39	4	23	27	3	6	150	51	15	262	20	*617*
7:45 AM	---	8:45 AM	14	33	6	26	33	1	4	128	40	15	243	24	*567*
8:00 AM	---	9:00 AM	16	25	5	24	35	2	5	127	32	13	208	23	*515*

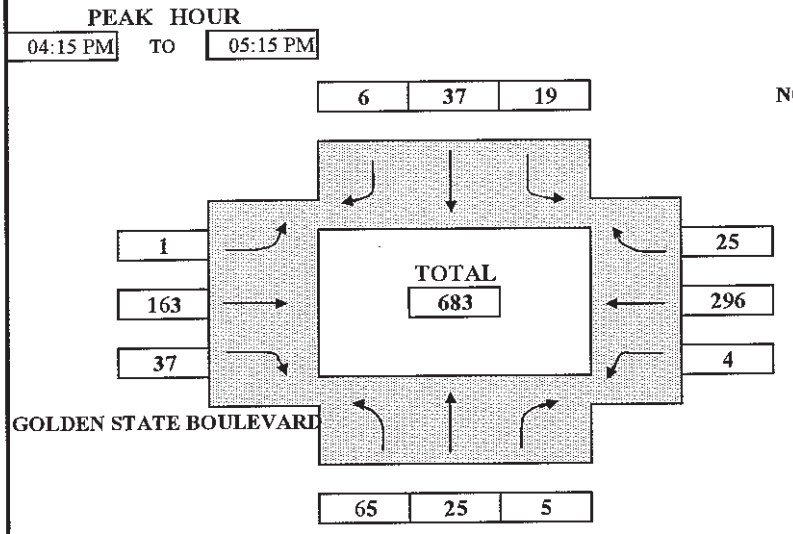
Telephone: (510)232-1271 Fax: (510)232-1272

B.A.Y.M.E.T.R.I.C.S.

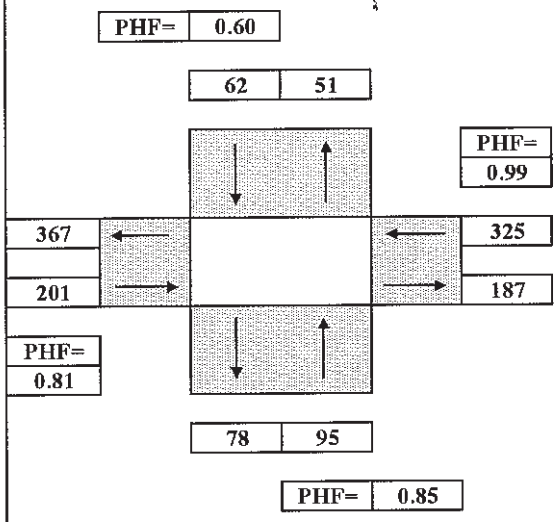
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. EAST AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	GOLDEN STATE BOULEVARD	JURISDICTION:	FRESNO	FILE:	3103016-18PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	9	12	2	9	10	2	2	51	8	2	82	3	*192*
4:15 PM	---	4:30 PM	30	18	2	16	21	4	2	81	12	6	150	11	*353*
4:30 PM	---	4:45 PM	46	27	5	19	30	4	2	125	22	6	230	13	*529*
4:45 PM	---	5:00 PM	56	34	5	21	32	4	3	167	30	6	302	22	*682*
5:00 PM	---	5:15 PM	74	37	7	28	47	8	3	214	45	6	378	28	*875*
5:15 PM	---	5:30 PM	84	41	9	34	59	8	3	254	51	8	415	32	*998*
5:30 PM	---	5:45 PM	91	45	10	35	62	9	5	285	60	10	454	35	*1,101*
5:45 PM	---	6:00 PM	96	49	10	35	65	10	5	311	65	12	488	39	*1,185*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	9	12	2	9	10	2	2	51	8	2	82	3	*192*
4:15 PM	---	4:30 PM	21	6	0	7	11	2	0	30	4	4	68	8	*161*
4:30 PM	---	4:45 PM	16	9	3	3	9	0	0	44	10	0	80	2	*176*
4:45 PM	---	5:00 PM	10	7	0	2	2	0	1	42	8	0	72	9	*153*
5:00 PM	---	5:15 PM	18	3	2	7	15	4	0	47	15	0	76	6	*193*
5:15 PM	---	5:30 PM	10	4	2	6	12	0	0	40	6	2	37	4	*123*
5:30 PM	---	5:45 PM	7	4	1	1	3	1	2	31	9	2	39	3	*103*
5:45 PM	---	6:00 PM	5	4	0	0	3	1	0	26	5	2	34	4	*84*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	56	34	5	21	32	4	3	167	30	6	302	22	*682*
4:15 PM	---	5:15 PM	65	25	5	19	37	6	1	163	37	4	296	25	*683*
4:30 PM	---	5:30 PM	54	23	7	18	38	4	1	173	39	2	265	21	*645*
4:45 PM	---	5:45 PM	45	18	5	16	32	5	3	160	38	4	224	22	*572*
5:00 PM	---	6:00 PM	40	15	5	14	33	6	2	144	35	6	186	17	*503*

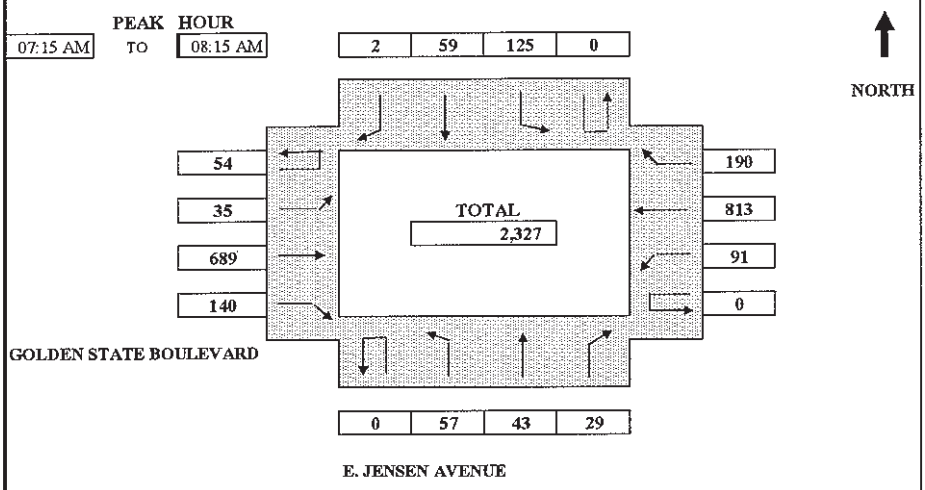
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B.A.Y.M.E.T.R.I.C.S.

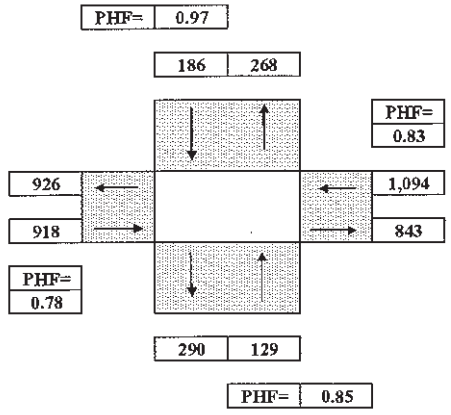
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	E. JENSEN AVENUE	SURVEY TIME:	7:00 AM TO 9:00 AM		
E-W APPROACH:	GOLDEN STATE BOULEVARD	CITY:	FRESNO	FILE:	3103046-19AM

PEAK HOUR
07:15 AM TO 08:15 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND U-Turn	Left	Thru	Right	SOUTHBOUND U-Turn	Left	Thru	Right	EASTBOUND U-Turn	Left	Thru	Right	WESTBOUND U-Turn	Left	Thru	Right	TOTAL
SURVEY DATA																			
7:00 AM	---	7:15 AM		14	3	4		28	9	2	16	11	144	42		25	184	40	*522*
7:15 AM	---	7:30 AM		25	11	11		56	28	3	27	18	276	61		36	337	76	*965*
7:30 AM	---	7:45 AM		38	29	18		87	44	4	42	28	501	107		65	575	137	*1,675*
7:45 AM	---	8:00 AM		53	40	23		117	56	4	60	40	680	150		80	788	187	*2,278*
8:00 AM	---	8:15 AM		71	46	33		153	68	4	70	46	833	182		116	997	230	*2,849*
8:15 AM	---	8:30 AM		91	59	41		170	83	4	80	52	921	204		139	1,137	261	*3,242*
8:30 AM	---	8:45 AM		109	72	47		183	98	4	99	65	1,056	248		155	1,317	288	*3,741*
8:45 AM	---	9:00 AM		131	83	57		197	122	6	114	75	1,164	280		173	1,465	309	*4,176*
TOTAL BY PERIOD																			
7:00 AM	---	7:15 AM	0	14	3	4	0	28	9	2	16	11	144	42	0	25	184	40	*522*
7:15 AM	---	7:30 AM	0	11	8	7	0	28	19	1	11	7	132	19	0	11	153	36	*443*
7:30 AM	---	7:45 AM	0	13	18	7	0	31	16	1	15	10	225	46	0	29	238	61	*710*
7:45 AM	---	8:00 AM	0	15	11	5	0	30	12	0	18	12	179	43	0	15	213	50	*603*
8:00 AM	---	8:15 AM	0	18	6	10	0	36	12	0	10	6	153	32	0	36	209	43	*571*
8:15 AM	---	8:30 AM	0	20	13	8	0	17	15	0	10	6	88	22	0	23	140	31	*393*
8:30 AM	---	8:45 AM	0	18	13	6	0	13	15	0	19	13	135	44	0	16	180	27	*499*
8:45 AM	---	9:00 AM	0	22	11	10	0	14	24	2	15	10	108	32	0	18	148	21	*435*
HOURLY TOTALS																			
7:00 AM	---	8:00 AM	0	53	40	23	0	117	56	4	60	40	680	150	0	80	788	187	*2,278*
7:15 AM	---	8:15 AM	0	57	43	29	0	125	59	2	54	35	689	140	0	91	813	190	*2,327*
7:30 AM	---	8:30 AM	0	66	48	30	0	114	55	1	53	34	645	143	0	103	800	185	*2,277*
7:45 AM	---	8:45 AM	0	71	43	29	0	96	54	0	57	37	555	141	0	90	742	151	*2,066*
8:00 AM	---	9:00 AM	0	78	43	34	0	80	66	2	54	35	484	130	0	93	677	122	*1,898*

Telephone: (510)232-1271 Fax: (510)232-1272

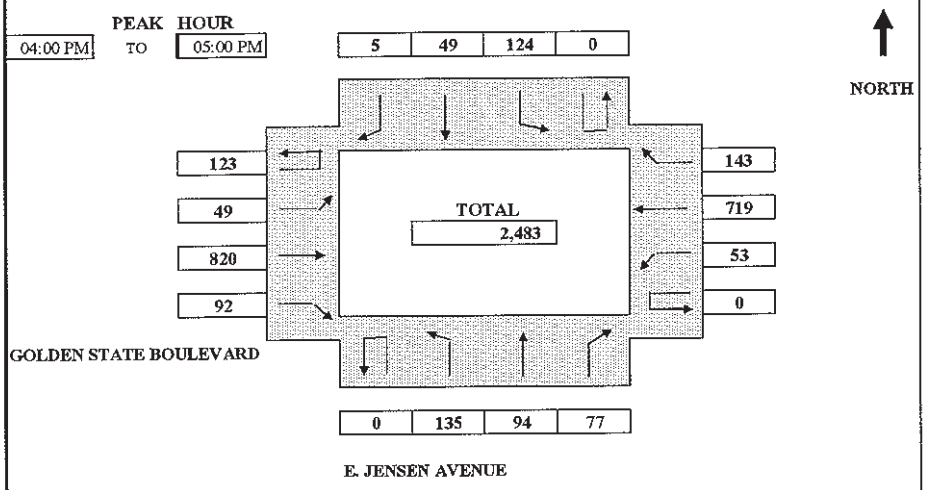
B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

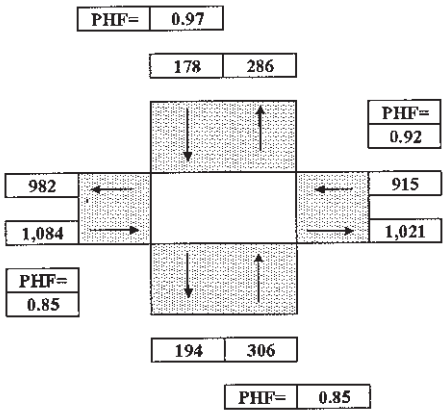
PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	E. JENSEN AVENUE	SURVEY TIME:	4:00 PM TO 6:00 PM		
E-W APPROACH:	GOLDEN STATE BOULEVARD	CITY:	FRESNO	FILE:	3103016-19PM

PEAK HOUR

04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
From		To	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	TOTAL
SURVEY DATA																			
4:00 PM	---	4:15 PM		34	20	23		32	13	1	23	12	214	26		10	162	34	*604*
4:15 PM	---	4:30 PM		71	42	37		62	25	2	54	25	431	47		28	350	72	*1,246*
4:30 PM	---	4:45 PM		106	74	60		96	35	4	93	37	667	78		37	547	116	*1,950*
4:45 PM	---	5:00 PM		135	94	77		124	49	5	123	49	820	92		53	719	143	*2,483*
5:00 PM	---	5:15 PM		161	106	103		159	55	5	146	61	1,018	104		66	873	185	*3,042*
5:15 PM	---	5:30 PM		179	122	122		202	68	5	167	67	1,238	113		72	1,036	206	*3,597*
5:30 PM	---	5:45 PM		194	130	132		224	77	5	188	78	1,409	123		80	1,169	231	*4,040*
5:45 PM	---	6:00 PM		212	142	140		242	90	6	214	86	1,580	142		91	1,331	261	*4,537*
TOTAL BY PERIOD																			
4:00 PM	---	4:15 PM	0	34	20	23	0	32	13	1	23	12	214	26	0	10	162	34	*604*
4:15 PM	---	4:30 PM	0	37	22	14	0	30	12	1	31	13	217	21	0	18	188	38	*642*
4:30 PM	---	4:45 PM	0	35	32	23	0	34	10	2	39	12	236	31	0	9	197	44	*704*
4:45 PM	---	5:00 PM	0	29	20	17	0	28	14	1	30	12	153	14	0	16	172	27	*533*
5:00 PM	---	5:15 PM	0	26	12	26	0	35	6	0	23	12	198	12	0	13	154	42	*559*
5:15 PM	---	5:30 PM	0	18	16	19	0	43	13	0	21	6	220	9	0	6	163	21	*555*
5:30 PM	---	5:45 PM	0	15	8	10	0	22	9	0	21	11	171	10	0	8	133	25	*443*
5:45 PM	---	6:00 PM	0	18	12	8	0	18	13	1	26	8	171	19	0	11	162	30	*497*
HOURLY TOTALS																			
4:00 PM	---	5:00 PM	0	135	94	77	0	124	49	5	123	49	820	92	0	53	719	143	*2,483*
4:15 PM	---	5:15 PM	0	127	86	80	0	127	42	4	123	49	804	78	0	56	711	151	*2,438*
4:30 PM	---	5:30 PM	0	108	80	85	0	140	43	3	113	42	807	66	0	44	686	134	*2,351*
4:45 PM	---	5:45 PM	0	88	56	72	0	128	42	1	95	41	742	45	0	43	622	115	*2,090*
5:00 PM	---	6:00 PM	0	77	48	63	0	118	41	1	91	37	760	50	0	38	612	118	*2,054*

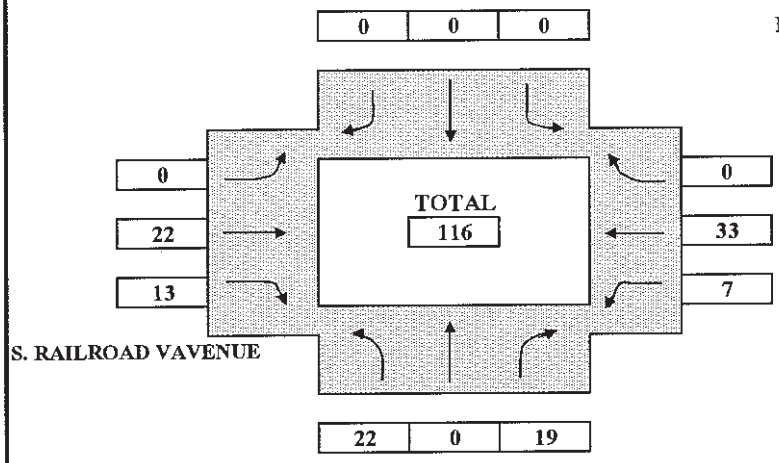
Telephone: (510)232-1271 Fax: (510)232-1272

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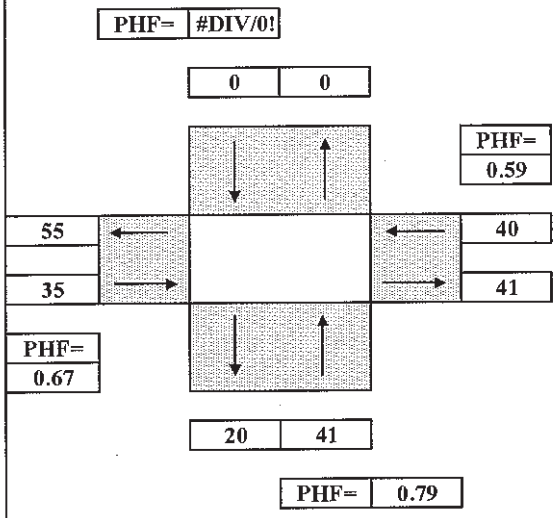
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. ORANGE AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	S. RAILROAD VAVENUE	JURISDICTION:	FRESNO	FILE:	3103016-20AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
7:00 AM	---	7:15 AM	4		3				7	1		2	9		*26*
7:15 AM	---	7:30 AM	5		6				9	4		2	14		*40*
7:30 AM	---	7:45 AM	8		11				16	5		3	20		*63*
7:45 AM	---	8:00 AM	13		19				18	7		5	35		*97*
8:00 AM	---	8:15 AM	23		22				27	11		5	42		*130*
8:15 AM	---	8:30 AM	26		27				33	16		6	46		*154*
8:30 AM	---	8:45 AM	30		30				38	18		10	53		*179*
8:45 AM	---	9:00 AM	32		31				49	20		13	58		*203*
TOTAL BY PERIOD															
7:00 AM	---	7:15 AM	4	0	3	0	0	0	0	7	1	2	9	0	*26*
7:15 AM	---	7:30 AM	1	0	3	0	0	0	0	2	3	0	5	0	*14*
7:30 AM	---	7:45 AM	3	0	5	0	0	0	0	7	1	1	6	0	*23*
7:45 AM	---	8:00 AM	5	0	8	0	0	0	0	2	2	2	15	0	*34*
8:00 AM	---	8:15 AM	10	0	3	0	0	0	0	9	4	0	7	0	*33*
8:15 AM	---	8:30 AM	3	0	5	0	0	0	0	6	5	1	4	0	*24*
8:30 AM	---	8:45 AM	4	0	3	0	0	0	0	5	2	4	7	0	*25*
8:45 AM	---	9:00 AM	2	0	1	0	0	0	0	11	2	3	5	0	*24*
HOURLY TOTALS															
7:00 AM	---	8:00 AM	13	0	19	0	0	0	0	18	7	5	35	0	*97*
7:15 AM	---	8:15 AM	19	0	19	0	0	0	0	20	10	3	33	0	*104*
7:30 AM	---	8:30 AM	21	0	21	0	0	0	0	24	12	4	32	0	*114*
7:45 AM	---	8:45 AM	22	0	19	0	0	0	0	22	13	7	33	0	*116*
8:00 AM	---	9:00 AM	19	0	12	0	0	0	0	31	13	8	23	0	*106*

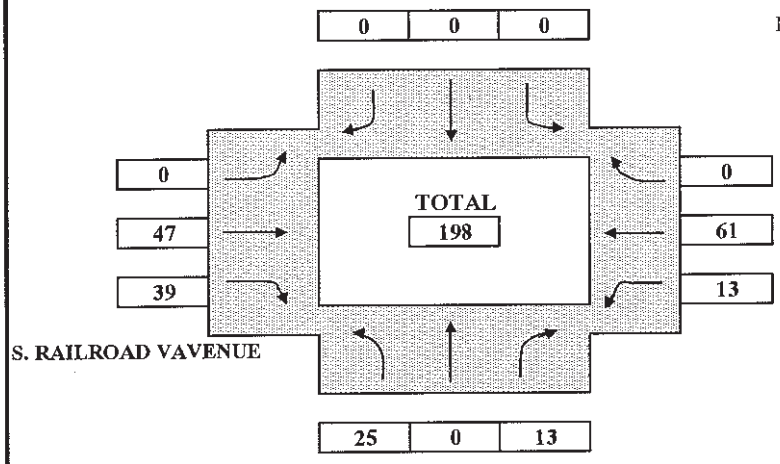
Telephone: (510)232-1271 Fax: (510)232-1272

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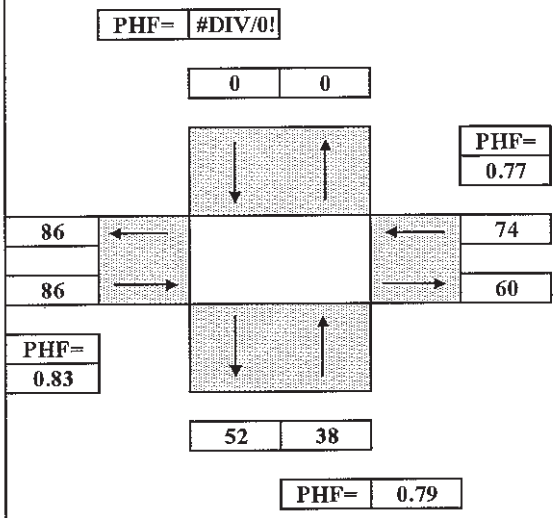
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. ORANGE AVENUE	SURVEY TIME:	4:00 PM	TO	6;00 PM
E-W APPROACH:	S. RAILROAD VAVENUE	JURISDICTION:	FRESNO	FILE:	3103016-20PM

PEAK HOUR
04:15 PM TO 05:15 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
From		To	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	5		1				14	15		2	12		*49*
4:15 PM	---	4:30 PM	13		5				29	26		4	23		*100*
4:30 PM	---	4:45 PM	20		9				39	38		6	41		*153*
4:45 PM	---	5:00 PM	27		11				46	43		14	50		*191*
5:00 PM	---	5:15 PM	30		14				61	54		15	73		*247*
5:15 PM	---	5:30 PM	35		14				87	58		16	87		*297*
5:30 PM	---	5:45 PM	38		14				96	61		17	98		*324*
5:45 PM	---	6:00 PM	42		16				100	62		17	100		*337*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	5	0	1	0	0	0	0	14	15	2	12	0	*49*
4:15 PM	---	4:30 PM	8	0	4	0	0	0	0	15	11	2	11	0	*51*
4:30 PM	---	4:45 PM	7	0	4	0	0	0	0	10	12	2	18	0	*53*
4:45 PM	---	5:00 PM	7	0	2	0	0	0	0	7	5	8	9	0	*38*
5:00 PM	---	5:15 PM	3	0	3	0	0	0	0	15	11	1	23	0	*56*
5:15 PM	---	5:30 PM	5	0	0	0	0	0	0	26	4	1	14	0	*50*
5:30 PM	---	5:45 PM	3	0	0	0	0	0	0	9	3	1	11	0	*27*
5:45 PM	---	6:00 PM	4	0	2	0	0	0	0	4	1	0	2	0	*13*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	27	0	11	0	0	0	0	46	43	14	50	0	*191*
4:15 PM	---	5:15 PM	25	0	13	0	0	0	0	47	39	13	61	0	*198*
4:30 PM	---	5:30 PM	22	0	9	0	0	0	0	58	32	12	64	0	*197*
4:45 PM	---	5:45 PM	18	0	5	0	0	0	0	57	23	11	57	0	*171*
5:00 PM	---	6:00 PM	15	0	5	0	0	0	0	54	19	3	50	0	*146*

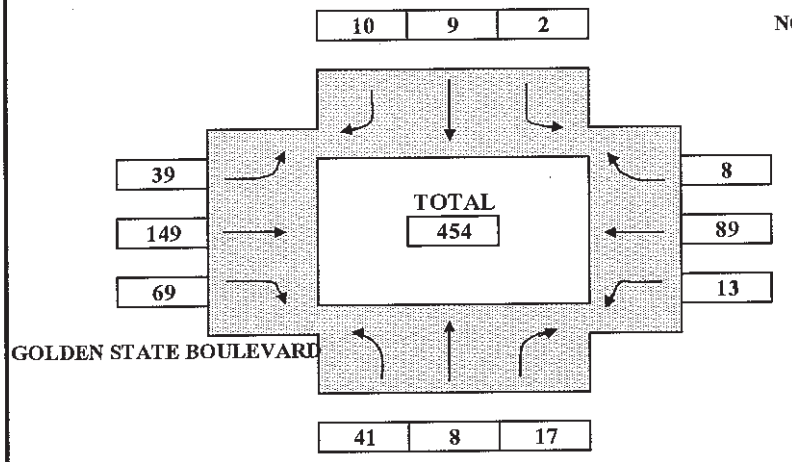
Telephone: (510)232-1271 Fax: (510)232-1272

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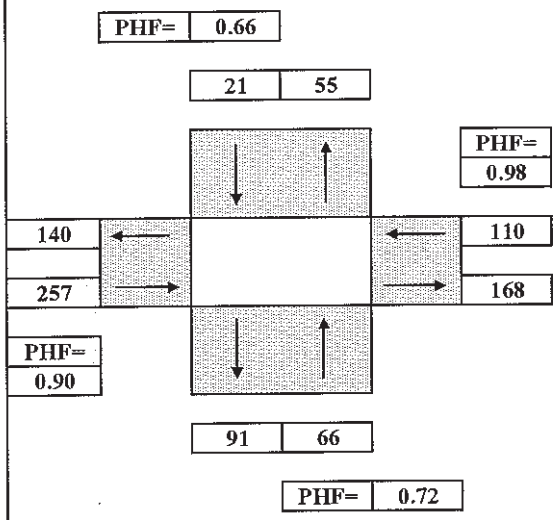
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. ORANGE AVENUE	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	GOLDEN STATE BOULEVARD	JURISDICTION:	FRESNO	FILE:	3103016-21AM

PEAK HOUR
07:45 AM TO 08:45 AM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From	To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA														
7:00 AM ---	7:15 AM	3	0	0	0	0	3	7	24	18	0	17	0	*72*
7:15 AM ---	7:30 AM	14	0	4	0	2	3	10	56	34	3	46	0	*172*
7:30 AM ---	7:45 AM	19	3	7	0	3	3	18	86	58	5	71	1	*274*
7:45 AM ---	8:00 AM	30	6	9	0	6	4	28	125	78	6	95	3	*390*
8:00 AM ---	8:15 AM	37	7	16	0	7	4	38	165	99	10	116	6	*505*
8:15 AM ---	8:30 AM	51	11	21	2	10	7	45	200	116	13	140	6	*622*
8:30 AM ---	8:45 AM	60	11	24	2	12	13	57	235	127	18	160	9	*728*
8:45 AM ---	9:00 AM	71	12	30	4	14	16	61	266	142	22	189	10	*837*
TOTAL BY PERIOD														
7:00 AM ---	7:15 AM	3	0	0	0	0	3	7	24	18	0	17	0	*72*
7:15 AM ---	7:30 AM	11	0	4	0	2	0	3	32	16	3	29	0	*100*
7:30 AM ---	7:45 AM	5	3	3	0	1	0	8	30	24	2	25	1	*102*
7:45 AM ---	8:00 AM	11	3	2	0	3	1	10	39	20	1	24	2	*116*
8:00 AM ---	8:15 AM	7	1	7	0	1	0	10	40	21	4	21	3	*115*
8:15 AM ---	8:30 AM	14	4	5	2	3	3	7	35	17	3	24	0	*117*
8:30 AM ---	8:45 AM	9	0	3	0	2	6	12	35	11	5	20	3	*106*
8:45 AM ---	9:00 AM	11	1	6	2	2	3	4	31	15	4	29	1	*109*
HOURLY TOTALS														
7:00 AM ---	8:00 AM	30	6	9	0	6	4	28	125	78	6	95	3	*390*
7:15 AM ---	8:15 AM	34	7	16	0	7	1	31	141	81	10	99	6	*433*
7:30 AM ---	8:30 AM	37	11	17	2	8	4	35	144	82	10	94	6	*450*
7:45 AM ---	8:45 AM	41	8	17	2	9	10	39	149	69	13	89	8	*454*
8:00 AM ---	9:00 AM	41	6	21	4	8	12	33	141	64	16	94	7	*447*

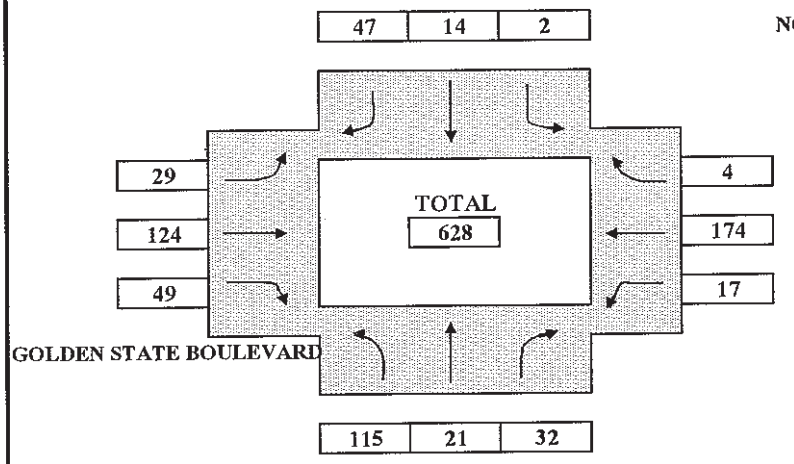
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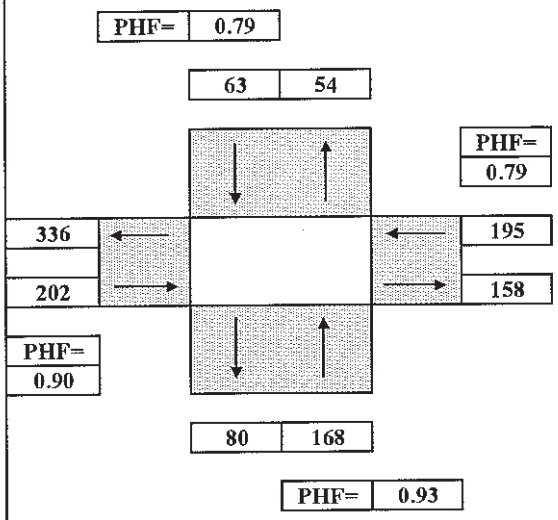
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	CALIFORNIA HIGH SPEED TRAIN	SURVEY DATE:	3/9/2011	DAY:	WEDNESDAY
N-S APPROACH:	S. ORANGE AVENUE	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	GOLDEN STATE BOULEVARD	JURISDICTION:	FRESNO	FILE:	3103016-21PM

PEAK HOUR
04:00 PM TO 05:00 PM



ARRIVAL / DEPARTURE VOLUMES



TIME PERIOD From		To	NORTHBOUND Left	Thru	Right	SOUTHBOUND Left	Thru	Right	EASTBOUND Left	Thru	Right	WESTBOUND Left	Thru	Right	TOTAL
SURVEY DATA															
4:00 PM	---	4:15 PM	32	3	6	0	5	15	9	33	14	4	43	2	*166*
4:15 PM	---	4:30 PM	59	12	15	1	7	23	19	60	27	9	75	2	*309*
4:30 PM	---	4:45 PM	83	17	25	2	8	41	24	93	38	14	131	3	*479*
4:45 PM	---	5:00 PM	115	21	32	2	14	47	29	124	49	17	174	4	*628*
5:00 PM	---	5:15 PM	143	23	35	2	16	60	32	147	57	19	212	4	*750*
5:15 PM	---	5:30 PM	151	25	38	3	17	66	33	171	61	19	250	4	*838*
5:30 PM	---	5:45 PM	163	26	40	3	18	69	36	190	67	21	271	4	*908*
5:45 PM	---	6:00 PM	173	26	42	3	19	69	39	217	73	21	294	4	*980*
TOTAL BY PERIOD															
4:00 PM	---	4:15 PM	32	3	6	0	5	15	9	33	14	4	43	2	*166*
4:15 PM	---	4:30 PM	27	9	9	1	2	8	10	27	13	5	32	0	*143*
4:30 PM	---	4:45 PM	24	5	10	1	1	18	5	33	11	5	56	1	*170*
4:45 PM	---	5:00 PM	32	4	7	0	6	6	5	31	11	3	43	1	*149*
5:00 PM	---	5:15 PM	28	2	3	0	2	13	3	23	8	2	38	0	*122*
5:15 PM	---	5:30 PM	8	2	3	1	1	6	1	24	4	0	38	0	*88*
5:30 PM	---	5:45 PM	12	1	2	0	1	3	3	19	6	2	21	0	*70*
5:45 PM	---	6:00 PM	10	0	2	0	1	0	3	27	6	0	23	0	*72*
HOURLY TOTALS															
4:00 PM	---	5:00 PM	115	21	32	2	14	47	29	124	49	17	174	4	*628*
4:15 PM	---	5:15 PM	111	20	29	2	11	45	23	114	43	15	169	2	*584*
4:30 PM	---	5:30 PM	92	13	23	2	10	43	14	111	34	10	175	2	*529*
4:45 PM	---	5:45 PM	80	9	15	1	10	28	12	97	29	7	140	1	*429*
5:00 PM	---	6:00 PM	58	5	10	1	5	22	10	93	24	4	120	0	*352*

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APPENDIX B:
TRAFFIC COUNT DATA (MAY 2015) &
2009 TO 2015 COUNT COMPARISON

	AM Peak Hour				PM Peak Hour			
	2009	2015	Delta	%	2009	2015	Delta	%
SR 99 - Jensen to SR 41								
NB	4,247	4,193	-54	-1.27%	4,713	5,112	399	8.47%
SB	4,214	3,844	-370	-8.78%	4,526	4,206	-320	-7.07%
SR 41 - At SR 180 Junction								
NB	3,308	3,111	-197	-5.96%	4,155	4,113	-42	-1.01%
SB	3,800	3,844	44	1.16%	2,928	2,864	-64	-2.19%
SR 180 - Marks to SR 99								
EB	2,865	1,630	-1,235	-43.11%	2,098	1,434	-664	-31.65%
WB	1,486	1,209	-277	-18.64%	3,741	1,742	-1,999	-53.43%

			AM	PM
Van Ness	at	SR 41 SB Ramps	31%	-3%
Van Ness	at	SR 41 NB Ramps	29%	7%
O Street	at	SR 41 SB Ramps	13%	-10%
Tulare	at	SR 41 NB Ramps	3%	7%
Divisadero	at	SR 41 NB Ramps	-2%	0%
Divisadero	at	SR 41 SB Ramps	3%	-4%
Abby	at	SR 180 EB Ramps	-6%	-3%
Blackstone	at	SR 180 WB Ramps	4%	2%
Fulton	at	SR 180 EB Ramps	-11%	4%
Fulton	at	SR 180 WB Ramps	-12%	1%
Ventura	at	SR 99 NB Ramps	0%	5%
Ventura	at	SR 99 SB Ramps	10%	6%
Fresno	at	SR 99 NB Ramps	-17%	-10%
Fresno	at	SR 99 SB Ramps	-7%	-7%
Stanislaus	at	SR 99 SB Ramps	-2%	-14%
Stanislaus	at	SR 99 NB Ramps	-4%	-26%
Belmont	at	SR 99 SB Ramps	6%	-2%
Belmont	at	SR 99 NB Ramps	7%	0%

APPENDIX C-1:
TECHNICAL CALCULATIONS –
EXISTING CONDITIONS
INTERSECTION LOS

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	162	170	117	285	0	9	0	10	37	9	39
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.74	0.74	0.74	0.95	0.95	0.95	0.59	0.59	0.59	0.79	0.79	0.79
Hourly flow rate (vph)	0	219	230	123	300	0	15	0	17	47	11	49
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												2
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	300			449			760	880	224	673	995	150
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	300			449			760	880	224	673	995	150
tC, single (s)	4.1			4.4			7.5	6.5	7.3	7.6	6.5	7.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.5	4.0	3.5	3.5	4.0	3.4
p0 queue free %	100			88			94	100	98	84	95	94
cM capacity (veh/h)	1273			1009			245	253	726	300	217	836

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	146	303	223	200	32	108
Volume Left	0	0	123	0	15	47
Volume Right	0	230	0	0	17	49
cSH	1700	1700	1009	1700	376	525
Volume to Capacity	0.09	0.18	0.12	0.12	0.09	0.21
Queue Length 95th (ft)	0	0	10	0	7	19
Control Delay (s)	0.0	0.0	5.5	0.0	15.5	15.7
Lane LOS			A		C	C
Approach Delay (s)	0.0		2.9		15.5	15.7
Approach LOS					C	C

Intersection Summary				
Average Delay	3.4			
Intersection Capacity Utilization	39.0%	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 (veh/h)	39	170	0	0	218	47	184	0	163	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.77	0.77	0.77	0.95	0.95	0.95	0.90	0.90	0.90	0.92	0.92	0.92
Hourly flow rate (vph)	51	221	0	0	229	49	204	0	181	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									13			
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	279			221			437	601	110	556	576	139
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	279			221			437	601	110	556	576	139
tC, single (s)	4.3			4.1			7.8	6.5	7.1	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	96			100			55	100	80	100	100	100
cM capacity (veh/h)	1225			1360			459	400	891	322	413	890

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	124	147	153	126	386
Volume Left	51	0	0	0	204
Volume Right	0	0	0	49	181
cSH	1225	1700	1700	1700	865
Volume to Capacity	0.04	0.09	0.09	0.07	0.45
Queue Length 95th (ft)	3	0	0	0	58
Control Delay (s)	3.5	0.0	0.0	0.0	14.8
Lane LOS	A				B
Approach Delay (s)	1.6		0.0		14.8
Approach LOS					B

Intersection Summary				
Average Delay	6.6			
Intersection Capacity Utilization	33.6%	ICU Level of Service		A
Analysis Period (min)	15			

MOVEMENT SUMMARY

Site: AM Peak

Belmont Roundabout
Baseline Conditions
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Wesley											
3L	L	24	47.9	0.041	4.3	LOS A	0.1	4.0	0.34	0.65	25.8
8T	T	7	29.0	0.041	4.3	LOS A	0.1	4.0	0.34	0.37	28.7
8R	R	5	0.0	0.041	4.3	LOS A	0.1	4.0	0.34	0.30	27.5
Approach		37	37.3	0.041	4.3	LOS A	0.1	4.0	0.34	0.54	26.5
East: Belmont/Thorne											
1L	L	6	0.0	0.190	4.1	LOS A	0.6	15.6	0.14	0.89	28.9
6T	T	204	9.0	0.190	4.1	LOS A	0.6	15.6	0.14	0.33	32.9
6R	R	59	7.0	0.190	4.1	LOS A	0.6	15.6	0.14	0.39	33.9
Approach		269	8.4	0.190	4.1	LOS A	0.6	15.6	0.14	0.36	33.0
North: Golden State											
7L	L	126	7.9	0.174	4.2	LOS A	0.6	15.0	0.26	0.74	31.5
4T	T	25	12.0	0.174	4.2	LOS A	0.6	15.0	0.26	0.42	35.9
4R	R	76	2.3	0.174	4.2	LOS A	0.6	15.0	0.26	0.45	35.9
Approach		227	6.5	0.174	4.2	LOS A	0.6	15.0	0.26	0.61	33.0
West: Belmont											
5L	L	36	19.4	0.218	4.7	LOS A	0.7	20.3	0.23	0.80	29.9
2T	T	206	11.0	0.218	4.7	LOS A	0.7	20.3	0.23	0.37	32.4
2R	R	36	17.5	0.218	4.7	LOS A	0.7	20.3	0.23	0.33	31.6
Approach		278	12.9	0.218	4.7	LOS A	0.7	20.3	0.23	0.42	31.8
South West: Arthur											
13L	L	3	0.0	0.004	3.7	LOS A	0.0	0.6	0.56	0.58	24.4
18R	R	1	0.0	0.004	3.7	LOS A	0.0	0.6	0.56	0.33	24.0
Approach		4	0.0	0.004	3.7	LOS A	0.0	0.6	0.56	0.52	24.3
All Vehicles		815	10.7	0.218	4.3	LOS A	0.7	20.3	0.22	0.46	32.1

Level of Service (LOS) Method: Delay (HCM 2000).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
HCM Delay Model used. Geometric Delay not included.

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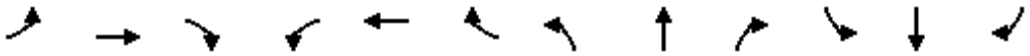
Movement	EBT	EBR	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2	SWL2
Lane Configurations										
Volume (vph)	168	139	154	36	3	52	102	0	11	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.0	4.2	4.2			4.9	4.9		4.9
Lane Util. Factor	1.00	1.00	1.00	1.00			0.95	1.00		1.00
Frt	1.00	0.85	1.00	0.85			1.00	0.85		1.00
Flt Protected	1.00	1.00	1.00	1.00			0.98	1.00		0.95
Satd. Flow (prot)	1863	1583	1863	1583			3481	1583		1770
Flt Permitted	1.00	1.00	1.00	1.00			0.98	1.00		0.75
Satd. Flow (perm)	1863	1583	1863	1583			3481	1583		1394
Peak-hour factor, PHF	0.72	0.72	0.83	0.83	0.83	0.76	0.76	0.76	0.76	0.67
Adj. Flow (vph)	233	193	186	43	4	68	134	0	14	12
RTOR Reduction (vph)	0	0	0	21	0	0	0	8	0	0
Lane Group Flow (vph)	233	193	186	26	0	0	202	6	0	12
Turn Type	NA	Free	NA	Perm		Perm	NA	Perm		D.Pm
Protected Phases	4		4				2			
Permitted Phases		Free		4		2		2		2
Actuated Green, G (s)	24.0	57.1	24.0	24.0			24.0	24.0		24.0
Effective Green, g (s)	24.0	57.1	24.0	24.0			24.0	24.0		24.0
Actuated g/C Ratio	0.42	1.00	0.42	0.42			0.42	0.42		0.42
Clearance Time (s)	4.2		4.2	4.2			4.9	4.9		4.9
Lane Grp Cap (vph)	783	1583	783	665			1463	665		585
v/s Ratio Prot	c0.13		0.10							
v/s Ratio Perm		c0.12		0.02			0.06	0.00		0.01
v/c Ratio	0.30	0.12	0.24	0.04			0.14	0.01		0.02
Uniform Delay, d1	11.0	0.0	10.7	9.8			10.2	9.6		9.7
Progression Factor	1.00	1.00	1.00	1.00			1.00	1.00		1.00
Incremental Delay, d2	1.0	0.2	0.7	0.1			0.2	0.0		0.1
Delay (s)	11.9	0.2	11.4	9.9			10.4	9.7		9.7
Level of Service	B	A	B	A			B	A		A
Approach Delay (s)	6.6		11.1				10.3			
Approach LOS	A		B				B			

Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	57.1	Sum of lost time (s)	9.1
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

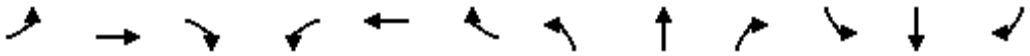
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	127	34	16	144	59	13	85	15	144	273	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.9		4.1		4.1	4.1	4.1
Lane Util. Factor		0.95			0.95	1.00		0.95		1.00	0.95	1.00
Frt		0.97			1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected		0.99			0.99	1.00		0.99		0.95	1.00	1.00
Satd. Flow (prot)		3150			3304	1568		3278		1736	3539	1583
Flt Permitted		0.88			0.92	1.00		0.91		0.67	1.00	1.00
Satd. Flow (perm)		2789			3043	1568		3008		1224	3539	1583
Peak-hour factor, PHF	0.78	0.78	0.78	0.82	0.82	0.82	0.88	0.88	0.88	0.79	0.79	0.79
Adj. Flow (vph)	47	163	44	20	176	72	15	97	17	182	346	58
RTOR Reduction (vph)	0	26	0	0	0	42	0	10	0	0	0	34
Lane Group Flow (vph)	0	228	0	0	196	30	0	119	0	182	346	24
Heavy Vehicles (%)	3%	7%	32%	6%	9%	3%	8%	5%	20%	4%	2%	2%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4		4	2			2		2
Actuated Green, G (s)		23.0			23.0	23.0		23.0		23.0	23.0	23.0
Effective Green, g (s)		23.0			23.0	23.0		23.0		23.0	23.0	23.0
Actuated g/C Ratio		0.42			0.42	0.42		0.42		0.42	0.42	0.42
Clearance Time (s)		4.9			4.9	4.9		4.1		4.1	4.1	4.1
Lane Grp Cap (vph)		1166			1272	655		1257		511	1479	661
v/s Ratio Prot											0.10	
v/s Ratio Perm		c0.08			0.06	0.02		0.04		c0.15		0.02
v/c Ratio		0.20			0.15	0.05		0.09		0.36	0.23	0.04
Uniform Delay, d1		10.1			10.0	9.5		9.7		10.9	10.3	9.5
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2		0.4			0.3	0.1		0.1		1.9	0.4	0.1
Delay (s)		10.5			10.2	9.6		9.8		12.9	10.7	9.6
Level of Service		B			B	A		A		B	B	A
Approach Delay (s)		10.5			10.1			9.8			11.3	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



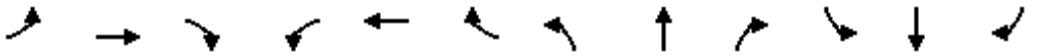
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	194	190	37	259	0	0	0	0	22	552	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2	5.2		5.2						5.6	
Lane Util. Factor		0.95	1.00		0.95						0.95	
Frt		1.00	0.85		1.00						0.99	
Flt Protected		1.00	1.00		0.99						1.00	
Satd. Flow (prot)		3252	1568		3397						3511	
Flt Permitted		1.00	1.00		0.89						1.00	
Satd. Flow (perm)		3252	1568		3032						3511	
Peak-hour factor, PHF	0.75	0.75	0.75	0.86	0.86	0.86	0.25	0.92	0.92	0.70	0.70	0.70
Adj. Flow (vph)	0	259	253	43	301	0	0	0	0	31	789	29
RTOR Reduction (vph)	0	0	62	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	259	191	0	344	0	0	0	0	0	846	0
Heavy Vehicles (%)	0%	11%	3%	3%	6%	0%	0%	0%	0%	5%	2%	2%
Turn Type		NA	Perm	Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases			4	8						6		
Actuated Green, G (s)		28.0	28.0		28.0						31.2	
Effective Green, g (s)		28.0	28.0		28.0						31.2	
Actuated g/C Ratio		0.40	0.40		0.40						0.45	
Clearance Time (s)		5.2	5.2		5.2						5.6	
Lane Grp Cap (vph)		1300	627		1212						1564	
v/s Ratio Prot		0.08										
v/s Ratio Perm			c0.12		0.11						0.24	
v/c Ratio		0.20	0.30		0.28						0.54	
Uniform Delay, d1		13.7	14.3		14.2						14.2	
Progression Factor		1.00	1.00		0.77						1.00	
Incremental Delay, d2		0.3	1.2		0.6						1.3	
Delay (s)		14.0	15.6		11.6						15.5	
Level of Service		B	B		B						B	
Approach Delay (s)		14.8			11.6			0.0			15.5	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



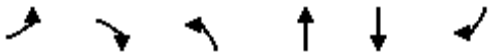
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	195	0	0	188	29	133	459	39	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6			5.6	5.6	5.6	5.6	5.6			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1752	3374			3374	1509	1770	1845	1538			
Flt Permitted	0.61	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1129	3374			3374	1509	1770	1845	1538			
Peak-hour factor, PHF	0.83	0.83	0.83	0.84	0.84	0.84	0.82	0.82	0.82	0.92	0.92	0.92
Adj. Flow (vph)	35	235	0	0	224	35	162	560	48	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	25	0	0	18	0	0	0
Lane Group Flow (vph)	35	235	0	0	224	10	162	560	30	0	0	0
Heavy Vehicles (%)	3%	7%	0%	0%	7%	7%	2%	3%	5%	0%	0%	0%
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	20.0	20.0			20.0	20.0	38.8	38.8	38.8			
Effective Green, g (s)	20.0	20.0			20.0	20.0	38.8	38.8	38.8			
Actuated g/C Ratio	0.29	0.29			0.29	0.29	0.55	0.55	0.55			
Clearance Time (s)	5.6	5.6			5.6	5.6	5.6	5.6	5.6			
Lane Grp Cap (vph)	322	964			964	431	981	1022	852			
v/s Ratio Prot		c0.07			0.07			c0.30				
v/s Ratio Perm	0.03					0.01	0.09		0.02			
v/c Ratio	0.11	0.24			0.23	0.02	0.17	0.55	0.03			
Uniform Delay, d1	18.4	19.2			19.1	18.0	7.7	10.0	7.1			
Progression Factor	0.60	0.59			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.7	0.6			0.6	0.1	0.4	2.1	0.1			
Delay (s)	11.7	11.8			19.7	18.1	8.0	12.1	7.2			
Level of Service	B	B			B	B	A	B	A			
Approach Delay (s)		11.8			19.5			10.9			0.0	
Approach LOS		B			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	71.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	322	637	5	72	0	0	0	0	3	621	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.0	3.7	4.2						4.9	4.9
Lane Util. Factor		1.00	1.00	1.00	1.00						0.95	1.00
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						1.00	1.00
Satd. Flow (prot)		1863	1583	1770	1863						3538	1583
Flt Permitted		1.00	1.00	0.95	1.00						1.00	1.00
Satd. Flow (perm)		1863	1583	1770	1863						3538	1583
Peak-hour factor, PHF	0.82	0.82	0.82	0.84	0.84	0.84	0.92	0.92	0.92	0.83	0.83	0.83
Adj. Flow (vph)	0	393	777	6	86	0	0	0	0	4	748	134
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	68
Lane Group Flow (vph)	0	393	777	6	86	0	0	0	0	0	752	66
Turn Type		NA	Free	Prot	NA					Perm	NA	Perm
Protected Phases		4		3	8						6	
Permitted Phases			Free							6		6
Actuated Green, G (s)		21.3	70.0	1.2	26.2						34.7	34.7
Effective Green, g (s)		21.3	70.0	1.2	26.2						34.7	34.7
Actuated g/C Ratio		0.30	1.00	0.02	0.37						0.50	0.50
Clearance Time (s)		4.2		3.7	4.2						4.9	4.9
Vehicle Extension (s)		4.9		2.0	4.6						5.2	5.2
Lane Grp Cap (vph)		566	1583	30	697						1753	784
v/s Ratio Prot		c0.21		0.00	0.05							
v/s Ratio Perm			c0.49								0.21	0.04
v/c Ratio		0.69	0.49	0.20	0.12						0.43	0.08
Uniform Delay, d1		21.5	0.0	33.9	14.4						11.3	9.3
Progression Factor		1.00	1.00	0.54	0.55						1.00	1.00
Incremental Delay, d2		4.6	1.1	1.1	0.1						0.8	0.2
Delay (s)		26.1	1.1	19.5	8.0						12.1	9.5
Level of Service		C	A	B	A						B	A
Approach Delay (s)		9.5			8.8			0.0			11.7	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	44.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	325	0	77	556	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2			4.9		
Lane Util. Factor	1.00			0.91		
Frt	1.00			1.00		
Flt Protected	0.95			0.99		
Satd. Flow (prot)	1770			5055		
Flt Permitted	0.95			0.99		
Satd. Flow (perm)	1770			5055		
Peak-hour factor, PHF	0.70	0.70	0.76	0.76	0.92	0.92
Adj. Flow (vph)	464	0	101	732	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	464	0	0	833	0	0
Turn Type	Prot		Perm	NA		
Protected Phases	4			2		
Permitted Phases			2			
Actuated Green, G (s)	25.5			35.4		
Effective Green, g (s)	25.5			35.4		
Actuated g/C Ratio	0.36			0.51		
Clearance Time (s)	4.2			4.9		
Vehicle Extension (s)	5.7			5.2		
Lane Grp Cap (vph)	644			2556		
v/s Ratio Prot	c0.26					
v/s Ratio Perm				0.16		
v/c Ratio	0.72			0.33		
Uniform Delay, d1	19.2			10.2		
Progression Factor	0.41			1.00		
Incremental Delay, d2	4.8			0.3		
Delay (s)	12.7			10.6		
Level of Service	B			B		
Approach Delay (s)	12.7			10.6	0.0	
Approach LOS	B			B	A	

Intersection Summary			
HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	50.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	130	0	0	0	177	1080
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2					4.9
Lane Util. Factor	1.00					0.91
Frt	1.00					1.00
Flt Protected	0.95					0.99
Satd. Flow (prot)	1770					5050
Flt Permitted	0.95					0.99
Satd. Flow (perm)	1770					5050
Peak-hour factor, PHF	0.59	0.59	0.92	0.92	0.82	0.82
Adj. Flow (vph)	220	0	0	0	216	1317
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	220	0	0	0	0	1533
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Actuated Green, G (s)	16.0					48.1
Effective Green, g (s)	16.0					48.1
Actuated g/C Ratio	0.22					0.66
Clearance Time (s)	4.2					4.9
Vehicle Extension (s)	4.8					5.4
Lane Grp Cap (vph)	386					3318
v/s Ratio Prot	c0.12					
v/s Ratio Perm						0.30
v/c Ratio	0.57					0.46
Uniform Delay, d1	25.5					6.2
Progression Factor	1.00					1.00
Incremental Delay, d2	3.0					0.5
Delay (s)	28.5					6.6
Level of Service	C					A
Approach Delay (s)	28.5		0.0			6.6
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	73.2	Sum of lost time (s)	9.1
Intersection Capacity Utilization	39.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

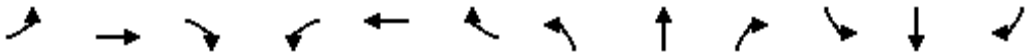
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	170	0	0	128	217	2	403	247	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.2	4.2		4.9	4.9			
Lane Util. Factor	1.00	1.00			1.00	1.00		0.91	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	1863			1863	1583		5084	1583			
Flt Permitted	0.56	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1048	1863			1863	1583		5084	1583			
Peak-hour factor, PHF	0.79	0.79	0.79	0.70	0.70	0.70	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	215	0	0	183	310	2	438	268	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	240	0	0	95	0	0	0
Lane Group Flow (vph)	9	215	0	0	183	70	0	440	173	0	0	0
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	15.8	15.8			15.8	15.8		45.3	45.3			
Effective Green, g (s)	15.8	15.8			15.8	15.8		45.3	45.3			
Actuated g/C Ratio	0.23	0.23			0.23	0.23		0.65	0.65			
Clearance Time (s)	4.2	4.2			4.2	4.2		4.9	4.9			
Vehicle Extension (s)	4.5	4.5			4.8	4.8		3.8	3.8			
Lane Grp Cap (vph)	235	419			419	356		3280	1021			
v/s Ratio Prot		c0.12			0.10							
v/s Ratio Perm	0.01					0.04		0.09	c0.11			
v/c Ratio	0.04	0.51			0.44	0.20		0.13	0.17			
Uniform Delay, d1	21.3	23.8			23.4	22.1		4.8	5.0			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.1	1.8			1.4	0.5		0.1	0.4			
Delay (s)	21.4	25.6			24.8	22.6		4.9	5.3			
Level of Service	C	C			C	C		A	A			
Approach Delay (s)		25.4			23.4			5.1			0.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	70.2	Sum of lost time (s)	9.1
Intersection Capacity Utilization	39.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	283	48	89	180	0	0	0	0	149	934	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2		4.2	4.2						4.9	
Lane Util. Factor		0.95		1.00	0.95						0.91	
Frt		0.98		1.00	1.00						0.99	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		3323		1770	3539						4980	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		3323		1770	3539						4980	
Peak-hour factor, PHF	0.90	0.90	0.90	0.77	0.77	0.77	0.92	0.92	0.92	0.79	0.79	0.79
Adj. Flow (vph)	0	314	53	116	234	0	0	0	0	189	1182	149
RTOR Reduction (vph)	0	21	0	0	0	0	0	0	0	0	15	0
Lane Group Flow (vph)	0	346	0	116	234	0	0	0	0	0	1505	0
Heavy Vehicles (%)	2%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases										6		
Actuated Green, G (s)		16.6		7.9	28.7						32.2	
Effective Green, g (s)		16.6		7.9	28.7						32.2	
Actuated g/C Ratio		0.24		0.11	0.41						0.46	
Clearance Time (s)		4.2		4.2	4.2						4.9	
Vehicle Extension (s)		6.8		2.0	6.8						5.4	
Lane Grp Cap (vph)		788		199	1450						2290	
v/s Ratio Prot		c0.10		c0.07	0.07							
v/s Ratio Perm											0.30	
v/c Ratio		0.44		0.58	0.16						0.66	
Uniform Delay, d1		22.7		29.5	13.0						14.6	
Progression Factor		1.00		1.46	0.95						1.00	
Incremental Delay, d2		1.3		2.7	0.2						1.5	
Delay (s)		24.1		45.7	12.6						16.1	
Level of Service		C		D	B						B	
Approach Delay (s)		24.1			23.6			0.0			16.1	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	13.3
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

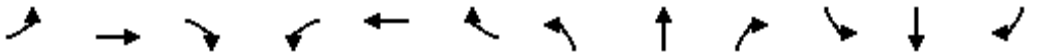


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	124	309	0	0	245	100	23	426	25	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.7	4.2			4.2	4.2		4.9	4.9			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.91	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	3374			3539	1583		5072	1583			
Flt Permitted	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1770	3374			3539	1583		5072	1583			
Peak-hour factor, PHF	0.88	0.88	0.88	0.81	0.81	0.81	0.91	0.91	0.91	0.92	0.92	0.92
Adj. Flow (vph)	141	351	0	0	302	123	25	468	27	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	79	0	0	19	0	0	0
Lane Group Flow (vph)	141	351	0	0	302	44	0	493	8	0	0	0
Heavy Vehicles (%)	2%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases						8	2		2			
Actuated Green, G (s)	12.5	41.2			25.0	25.0		19.7	19.7			
Effective Green, g (s)	12.5	41.2			25.0	25.0		19.7	19.7			
Actuated g/C Ratio	0.18	0.59			0.36	0.36		0.28	0.28			
Clearance Time (s)	3.7	4.2			4.2	4.2		4.9	4.9			
Lane Grp Cap (vph)	316	1985			1263	565		1427	445			
v/s Ratio Prot	c0.08	0.10			c0.09							
v/s Ratio Perm						0.03		0.10	0.00			
v/c Ratio	0.45	0.18			0.24	0.08		0.35	0.02			
Uniform Delay, d1	25.7	6.6			15.8	14.9		20.0	18.2			
Progression Factor	1.28	0.87			1.00	1.00		1.00	1.00			
Incremental Delay, d2	4.1	0.2			0.4	0.3		0.7	0.1			
Delay (s)	37.0	5.9			16.3	15.1		20.7	18.2			
Level of Service	D	A			B	B		C	B			
Approach Delay (s)		14.8			15.9			20.6			0.0	
Approach LOS		B			B			C			A	

Intersection Summary			
HCM 2000 Control Delay	17.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

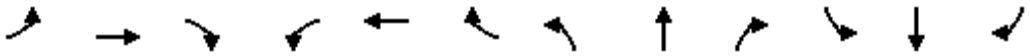
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	206	34	97	295	38	31	183	23	68	353	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	0.98		1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3464		1770	3479		1770	3480		1770	3463	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3464		1770	3479		1770	3480		1770	3463	
Peak-hour factor, PHF	0.85	0.85	0.85	0.84	0.84	0.84	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	65	242	40	115	351	45	43	254	32	94	490	82
RTOR Reduction (vph)	0	13	0	0	10	0	0	9	0	0	12	0
Lane Group Flow (vph)	65	269	0	115	386	0	43	277	0	94	560	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	4.1	12.4		6.9	15.2		3.6	14.1		6.3	16.8	
Effective Green, g (s)	4.1	12.4		6.9	15.2		3.6	14.1		6.3	16.8	
Actuated g/C Ratio	0.07	0.22		0.12	0.27		0.06	0.25		0.11	0.30	
Clearance Time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Vehicle Extension (s)	2.0	3.5		2.0	3.5		2.0	3.5		2.0	3.5	
Lane Grp Cap (vph)	127	754		214	929		111	862		195	1022	
v/s Ratio Prot	0.04	0.08		c0.06	c0.11		0.02	0.08		c0.05	c0.16	
v/s Ratio Perm												
v/c Ratio	0.51	0.36		0.54	0.42		0.39	0.32		0.48	0.55	
Uniform Delay, d1	25.4	18.9		23.5	17.2		25.6	17.5		23.8	16.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.4	0.3		1.3	0.4		0.8	0.3		0.7	0.7	
Delay (s)	26.9	19.2		24.8	17.5		26.4	17.7		24.5	17.5	
Level of Service	C	B		C	B		C	B		C	B	
Approach Delay (s)		20.6			19.2			18.9			18.5	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	56.9	Sum of lost time (s)	17.2
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



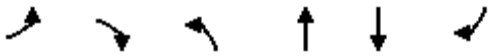
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	217	74	92	284	91	115	336	39	79	388	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9		4.0	4.9	4.9
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3410		1770	3484		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3410		1770	3484		1770	3539	1583
Peak-hour factor, PHF	0.83	0.83	0.83	0.92	0.92	0.92	0.80	0.80	0.80	0.78	0.78	0.78
Adj. Flow (vph)	73	261	89	100	309	99	144	420	49	101	497	94
RTOR Reduction (vph)	0	0	68	0	32	0	0	8	0	0	0	67
Lane Group Flow (vph)	73	261	21	100	376	0	144	461	0	101	497	27
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases			4									2
Actuated Green, G (s)	6.0	15.9	15.9	7.0	16.9		8.3	20.6		7.0	19.3	19.3
Effective Green, g (s)	6.0	15.9	15.9	7.0	16.9		8.3	20.6		7.0	19.3	19.3
Actuated g/C Ratio	0.09	0.23	0.23	0.10	0.25		0.12	0.30		0.10	0.28	0.28
Clearance Time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9		4.0	4.9	4.9
Vehicle Extension (s)	2.0	4.5	4.5	2.0	4.5		2.0	5.0		2.0	5.0	5.0
Lane Grp Cap (vph)	155	823	368	181	843		215	1050		181	1000	447
v/s Ratio Prot	0.04	0.07		c0.06	c0.11		c0.08	0.13		0.06	c0.14	
v/s Ratio Perm			0.01									0.02
v/c Ratio	0.47	0.32	0.06	0.55	0.45		0.67	0.44		0.56	0.50	0.06
Uniform Delay, d1	29.6	21.7	20.4	29.2	21.7		28.7	19.2		29.2	20.4	17.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.8	0.4	0.1	2.1	0.7		6.0	0.6		2.1	0.8	0.1
Delay (s)	30.5	22.1	20.5	31.2	22.4		34.7	19.8		31.3	21.3	18.0
Level of Service	C	C	C	C	C		C	B		C	C	B
Approach Delay (s)		23.2			24.1			23.3			22.3	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	68.3	Sum of lost time (s)	17.8
Intersection Capacity Utilization	46.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



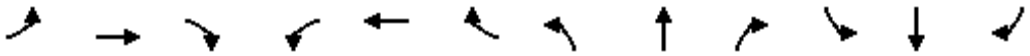
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	288	563	4	38	0	0	0	0	0	649	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7	4.0		3.7						4.1	
Lane Util. Factor		1.00	1.00		1.00						0.95	
Frt		1.00	0.85		1.00						0.98	
Flt Protected		1.00	1.00		1.00						1.00	
Satd. Flow (prot)		1863	1583		1854						3451	
Flt Permitted		1.00	1.00		0.97						1.00	
Satd. Flow (perm)		1863	1583		1808						3451	
Peak-hour factor, PHF	0.82	0.82	0.82	0.75	0.75	0.75	0.92	0.92	0.92	0.87	0.87	0.87
Adj. Flow (vph)	0	351	687	5	51	0	0	0	0	0	746	149
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	18	0
Lane Group Flow (vph)	0	351	687	0	56	0	0	0	0	0	877	0
Turn Type		NA	Free	Perm	NA						NA	
Protected Phases		4			8						6	
Permitted Phases			Free	8						6		
Actuated Green, G (s)		20.2	70.0		20.2						42.0	
Effective Green, g (s)		20.2	70.0		20.2						42.0	
Actuated g/C Ratio		0.29	1.00		0.29						0.60	
Clearance Time (s)		3.7			3.7						4.1	
Vehicle Extension (s)		5.0			4.8						4.6	
Lane Grp Cap (vph)		537	1583		521						2070	
v/s Ratio Prot		c0.19									0.25	
v/s Ratio Perm			c0.43		0.03							
v/c Ratio		0.65	0.43		0.11						0.42	
Uniform Delay, d1		21.8	0.0		18.3						7.5	
Progression Factor		1.00	1.00		1.00						0.44	
Incremental Delay, d2		3.8	0.9		0.2						0.6	
Delay (s)		25.7	0.9		18.5						3.9	
Level of Service		C	A		B						A	
Approach Delay (s)		9.3			18.5			0.0			3.9	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	7.8
Intersection Capacity Utilization	44.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



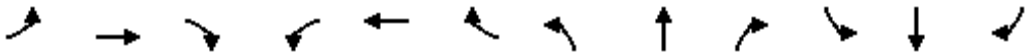
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	288	0	42	343	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6			4.6		
Lane Util. Factor	1.00			0.95		
Frt	1.00			1.00		
Flt Protected	0.95			0.99		
Satd. Flow (prot)	1770			3520		
Flt Permitted	0.95			0.99		
Satd. Flow (perm)	1770			3520		
Peak-hour factor, PHF	0.87	0.87	0.85	0.85	0.92	0.92
Adj. Flow (vph)	331	0	49	404	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	331	0	0	453	0	0
Turn Type	Prot		Perm	NA		
Protected Phases	4			2		
Permitted Phases			2			
Actuated Green, G (s)	18.5			35.7		
Effective Green, g (s)	18.5			35.7		
Actuated g/C Ratio	0.29			0.56		
Clearance Time (s)	4.6			4.6		
Vehicle Extension (s)	5.0			4.5		
Lane Grp Cap (vph)	516			1982		
v/s Ratio Prot	c0.19					
v/s Ratio Perm				0.13		
v/c Ratio	0.64			0.23		
Uniform Delay, d1	19.6			6.9		
Progression Factor	1.00			1.00		
Incremental Delay, d2	3.7			0.3		
Delay (s)	23.3			7.2		
Level of Service	C			A		
Approach Delay (s)	23.3			7.2	0.0	
Approach LOS	C			A	A	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	63.4	Sum of lost time (s)	9.2
Intersection Capacity Utilization	34.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



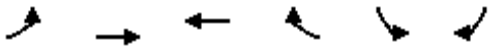
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	195	131	0	0	0	0	0	0	343	873	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.2							4.6	4.6	
Lane Util. Factor		0.95	1.00							1.00	0.95	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		3539	1583							1770	3539	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		3539	1583							1770	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.80	0.80	0.80
Adj. Flow (vph)	0	212	142	0	0	0	0	0	0	429	1091	0
RTOR Reduction (vph)	0	0	19	0	0	0	0	0	0	144	0	0
Lane Group Flow (vph)	0	212	123	0	0	0	0	0	0	285	1091	0
Turn Type		NA	Perm							Split	NA	
Protected Phases		4								6	6	
Permitted Phases			4									
Actuated Green, G (s)		17.4	17.4							43.8	43.8	
Effective Green, g (s)		17.4	17.4							43.8	43.8	
Actuated g/C Ratio		0.25	0.25							0.63	0.63	
Clearance Time (s)		4.2	4.2							4.6	4.6	
Vehicle Extension (s)		6.4	6.4							5.6	5.6	
Lane Grp Cap (vph)		879	393							1107	2214	
v/s Ratio Prot		0.06								0.16	c0.31	
v/s Ratio Perm			c0.08									
v/c Ratio		0.24	0.31							0.26	0.49	
Uniform Delay, d1		21.0	21.4							5.8	7.1	
Progression Factor		1.00	1.00							0.26	0.61	
Incremental Delay, d2		0.4	1.4							0.5	0.7	
Delay (s)		21.5	22.9							2.0	5.1	
Level of Service		C	C							A	A	
Approach Delay (s)		22.0			0.0			0.0			4.2	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	35.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	198	340	0	0	0	0	0	187	95	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6						4.6	4.6			
Lane Util. Factor	1.00	1.00						0.95	1.00			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						1.00	1.00			
Satd. Flow (prot)	1770	1863						3539	1583			
Flt Permitted	0.95	1.00						1.00	1.00			
Satd. Flow (perm)	1770	1863						3539	1583			
Peak-hour factor, PHF	0.89	0.89	0.89	0.92	0.92	0.92	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	222	382	0	0	0	0	0	212	108	0	0	0
RTOR Reduction (vph)	156	0	0	0	0	0	0	0	43	0	0	0
Lane Group Flow (vph)	66	382	0	0	0	0	0	212	65	0	0	0
Turn Type	Split	NA						NA	Perm			
Protected Phases	4	4						2				
Permitted Phases									2			
Actuated Green, G (s)	26.6	26.6						54.2	54.2			
Effective Green, g (s)	26.6	26.6						54.2	54.2			
Actuated g/C Ratio	0.30	0.30						0.60	0.60			
Clearance Time (s)	4.6	4.6						4.6	4.6			
Vehicle Extension (s)	5.0	5.0						4.5	4.5			
Lane Grp Cap (vph)	523	550						2131	953			
v/s Ratio Prot	0.04	c0.21						c0.06				
v/s Ratio Perm									0.04			
v/c Ratio	0.13	0.69						0.10	0.07			
Uniform Delay, d1	23.2	28.1						7.6	7.4			
Progression Factor	1.00	1.00						1.00	1.00			
Incremental Delay, d2	0.2	4.8						0.1	0.1			
Delay (s)	23.4	32.9						7.7	7.6			
Level of Service	C	C						A	A			
Approach Delay (s)		29.4			0.0			7.6			0.0	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	21.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	8	687	160	83	279	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8	4.8	4.8	
Lane Util. Factor		0.95	0.95	1.00	0.97	
Frt		1.00	1.00	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3495	3374	1495	3391	
Flt Permitted		0.95	1.00	1.00	0.95	
Satd. Flow (perm)		3329	3374	1495	3391	
Peak-hour factor, PHF	0.65	0.65	0.93	0.93	0.76	0.76
Adj. Flow (vph)	12	1057	172	89	367	9
RTOR Reduction (vph)	0	0	0	43	3	0
Lane Group Flow (vph)	0	1069	172	46	373	0
Heavy Vehicles (%)	25%	3%	7%	8%	3%	14%
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)		31.2	31.2	31.2	19.2	
Effective Green, g (s)		31.2	31.2	31.2	19.2	
Actuated g/C Ratio		0.52	0.52	0.52	0.32	
Clearance Time (s)		4.8	4.8	4.8	4.8	
Lane Grp Cap (vph)		1731	1754	777	1085	
v/s Ratio Prot			0.05		c0.11	
v/s Ratio Perm		c0.32		0.03		
v/c Ratio		0.62	0.10	0.06	0.34	
Uniform Delay, d1		10.2	7.3	7.1	15.6	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.7	0.1	0.1	0.9	
Delay (s)		11.8	7.4	7.3	16.5	
Level of Service		B	A	A	B	
Approach Delay (s)		11.8	7.4		16.5	
Approach LOS		B	A		B	

Intersection Summary			
HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

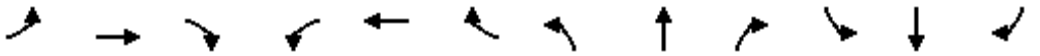
Movement	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	11	3	109	142	1	9	61	9	444	387	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6			4.6	4.6			4.6	4.6	4.6	4.6	
Lane Util. Factor	1.00			1.00	1.00			0.95	1.00	1.00	1.00	
Frt	0.98			1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected	1.00			1.00	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (prot)	1830			1860	1583			3516	1583	1770	1862	
Flt Permitted	1.00			0.99	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (perm)	1830			1852	1583			3516	1583	1770	1862	
Peak-hour factor, PHF	0.84	0.84	0.79	0.79	0.79	0.79	0.92	0.92	0.92	0.71	0.71	0.71
Adj. Flow (vph)	87	13	4	138	180	1	10	66	10	625	545	1
RTOR Reduction (vph)	6	0	0	0	16	0	0	0	9	0	0	0
Lane Group Flow (vph)	94	0	0	142	165	0	0	76	1	625	546	0
Turn Type	NA		Perm	NA	custom		Split	NA	Perm	Split	NA	
Protected Phases	6			6	2		4	4		5	5	
Permitted Phases			6						4			
Actuated Green, G (s)	21.6			21.6	73.0			8.7	8.7	46.8	46.8	
Effective Green, g (s)	21.6			21.6	73.0			8.7	8.7	46.8	46.8	
Actuated g/C Ratio	0.23			0.23	0.76			0.09	0.09	0.49	0.49	
Clearance Time (s)	4.6			4.6	4.6			4.6	4.6	4.6	4.6	
Vehicle Extension (s)	5.0			5.0	5.0			4.0	4.0	5.0	5.0	
Lane Grp Cap (vph)	411			416	1203			318	143	862	907	
v/s Ratio Prot	0.05				0.10			c0.02		c0.35	0.29	
v/s Ratio Perm				c0.08					0.00			
v/c Ratio	0.23			0.34	0.14			0.24	0.01	0.73	0.60	
Uniform Delay, d1	30.4			31.2	3.1			40.6	39.7	19.5	17.8	
Progression Factor	1.00			1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.6			1.0	0.2			0.5	0.0	5.3	3.0	
Delay (s)	31.0			32.3	3.3			41.1	39.7	24.8	20.8	
Level of Service	C			C	A			D	D	C	C	
Approach Delay (s)	31.0			16.0				40.9			22.9	
Approach LOS	C			B				D			C	

Intersection Summary			
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	96.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SWR2
Lane Configurations	
Volume (vph)	3
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.2
Lane Util. Factor	1.00
Frt	0.86
Flt Protected	1.00
Satd. Flow (prot)	1611
Flt Permitted	1.00
Satd. Flow (perm)	1611
Peak-hour factor, PHF	0.75
Adj. Flow (vph)	4
RTOR Reduction (vph)	4
Lane Group Flow (vph)	0
Turn Type	Prot
Protected Phases	8
Permitted Phases	
Actuated Green, G (s)	0.9
Effective Green, g (s)	0.9
Actuated g/C Ratio	0.01
Clearance Time (s)	4.2
Vehicle Extension (s)	2.0
Lane Grp Cap (vph)	15
v/s Ratio Prot	c0.00
v/s Ratio Perm	
v/c Ratio	0.00
Uniform Delay, d1	47.1
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	47.1
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	472	18	8	134	0	9	0	16	222	505	145
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
Lane Util. Factor		1.00		1.00	1.00		1.00		1.00	1.00	1.00	1.00
Frt		0.99		1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		1853		1770	1863		1770		1583	1770	1863	1583
Flt Permitted		1.00		0.16	1.00		0.25		1.00	0.95	1.00	1.00
Satd. Flow (perm)		1853		298	1863		462		1583	1770	1863	1583
Peak-hour factor, PHF	0.70	0.70	0.70	0.87	0.87	0.87	0.78	0.78	0.78	0.90	0.90	0.90
Adj. Flow (vph)	0	674	26	9	154	0	12	0	21	247	561	161
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	12	0	0	94
Lane Group Flow (vph)	0	698	0	9	154	0	12	0	9	247	561	67
Turn Type		NA		Perm	NA		D.Pm		Perm	Perm	NA	Perm
Protected Phases					4						2	
Permitted Phases		4		4			2		2	2		2
Actuated Green, G (s)		25.0		25.0	25.0		24.0		24.0	24.0	24.0	24.0
Effective Green, g (s)		25.0		25.0	25.0		24.0		24.0	24.0	24.0	24.0
Actuated g/C Ratio		0.43		0.43	0.43		0.41		0.41	0.41	0.41	0.41
Clearance Time (s)		4.5		4.5	4.5		4.5		4.5	4.5	4.5	4.5
Lane Grp Cap (vph)		798		128	803		191		655	732	770	655
v/s Ratio Prot					0.08						c0.30	
v/s Ratio Perm		c0.38		0.03			0.03		0.01	0.14		0.04
v/c Ratio		0.87		0.07	0.19		0.06		0.01	0.34	0.73	0.10
Uniform Delay, d1		15.1		9.7	10.2		10.2		10.0	11.6	14.3	10.4
Progression Factor		1.00		1.00	1.00		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		12.8		1.1	0.5		0.6		0.0	1.2	6.0	0.3
Delay (s)		27.9		10.7	10.8		10.9		10.1	12.8	20.2	10.7
Level of Service		C		B	B		B		B	B	C	B
Approach Delay (s)		27.9			10.8			10.4			16.8	
Approach LOS		C			B			B			B	

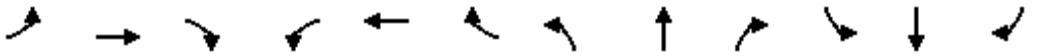
Intersection Summary			
HCM 2000 Control Delay	20.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	58.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	77.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	465	147	6	116	43	31	123	15	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			5.2	5.2			
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00			
Frt	1.00	0.97		1.00	0.96			1.00	0.85			
Flt Protected	0.95	1.00		0.95	1.00			0.99	1.00			
Satd. Flow (prot)	1770	1811		1770	1787			1844	1583			
Flt Permitted	0.63	1.00		0.25	1.00			0.99	1.00			
Satd. Flow (perm)	1182	1811		475	1787			1844	1583			
Peak-hour factor, PHF	0.69	0.69	0.96	0.81	0.81	0.81	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	58	674	153	7	143	53	33	131	16	0	0	0
RTOR Reduction (vph)	0	13	0	0	18	0	0	0	14	0	0	0
Lane Group Flow (vph)	58	814	0	7	178	0	0	164	2	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm			
Protected Phases		8			4			6				
Permitted Phases	8			4			6		6			
Actuated Green, G (s)	39.8	39.8		39.8	39.8			9.0	9.0			
Effective Green, g (s)	39.8	39.8		39.8	39.8			9.0	9.0			
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.15	0.15			
Clearance Time (s)	6.0	6.0		6.0	6.0			5.2	5.2			
Lane Grp Cap (vph)	784	1201		315	1185			276	237			
v/s Ratio Prot		c0.45			0.10							
v/s Ratio Perm	0.05			0.01				0.09	0.00			
v/c Ratio	0.07	0.68		0.02	0.15			0.59	0.01			
Uniform Delay, d1	3.6	6.2		3.5	3.8			23.8	21.7			
Progression Factor	1.00	1.00		2.33	2.31			1.00	1.00			
Incremental Delay, d2	0.2	3.1		0.1	0.3			9.1	0.1			
Delay (s)	3.8	9.3		8.2	9.0			32.9	21.8			
Level of Service	A	A		A	A			C	C			
Approach Delay (s)		8.9			9.0			31.9			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	361	31	0	130	0	0	0	0	65	715	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5					4.9	4.9	4.9
Lane Util. Factor		1.00			1.00					1.00	0.95	1.00
Frt		0.99			1.00					1.00	1.00	0.85
Flt Protected		1.00			1.00					0.95	1.00	1.00
Satd. Flow (prot)		1843			1863					1770	3539	1583
Flt Permitted		1.00			1.00					0.95	1.00	1.00
Satd. Flow (perm)		1843			1863					1770	3539	1583
Peak-hour factor, PHF	0.84	0.84	0.84	0.86	0.86	0.86	0.92	0.92	0.92	0.77	0.77	0.77
Adj. Flow (vph)	0	430	37	0	151	0	0	0	0	84	929	144
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	0	0	0	88
Lane Group Flow (vph)	0	462	0	0	151	0	0	0	0	84	929	56
Turn Type		NA			NA					Perm	NA	Perm
Protected Phases		4			4						2	
Permitted Phases										2		2
Actuated Green, G (s)		27.0			27.0					23.0	23.0	23.0
Effective Green, g (s)		27.0			27.0					23.0	23.0	23.0
Actuated g/C Ratio		0.45			0.45					0.39	0.39	0.39
Clearance Time (s)		4.5			4.5					4.9	4.9	4.9
Lane Grp Cap (vph)		837			846					685	1370	612
v/s Ratio Prot		c0.25			0.08						c0.26	
v/s Ratio Perm										0.05		0.04
v/c Ratio		0.55			0.18					0.12	0.68	0.09
Uniform Delay, d1		11.8			9.6					11.7	15.1	11.6
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		2.6			0.5					0.4	2.7	0.3
Delay (s)		14.4			10.1					12.1	17.8	11.9
Level of Service		B			B					B	B	B
Approach Delay (s)		14.4			10.1			0.0			16.7	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	15.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	9.4
Intersection Capacity Utilization	50.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR
Lane Configurations										
Volume (vph)	108	299	17	72	94	50	110	36	231	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2	5.2		5.2	5.2	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	0.95	
Frt	1.00	0.99		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	
Satd. Flow (prot)	1770	1848		1770	1863	1583		1770	3515	
Flt Permitted	0.68	1.00		0.53	1.00	1.00		0.95	1.00	
Satd. Flow (perm)	1262	1848		991	1863	1583		1770	3515	
Peak-hour factor, PHF	0.85	0.85	0.85	0.76	0.76	0.76	0.86	0.86	0.86	0.86
Adj. Flow (vph)	127	352	20	95	124	66	128	42	269	13
RTOR Reduction (vph)	0	15	0	0	0	24	0	0	6	0
Lane Group Flow (vph)	127	357	0	95	124	42	0	170	276	0
Turn Type	Perm	NA		Perm	NA	Perm	custom	Prot	NA	
Protected Phases		4			4			2		
Permitted Phases	4			4		4	2		2	
Actuated Green, G (s)	37.8	37.8		37.8	37.8	37.8		11.8	11.8	
Effective Green, g (s)	37.8	37.8		37.8	37.8	37.8		11.8	11.8	
Actuated g/C Ratio	0.63	0.63		0.63	0.63	0.63		0.20	0.20	
Clearance Time (s)	5.2	5.2		5.2	5.2	5.2		5.2	5.2	
Lane Grp Cap (vph)	795	1164		624	1173	997		348	691	
v/s Ratio Prot		c0.19			0.07					
v/s Ratio Perm	0.10			0.10		0.03		0.10	0.08	
v/c Ratio	0.16	0.31		0.15	0.11	0.04		0.49	0.40	
Uniform Delay, d1	4.6	5.1		4.5	4.4	4.2		21.4	21.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.4	0.7		0.5	0.2	0.1		4.8	1.7	
Delay (s)	5.0	5.8		5.1	4.6	4.3		26.3	22.7	
Level of Service	A	A		A	A	A		C	C	
Approach Delay (s)		5.6			4.7				24.1	
Approach LOS		A			A				C	

Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



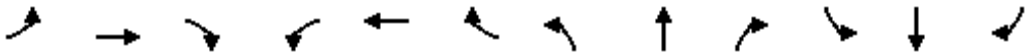
Movement	WBL	WBT	SBL	SBR	SBR2	SER	NWL	NWT
Lane Configurations								
Volume (vph)	97	102	167	579	2	9	23	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	4.9	4.9		4.6		4.0
Lane Util. Factor	1.00	1.00	1.00	0.88		1.00		1.00
Frt	1.00	1.00	1.00	0.85		0.86		1.00
Flt Protected	0.95	1.00	0.95	1.00		1.00		0.98
Satd. Flow (prot)	1770	1863	1770	2787		1611		1832
Flt Permitted	0.95	1.00	0.95	1.00		1.00		0.98
Satd. Flow (perm)	1770	1863	1770	2787		1611		1832
Peak-hour factor, PHF	0.65	0.65	0.73	0.73	0.73	0.45	0.63	0.63
Adj. Flow (vph)	149	157	229	793	3	20	37	75
RTOR Reduction (vph)	0	0	0	89	0	17	0	0
Lane Group Flow (vph)	149	157	229	707	0	3	0	112
Turn Type	Perm	NA	Prot	Perm		Perm	Perm	NA
Protected Phases		4	2					1
Permitted Phases	4			2		4	1	
Actuated Green, G (s)	7.5	7.5	19.4	19.4		7.5		5.5
Effective Green, g (s)	7.5	7.5	19.4	19.4		7.5		5.5
Actuated g/C Ratio	0.16	0.16	0.42	0.42		0.16		0.12
Clearance Time (s)	4.6	4.6	4.9	4.9		4.6		4.0
Vehicle Extension (s)	4.0	4.0	4.0	4.0		4.0		2.0
Lane Grp Cap (vph)	289	304	748	1177		263		219
v/s Ratio Prot		c0.08	0.13					
v/s Ratio Perm	0.08			c0.25		0.00		0.06
v/c Ratio	0.52	0.52	0.31	0.60		0.01		0.51
Uniform Delay, d1	17.5	17.5	8.8	10.3		16.1		18.9
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00
Incremental Delay, d2	2.1	2.0	0.3	1.0		0.0		0.8
Delay (s)	19.6	19.5	9.1	11.3		16.1		19.8
Level of Service	B	B	A	B		B		B
Approach Delay (s)		19.6	10.8					19.8
Approach LOS		B	B					B

Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	45.9	Sum of lost time (s)	16.5
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	176	349	9	0	0	0	0	132	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.2						4.2	
Lane Util. Factor					0.95						1.00	
Frt					1.00						0.99	
Flt Protected					0.98						1.00	
Satd. Flow (prot)					3473						1837	
Flt Permitted					0.98						1.00	
Satd. Flow (perm)					3473						1837	
Peak-hour factor, PHF	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.69	0.69	0.69
Adj. Flow (vph)	0	0	0	185	367	9	0	0	0	0	191	22
RTOR Reduction (vph)	0	0	0	0	92	0	0	0	0	0	7	0
Lane Group Flow (vph)	0	0	0	0	469	0	0	0	0	0	206	0
Turn Type				Perm	NA						NA	
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					30.8						20.8	
Effective Green, g (s)					30.8						20.8	
Actuated g/C Ratio					0.51						0.35	
Clearance Time (s)					4.2						4.2	
Lane Grp Cap (vph)					1782						636	
v/s Ratio Prot											c0.11	
v/s Ratio Perm					0.14							
v/c Ratio					0.26						0.32	
Uniform Delay, d1					8.2						14.4	
Progression Factor					1.00						1.00	
Incremental Delay, d2					0.4						1.3	
Delay (s)					8.6						15.8	
Level of Service					A						B	
Approach Delay (s)		0.0			8.6			0.0			15.8	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	29.9%	ICU Level of Service	A
Analysis Period (min)	15		

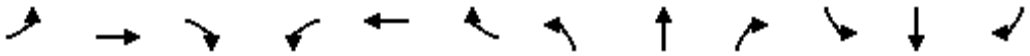
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	81	194	7	75	238	0	0	132	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.2	4.2	4.2	4.2			4.2	
Lane Util. Factor					0.95	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.99	
Flt Protected					0.99	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					3488	1583	1770	1863			1853	
Flt Permitted					0.99	1.00	0.66	1.00			1.00	
Satd. Flow (perm)					3488	1583	1222	1863			1853	
Peak-hour factor, PHF	0.92	0.92	0.92	0.81	0.81	0.81	0.93	0.93	0.93	0.86	0.86	0.86
Adj. Flow (vph)	0	0	0	100	240	9	81	256	0	0	153	6
RTOR Reduction (vph)	0	0	0	0	0	6	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	0	340	3	81	256	0	0	156	0
Turn Type				Perm	NA	Perm	Perm	NA			NA	
Protected Phases					4			6			2	
Permitted Phases				4		4	6					
Actuated Green, G (s)					22.0	22.0	28.0	28.0			28.0	
Effective Green, g (s)					22.0	22.0	28.0	28.0			28.0	
Actuated g/C Ratio					0.38	0.38	0.48	0.48			0.48	
Clearance Time (s)					4.2	4.2	4.2	4.2			4.2	
Lane Grp Cap (vph)					1313	596	585	893			888	
v/s Ratio Prot								c0.14			0.08	
v/s Ratio Perm					0.10	0.00	0.07					
v/c Ratio					0.26	0.01	0.14	0.29			0.18	
Uniform Delay, d1					12.6	11.4	8.5	9.2			8.6	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					0.5	0.0	0.5	0.8			0.4	
Delay (s)					13.0	11.4	9.0	10.0			9.1	
Level of Service					B	B	A	A			A	
Approach Delay (s)		0.0			13.0			9.7			9.1	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	58.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		

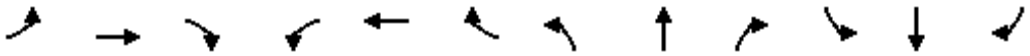
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	115	236	3	5	37	0	0	112	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.2	5.2		5.2			5.2	
Lane Util. Factor					0.95	1.00		1.00			1.00	
Frt					1.00	0.85		1.00			0.96	
Flt Protected					0.98	1.00		0.99			1.00	
Satd. Flow (prot)					3482	1583		1851			1792	
Flt Permitted					0.98	1.00		0.97			1.00	
Satd. Flow (perm)					3482	1583		1808			1792	
Peak-hour factor, PHF	0.92	0.92	0.92	0.96	0.96	0.96	0.58	0.58	0.58	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	120	246	3	9	64	0	0	132	52
RTOR Reduction (vph)	0	0	0	0	0	2	0	0	0	0	24	0
Lane Group Flow (vph)	0	0	0	0	366	1	0	73	0	0	160	0
Turn Type				Perm	NA	Perm	Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4		4	2					
Actuated Green, G (s)					16.8	16.8		32.8			32.8	
Effective Green, g (s)					16.8	16.8		32.8			32.8	
Actuated g/C Ratio					0.28	0.28		0.55			0.55	
Clearance Time (s)					5.2	5.2		5.2			5.2	
Lane Grp Cap (vph)					974	443		988			979	
v/s Ratio Prot											c0.09	
v/s Ratio Perm					0.11	0.00		0.04				
v/c Ratio					0.38	0.00		0.07			0.16	
Uniform Delay, d1					17.4	15.6		6.4			6.8	
Progression Factor					0.63	1.00		0.89			1.00	
Incremental Delay, d2					1.1	0.0		0.1			0.4	
Delay (s)					12.1	15.6		5.8			7.1	
Level of Service					B	B		A			A	
Approach Delay (s)		0.0			12.2			5.8			7.1	
Approach LOS		A			B			A			A	

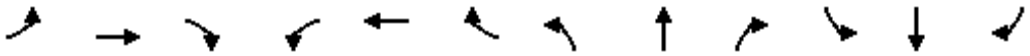
Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	25	226	79	18	262	0	0	117	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.4	5.4		5.4			5.4	
Lane Util. Factor					0.91	1.00		0.95			0.95	
Frt					1.00	0.85		1.00			0.92	
Flt Protected					1.00	1.00		1.00			1.00	
Satd. Flow (prot)					4766	1583		3528			3265	
Flt Permitted					1.00	1.00		0.93			1.00	
Satd. Flow (perm)					4766	1583		3283			3265	
Peak-hour factor, PHF	0.92	0.92	0.92	0.93	0.93	0.93	0.86	0.86	0.86	0.84	0.84	0.84
Adj. Flow (vph)	0	0	0	27	243	85	21	305	0	0	139	148
RTOR Reduction (vph)	0	0	0	0	0	60	0	0	0	0	70	0
Lane Group Flow (vph)	0	0	0	0	270	25	0	326	0	0	217	0
Heavy Vehicles (%)	2%	2%	2%	2%	9%	2%	2%	2%	2%	2%	2%	2%
Turn Type				Perm	NA	Perm	Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4		4	2					
Actuated Green, G (s)					17.4	17.4		31.8			31.8	
Effective Green, g (s)					17.4	17.4		31.8			31.8	
Actuated g/C Ratio					0.29	0.29		0.53			0.53	
Clearance Time (s)					5.4	5.4		5.4			5.4	
Lane Grp Cap (vph)					1382	459		1739			1730	
v/s Ratio Prot											0.07	
v/s Ratio Perm					0.06	0.02		c0.10				
v/c Ratio					0.20	0.05		0.19			0.13	
Uniform Delay, d1					16.0	15.4		7.4			7.1	
Progression Factor					1.00	1.00		1.00			1.00	
Incremental Delay, d2					0.3	0.2		0.2			0.1	
Delay (s)					16.3	15.6		7.6			7.2	
Level of Service					B	B		A			A	
Approach Delay (s)		0.0			16.2			7.6			7.2	
Approach LOS		A			B			A			A	

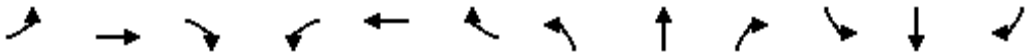
Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.19		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	0	206	162	20	219	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.79	0.79	0.79	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	245	193	25	277	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					262							
pX, platoon unblocked												
vC, conflicting volume	438			0			82	438	0	384	245	82
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	438			0			82	438	0	384	245	82
tC, single (s)	4.1			4.1			7.8	6.6	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			97	45	100	100	100	100
cM capacity (veh/h)	1132			1636			861	506	1091	314	660	968

Direction, Lane #	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2
Volume Total	82	82	82	193	118	185
Volume Left	0	0	0	0	25	0
Volume Right	0	0	0	193	0	0
cSH	1700	1700	1700	1700	556	506
Volume to Capacity	0.05	0.05	0.05	0.11	0.21	0.36
Queue Length 95th (ft)	0	0	0	0	20	41
Control Delay (s)	0.0	0.0	0.0	0.0	13.2	16.1
Lane LOS					B	C
Approach Delay (s)	0.0				15.0	
Approach LOS					B	

Intersection Summary				
Average Delay	6.1			
Intersection Capacity Utilization	23.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	58	168	0	0	0	0	0	459	241
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	65	189	0	0	0	0	0	499	262
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					535							
pX, platoon unblocked												
vC, conflicting volume	189			0			705	319	0	319	319	63
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	189			0			705	319	0	319	319	63
tC, single (s)	4.1			4.4			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			96			100	100	100	100	13	74
cM capacity (veh/h)	1397			1525			60	575	1091	595	571	989

Direction, Lane #	WB 1	WB 2	WB 3	SB 1	SB 2
Volume Total	103	76	76	333	428
Volume Left	65	0	0	0	0
Volume Right	0	0	0	0	262
cSH	1525	1700	1700	571	770
Volume to Capacity	0.04	0.04	0.04	0.58	0.56
Queue Length 95th (ft)	3	0	0	93	87
Control Delay (s)	4.8	0.0	0.0	19.7	15.4
Lane LOS	A			C	C
Approach Delay (s)	2.0			17.3	
Approach LOS				C	

Intersection Summary				
Average Delay	13.5			
Intersection Capacity Utilization	31.5%	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 (veh/h)	3	0	3	80	212	111	13	47	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.50	0.50	0.50	0.91	0.91	0.91	0.68	0.68	0.68	0.92	0.92	0.92
Hourly flow rate (vph)	6	0	6	88	233	122	19	69	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1199							
pX, platoon unblocked												
vC, conflicting volume	233			6			424	424	3	458	427	233
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	233			6			424	424	3	458	427	233
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			94			96	86	100	100	100	100
cM capacity (veh/h)	1346			1595			519	488	1087	440	492	811

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	12	321	122	88
Volume Left	6	88	0	19
Volume Right	6	0	122	0
cSH	1346	1595	1700	495
Volume to Capacity	0.00	0.06	0.07	0.18
Queue Length 95th (ft)	0	4	0	16
Control Delay (s)	3.9	2.4	0.0	13.9
Lane LOS	A	A		B
Approach Delay (s)	3.9	1.7		13.9
Approach LOS				B

Intersection Summary				
Average Delay	3.7			
Intersection Capacity Utilization	26.8%	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 (veh/h)	0	172	5	0	0	0	0	0	16	157	108	9
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.92	0.92	0.92	0.67	0.67	0.67	0.85	0.85	0.85
Hourly flow rate (vph)	0	210	6	0	0	0	0	0	24	185	127	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	514	526	132	607	507	0	138			24		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	514	526	132	607	507	0	138			24		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	48	99	100	100	100	100			88		
cM capacity (veh/h)	432	402	922	221	416	1091	1459			1572		

Direction, Lane #	EB 1	NB 1	SB 1	SB 2	SB 3
Volume Total	216	24	92	92	138
Volume Left	0	0	92	92	0
Volume Right	6	24	0	0	11
cSH	409	1700	1572	1572	1700
Volume to Capacity	0.53	0.01	0.12	0.12	0.08
Queue Length 95th (ft)	75	0	10	10	0
Control Delay (s)	23.3	0.0	7.6	7.6	0.0
Lane LOS	C		A	A	
Approach Delay (s)	23.3	0.0	4.4		
Approach LOS	C				

Intersection Summary				
Average Delay	11.4			
Intersection Capacity Utilization	27.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	446	41	0	0	0	0	0	0	440	77	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.81	0.81	0.81	0.92	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89
Hourly flow rate (vph)	0	551	51	0	0	0	0	0	0	494	87	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					545							
pX, platoon unblocked												
vC, conflicting volume	0			601			619	576	209	184	601	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			601			619	576	209	184	601	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.8	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.1	3.3
p0 queue free %	100			100			100	100	100	35	78	100
cM capacity (veh/h)	1636			986			312	431	803	761	390	1091

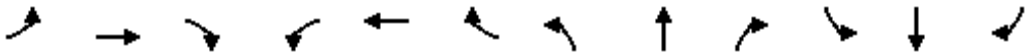
Direction, Lane #	EB 1	EB 2	EB 3	SB 1	SB 2
Volume Total	220	220	161	523	58
Volume Left	0	0	0	494	0
Volume Right	0	0	51	0	0
cSH	1700	1700	1700	723	390
Volume to Capacity	0.13	0.13	0.09	0.72	0.15
Queue Length 95th (ft)	0	0	0	157	13
Control Delay (s)	0.0	0.0	0.0	21.9	15.8
Lane LOS				C	C
Approach Delay (s)	0.0			21.3	
Approach LOS				C	

Intersection Summary				
Average Delay	10.5			
Intersection Capacity Utilization	40.6%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	219	667	0	0	0	0	0	20	136	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.69	0.69	0.69	0.92	0.92	0.92
Hourly flow rate (vph)	241	733	0	0	0	0	0	29	197	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					269							
pX, platoon unblocked												
vC, conflicting volume	0			733			1214	1214	244	937	1214	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			733			1214	1214	244	937	1214	0
tC, single (s)	4.2			4.1			7.5	6.8	7.0	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.2	3.4	3.5	4.0	3.3
p0 queue free %	85			100			100	79	73	100	100	100
cM capacity (veh/h)	1607			881			124	138	741	122	156	1091

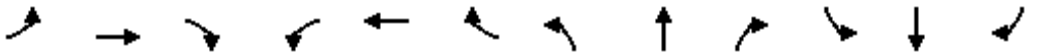
Direction, Lane #	EB 1	EB 2	EB 3	NB 1	NB 2
Volume Total	387	293	293	19	207
Volume Left	241	0	0	0	0
Volume Right	0	0	0	0	197
cSH	1607	1700	1700	138	616
Volume to Capacity	0.15	0.17	0.17	0.14	0.34
Queue Length 95th (ft)	13	0	0	12	37
Control Delay (s)	5.2	0.0	0.0	35.2	13.8
Lane LOS	A			E	B
Approach Delay (s)	2.1			15.6	
Approach LOS				C	

Intersection Summary			
Average Delay	4.6		
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		



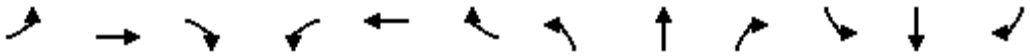
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	180	589	34	0	0	0	0	115	57	31	100	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			0.95	
Frt		0.99						0.95			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		4997						3363			3498	
Flt Permitted		0.99						1.00			0.87	
Satd. Flow (perm)		4997						3363			3063	
Peak-hour factor, PHF	0.82	0.82	0.82	0.92	0.92	0.92	0.88	0.88	0.88	0.78	0.78	0.78
Adj. Flow (vph)	220	718	41	0	0	0	0	131	65	40	128	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	46	0	0	0	0
Lane Group Flow (vph)	0	972	0	0	0	0	0	150	0	0	168	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						8			4	
Permitted Phases	2									4		
Actuated Green, G (s)		26.6						14.7			14.7	
Effective Green, g (s)		26.6						14.7			14.7	
Actuated g/C Ratio		0.54						0.30			0.30	
Clearance Time (s)		4.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		2696						1002			913	
v/s Ratio Prot								0.04				
v/s Ratio Perm		0.19									c0.05	
v/c Ratio		0.36						0.15			0.18	
Uniform Delay, d1		6.5						12.7			12.8	
Progression Factor		1.00						1.00			1.00	
Incremental Delay, d2		0.1						0.1			0.1	
Delay (s)		6.6						12.8			12.9	
Level of Service		A						B			B	
Approach Delay (s)		6.6			0.0			12.8			12.9	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	49.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



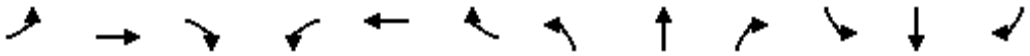
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	493	51	0	0	0	0	13	8	108	97	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2	4.2					4.2	4.2	4.6	4.6	
Lane Util. Factor	1.00	0.95	1.00					1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583					1863	1583	1770	1863	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.75	1.00	
Satd. Flow (perm)	1770	3539	1583					1863	1583	1390	1863	
Peak-hour factor, PHF	0.96	0.96	0.96	0.92	0.92	0.92	0.75	0.75	0.75	0.80	0.80	0.80
Adj. Flow (vph)	54	514	53	0	0	0	0	17	11	135	121	0
RTOR Reduction (vph)	0	0	24	0	0	0	0	0	10	0	0	0
Lane Group Flow (vph)	54	514	29	0	0	0	0	17	1	135	121	0
Turn Type	Perm	NA	Perm					NA	Perm	Perm	NA	
Protected Phases		8						1			2	
Permitted Phases	8		8						1	2		
Actuated Green, G (s)	32.8	32.8	32.8					4.4	4.4	9.8	9.8	
Effective Green, g (s)	32.8	32.8	32.8					4.4	4.4	9.8	9.8	
Actuated g/C Ratio	0.55	0.55	0.55					0.07	0.07	0.16	0.16	
Clearance Time (s)	4.2	4.2	4.2					4.2	4.2	4.6	4.6	
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0	3.8	3.8	
Lane Grp Cap (vph)	967	1934	865					136	116	227	304	
v/s Ratio Prot		c0.15						c0.01			0.06	
v/s Ratio Perm	0.03		0.02						0.00	c0.10		
v/c Ratio	0.06	0.27	0.03					0.12	0.01	0.59	0.40	
Uniform Delay, d1	6.4	7.2	6.3					26.0	25.8	23.3	22.5	
Progression Factor	1.00	1.00	1.00					1.00	1.00	1.16	1.15	
Incremental Delay, d2	0.1	0.3	0.1					0.2	0.0	4.5	1.1	
Delay (s)	6.5	7.5	6.4					26.2	25.8	31.5	26.9	
Level of Service	A	A	A					C	C	C	C	
Approach Delay (s)		7.4			0.0			26.0			29.3	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



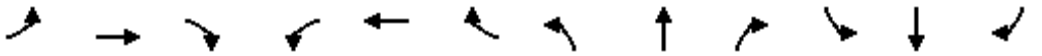
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	426	100	0	0	0	0	273	44	18	195	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2						4.2		4.2	4.2	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		0.97						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		3433						1828		1770	1863	
Flt Permitted		1.00						1.00		0.49	1.00	
Satd. Flow (perm)		3433						1828		910	1863	
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.91	0.91	0.91	0.87	0.87	0.87
Adj. Flow (vph)	49	501	118	0	0	0	0	300	48	21	224	0
RTOR Reduction (vph)	0	25	0	0	0	0	0	9	0	0	0	0
Lane Group Flow (vph)	0	643	0	0	0	0	0	339	0	21	224	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		8						6			2	
Permitted Phases	8									2		
Actuated Green, G (s)		22.1						27.0		27.0	27.0	
Effective Green, g (s)		22.1						27.0		27.0	27.0	
Actuated g/C Ratio		0.38						0.47		0.47	0.47	
Clearance Time (s)		4.2						4.2		4.2	4.2	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		1319						858		427	874	
v/s Ratio Prot								c0.19			0.12	
v/s Ratio Perm		0.19								0.02		
v/c Ratio		0.49						0.40		0.05	0.26	
Uniform Delay, d1		13.4						9.9		8.3	9.2	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.3						0.3		0.0	0.2	
Delay (s)		13.7						10.2		8.3	9.4	
Level of Service		B						B		A	A	
Approach Delay (s)		13.7			0.0			10.2			9.3	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	57.5	Sum of lost time (s)	8.4
Intersection Capacity Utilization	75.5%	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	340	71	0	0	0	0	0	0	45	256	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.2							4.2	4.2	
Lane Util. Factor		0.95	1.00							1.00	0.95	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		3574	1615							1805	3505	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		3574	1615							1805	3505	
Peak-hour factor, PHF	0.87	0.87	0.87	0.92	0.92	0.92	0.92	0.92	0.92	0.82	0.82	0.82
Adj. Flow (vph)	0	391	82	0	0	0	0	0	0	55	312	0
RTOR Reduction (vph)	0	0	40	0	0	0	0	0	0	36	0	0
Lane Group Flow (vph)	0	391	42	0	0	0	0	0	0	19	312	0
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%
Turn Type		NA	Perm							Perm	NA	
Protected Phases		8									2	
Permitted Phases			8							2		
Actuated Green, G (s)		30.8	30.8							20.8	20.8	
Effective Green, g (s)		30.8	30.8							20.8	20.8	
Actuated g/C Ratio		0.51	0.51							0.35	0.35	
Clearance Time (s)		4.2	4.2							4.2	4.2	
Lane Grp Cap (vph)		1834	829							625	1215	
v/s Ratio Prot		c0.11									c0.09	
v/s Ratio Perm			0.03							0.01		
v/c Ratio		0.21	0.05							0.03	0.26	
Uniform Delay, d1		8.0	7.3							12.9	14.1	
Progression Factor		1.00	1.00							2.41	1.49	
Incremental Delay, d2		0.3	0.1							0.1	0.5	
Delay (s)		8.2	7.4							31.3	21.5	
Level of Service		A	A							C	C	
Approach Delay (s)		8.1			0.0			0.0			23.0	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	29.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



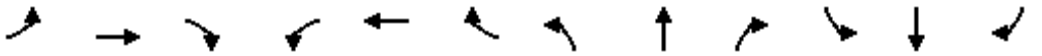
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	183	81	0	0	0	13	0	192	23	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2				4.2		4.2				
Lane Util. Factor	0.95	0.95				1.00		0.95				
Frt	1.00	1.00				0.86		0.98				
Flt Protected	0.95	0.98				1.00		1.00				
Satd. Flow (prot)	1649	1732				1644		3446				
Flt Permitted	0.95	0.98				1.00		1.00				
Satd. Flow (perm)	1649	1732				1644		3446				
Peak-hour factor, PHF	0.91	0.91	0.91	0.36	0.36	0.36	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	201	89	0	0	0	36	0	221	26	0	0	0
RTOR Reduction (vph)	82	33	0	0	0	21	0	15	0	0	0	0
Lane Group Flow (vph)	61	114	0	0	0	15	0	232	0	0	0	0
Heavy Vehicles (%)	4%	1%	0%	0%	0%	0%	0%	3%	4%	0%	0%	0%
Turn Type	Perm	NA				Perm		NA				
Protected Phases		2						4				
Permitted Phases	2					2						
Actuated Green, G (s)	25.0	25.0				25.0		25.0				
Effective Green, g (s)	25.0	25.0				25.0		25.0				
Actuated g/C Ratio	0.43	0.43				0.43		0.43				
Clearance Time (s)	4.2	4.2				4.2		4.2				
Lane Grp Cap (vph)	705	741				703		1475				
v/s Ratio Prot								c0.07				
v/s Ratio Perm	0.04	0.07				0.01						
v/c Ratio	0.09	0.15				0.02		0.16				
Uniform Delay, d1	9.9	10.2				9.6		10.2				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	0.2	0.4				0.1		0.2				
Delay (s)	10.2	10.7				9.7		10.5				
Level of Service	B	B				A		B				
Approach Delay (s)		10.4			9.7			10.5			0.0	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.16		
Actuated Cycle Length (s)	58.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	48.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	277	13	9	361	32	17	14	11	37	34	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.1	4.2		4.1	4.2	4.2	4.2	4.2		4.2	4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95	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	0.93		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1736	3422		1805	3471	1429	1805	1705		1671	1792	1538
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.73	1.00		0.73	1.00	1.00
Satd. Flow (perm)	1736	3422		1805	3471	1429	1386	1705		1291	1792	1538
Peak-hour factor, PHF	1.00	1.00	1.00	0.87	0.87	0.87	0.70	0.70	0.70	0.80	0.80	0.80
Adj. Flow (vph)	85	277	13	10	415	37	24	20	16	46	42	48
RTOR Reduction (vph)	0	2	0	0	0	23	0	14	0	0	0	42
Lane Group Flow (vph)	85	288	0	10	415	14	24	22	0	46	42	6
Heavy Vehicles (%)	4%	5%	0%	0%	4%	13%	0%	0%	9%	8%	6%	5%
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	3	8		7	4			6			2	
Permitted Phases						4	6			2		2
Actuated Green, G (s)	25.2	52.9		1.2	28.9	28.9	9.4	9.4		9.4	9.4	9.4
Effective Green, g (s)	25.2	52.9		1.2	28.9	28.9	9.4	9.4		9.4	9.4	9.4
Actuated g/C Ratio	0.33	0.70		0.02	0.38	0.38	0.12	0.12		0.12	0.12	0.12
Clearance Time (s)	4.1	4.2		4.1	4.2	4.2	4.2	4.2		4.2	4.2	4.2
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	575	2381		28	1319	543	171	210		159	221	190
v/s Ratio Prot	c0.05	0.08		c0.01	c0.12			0.01			0.02	
v/s Ratio Perm						0.01	0.02			c0.04		0.00
v/c Ratio	0.15	0.12		0.36	0.31	0.03	0.14	0.10		0.29	0.19	0.03
Uniform Delay, d1	17.9	3.8		37.0	16.6	14.7	29.7	29.6		30.3	29.9	29.3
Progression Factor	1.00	1.00		1.01	0.84	2.08	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.5	0.1		2.8	0.6	0.1	0.5	0.3		1.4	0.6	0.1
Delay (s)	18.4	3.9		40.2	14.6	30.8	30.2	29.9		31.6	30.5	29.4
Level of Service	B	A		D	B	C	C	C		C	C	C
Approach Delay (s)		7.2			16.4			30.0			30.5	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	33.8%	ICU Level of Service	A
Analysis Period (min)	15		

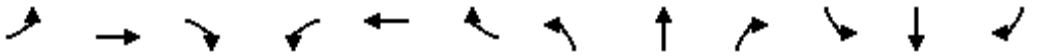
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	390	31	93	454	53	40	25	39	55	21	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.98		1.00	0.91		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3469		1770	3365		1770	1694		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	3469		1770	3365		1770	1694		1770	1863	1583
Peak-hour factor, PHF	0.74	0.74	0.74	0.87	0.87	0.87	0.84	0.84	0.84	0.83	0.83	0.83
Adj. Flow (vph)	15	527	42	107	522	61	48	30	46	66	25	12
RTOR Reduction (vph)	0	5	0	0	6	0	0	41	0	0	0	10
Lane Group Flow (vph)	15	564	0	107	577	0	48	35	0	66	25	2
Heavy Vehicles (%)	2%	3%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	1.3	37.3		7.9	43.9		4.6	8.0		6.4	9.8	9.8
Effective Green, g (s)	1.3	37.3		7.9	43.9		4.6	8.0		6.4	9.8	9.8
Actuated g/C Ratio	0.02	0.49		0.10	0.58		0.06	0.11		0.08	0.13	0.13
Clearance Time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	4.2
Vehicle Extension (s)	2.0	6.0		2.0	6.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	30	1702		183	1943		107	178		149	240	204
v/s Ratio Prot	0.01	c0.16		c0.06	0.17		0.03	c0.02		c0.04	0.01	
v/s Ratio Perm												0.00
v/c Ratio	0.50	0.33		0.58	0.30		0.45	0.20		0.44	0.10	0.01
Uniform Delay, d1	37.0	11.8		32.5	8.2		34.5	31.1		33.1	29.2	28.9
Progression Factor	1.07	0.98		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.7	0.5		3.1	0.4		1.1	0.2		0.8	0.1	0.0
Delay (s)	44.2	12.0		35.5	8.6		35.6	31.3		33.9	29.3	28.9
Level of Service	D	B		D	A		D	C		C	C	C
Approach Delay (s)		12.9			12.8			32.9			32.2	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	16.4
Intersection Capacity Utilization	37.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	415	64	37	309	0	0	0	0	467	118	291
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		5.2	5.2					4.7	4.7	4.7
Lane Util. Factor		0.95		1.00	0.95					1.00	1.00	1.00
Frt		0.98		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (prot)		3439		1770	3406					1770	1863	1583
Flt Permitted		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (perm)		3439		1770	3406					1770	1863	1583
Peak-hour factor, PHF	0.74	0.74	0.74	0.87	0.87	0.87	0.92	0.92	0.92	0.76	0.76	0.76
Adj. Flow (vph)	0	561	86	43	355	0	0	0	0	614	155	383
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	0	188
Lane Group Flow (vph)	0	638	0	43	355	0	0	0	0	614	155	195
Heavy Vehicles (%)	2%	3%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Actuated Green, G (s)		24.3		4.4	33.9					45.2	45.2	45.2
Effective Green, g (s)		24.3		4.4	33.9					45.2	45.2	45.2
Actuated g/C Ratio		0.27		0.05	0.38					0.51	0.51	0.51
Clearance Time (s)		5.2		5.2	5.2					4.7	4.7	4.7
Vehicle Extension (s)		0.2		2.0	0.2					6.2	6.2	6.2
Lane Grp Cap (vph)		938		87	1297					898	946	803
v/s Ratio Prot		c0.19		c0.02	0.10						0.08	
v/s Ratio Perm										c0.35		0.12
v/c Ratio		0.68		0.49	0.27					0.68	0.16	0.24
Uniform Delay, d1		28.9		41.2	19.0					16.5	11.8	12.3
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		4.0		1.6	0.5					3.4	0.2	0.5
Delay (s)		32.8		42.8	19.6					19.9	12.0	12.8
Level of Service		C		D	B					B	B	B
Approach Delay (s)		32.8			22.1			0.0			16.5	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	22.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	89.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	82.3%	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)	178	704	0	0	255	120	91	156	385	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	5.2			5.2	5.2		5.4	5.4			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.95	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.98	1.00			
Satd. Flow (prot)	1770	3505			3406	1583		3475	1583			
Flt Permitted	0.95	1.00			1.00	1.00		0.98	1.00			
Satd. Flow (perm)	1770	3505			3406	1583		3475	1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.92	0.92	0.92	0.91	0.91	0.91	0.92	0.92	0.92
Adj. Flow (vph)	187	741	0	0	277	130	100	171	423	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	77	0	0	167	0	0	0
Lane Group Flow (vph)	187	741	0	0	277	53	0	271	256	0	0	0
Heavy Vehicles (%)	2%	3%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	13.1	48.5			31.2	31.2		16.9	16.9			
Effective Green, g (s)	13.1	48.5			31.2	31.2		16.9	16.9			
Actuated g/C Ratio	0.17	0.64			0.41	0.41		0.22	0.22			
Clearance Time (s)	4.2	5.2			5.2	5.2		5.4	5.4			
Vehicle Extension (s)	3.5	0.2			0.2	0.2		5.0	5.0			
Lane Grp Cap (vph)	305	2236			1398	649		772	352			
v/s Ratio Prot	c0.11	c0.21			0.08							
v/s Ratio Perm						0.03		0.08	c0.16			
v/c Ratio	0.61	0.33			0.20	0.08		0.35	0.73			
Uniform Delay, d1	29.1	6.3			14.4	13.7		24.9	27.4			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	3.8	0.4			0.3	0.2		0.6	8.9			
Delay (s)	32.9	6.7			14.7	13.9		25.5	36.3			
Level of Service	C	A			B	B		C	D			
Approach Delay (s)		12.0			14.4			32.1			0.0	
Approach LOS		B			B			C			A	

Intersection Summary			
HCM 2000 Control Delay	19.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	14.8
Intersection Capacity Utilization	82.3%	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)	178	876	30	9	265	38	30	37	15	23	37	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frt	1.00	1.00		1.00	0.98			0.97			0.91	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1770	3486		1805	3280			3362			3008	
Flt Permitted	0.54	1.00		0.24	1.00			0.81			0.89	
Satd. Flow (perm)	1008	3486		454	3280			2759			2704	
Peak-hour factor, PHF	0.88	0.88	0.88	0.86	0.86	0.86	0.88	0.88	0.88	0.86	0.86	0.86
Adj. Flow (vph)	202	995	34	10	308	44	34	42	17	27	43	93
RTOR Reduction (vph)	0	2	0	0	12	0	0	13	0	0	73	0
Lane Group Flow (vph)	202	1027	0	10	340	0	0	80	0	0	90	0
Heavy Vehicles (%)	2%	3%	4%	0%	8%	8%	7%	0%	0%	13%	8%	8%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	21.0	21.0		21.0	21.0			8.6			8.6	
Effective Green, g (s)	21.0	21.0		21.0	21.0			8.6			8.6	
Actuated g/C Ratio	0.52	0.52		0.52	0.52			0.21			0.21	
Clearance Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	529	1830		238	1722			593			581	
v/s Ratio Prot		c0.29			0.10							
v/s Ratio Perm	0.20			0.02				0.03			c0.03	
v/c Ratio	0.38	0.56		0.04	0.20			0.13			0.15	
Uniform Delay, d1	5.6	6.4		4.6	5.0			12.7			12.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.5	0.4		0.1	0.1			0.1			0.1	
Delay (s)	6.1	6.8		4.7	5.1			12.8			12.9	
Level of Service	A	A		A	A			B			B	
Approach Delay (s)		6.7			5.1			12.8			12.9	
Approach LOS		A			A			B			B	

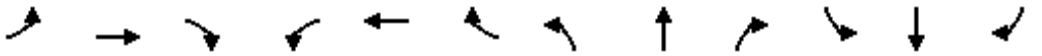
Intersection Summary			
HCM 2000 Control Delay	7.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	53.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	822	24	0	259	22	17	95	29	33	97	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2			5.2	5.2		5.5		5.5	5.5	
Lane Util. Factor		0.95			0.95	1.00		0.95		1.00	0.95	
Frt		1.00			1.00	0.85		0.97		1.00	0.95	
Flt Protected		1.00			1.00	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		3491			3539	1583		3408		1770	3371	
Flt Permitted		1.00			1.00	1.00		0.91		0.64	1.00	
Satd. Flow (perm)		3491			3539	1583		3130		1186	3371	
Peak-hour factor, PHF	0.78	0.78	0.78	0.90	0.90	0.90	0.77	0.77	0.77	0.75	0.75	0.75
Adj. Flow (vph)	0	1054	31	0	288	24	22	123	38	44	129	60
RTOR Reduction (vph)	0	2	0	0	0	14	0	8	0	0	33	0
Lane Group Flow (vph)	0	1083	0	0	288	10	0	175	0	44	156	0
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA			NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases						2	4			4		
Actuated Green, G (s)		31.3			31.3	31.3		34.0		34.0	34.0	
Effective Green, g (s)		31.3			31.3	31.3		34.0		34.0	34.0	
Actuated g/C Ratio		0.41			0.41	0.41		0.45		0.45	0.45	
Clearance Time (s)		5.2			5.2	5.2		5.5		5.5	5.5	
Vehicle Extension (s)		5.0			5.0	5.0		2.0		2.0	2.0	
Lane Grp Cap (vph)		1437			1457	651		1400		530	1508	
v/s Ratio Prot		c0.31			0.08						0.05	
v/s Ratio Perm						0.01		c0.06		0.04		
v/c Ratio		0.75			0.20	0.02		0.12		0.08	0.10	
Uniform Delay, d1		19.1			14.3	13.2		12.3		12.1	12.2	
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		3.7			0.3	0.0		0.0		0.0	0.0	
Delay (s)		22.8			14.6	13.3		12.3		12.1	12.2	
Level of Service		C			B	B		B		B	B	
Approach Delay (s)		22.8			14.5			12.3			12.2	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	10.7
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	122	406	92	63	205	58	99	254	183	69	152	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	1.00	
Frt	1.00	0.97		1.00	0.97		1.00	0.94		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3441		1770	3449		1770	3317		1770	1786	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3441		1770	3449		1770	3317		1770	1786	
Peak-hour factor, PHF	0.96	0.96	0.96	0.80	0.80	0.80	0.85	0.85	0.85	0.84	0.84	0.84
Adj. Flow (vph)	127	423	96	79	256	72	116	299	215	82	181	68
RTOR Reduction (vph)	0	18	0	0	24	0	0	92	0	0	10	0
Lane Group Flow (vph)	127	501	0	79	304	0	116	422	0	82	239	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	13.3	29.2		9.1	25.0		12.6	47.3		9.2	43.9	
Effective Green, g (s)	13.3	29.2		9.1	25.0		12.6	47.3		9.2	43.9	
Actuated g/C Ratio	0.12	0.26		0.08	0.22		0.11	0.42		0.08	0.39	
Clearance Time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Vehicle Extension (s)	3.0	5.0		3.0	5.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	210	897		143	769		199	1400		145	700	
v/s Ratio Prot	c0.07	c0.15		0.04	0.09		c0.07	c0.13		0.05	c0.13	
v/s Ratio Perm												
v/c Ratio	0.60	0.56		0.55	0.40		0.58	0.30		0.57	0.34	
Uniform Delay, d1	46.9	35.8		49.5	37.1		47.2	21.4		49.5	23.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.9	1.3		4.6	0.7		4.3	0.6		5.0	1.3	
Delay (s)	51.7	37.1		54.0	37.8		51.5	22.0		54.5	25.2	
Level of Service	D	D		D	D		D	C		D	C	
Approach Delay (s)		40.0			40.9			27.4			32.5	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	35.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	112.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	51.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	371	182	113	392	0	0	0	0	39	247	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		5.2	5.2					5.2	5.2	
Lane Util. Factor		0.95		1.00	0.95					1.00	0.95	
Frt		0.95		1.00	1.00					1.00	0.98	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3365		1770	3574					1770	3464	
Flt Permitted		1.00		0.36	1.00					0.95	1.00	
Satd. Flow (perm)		3365		668	3574					1770	3464	
Peak-hour factor, PHF	0.77	0.77	0.77	0.94	0.94	0.94	0.92	0.92	0.92	0.80	0.80	0.80
Adj. Flow (vph)	0	482	236	120	417	0	0	0	0	49	309	51
RTOR Reduction (vph)	0	102	0	0	0	0	0	0	0	0	22	0
Lane Group Flow (vph)	0	616	0	120	417	0	0	0	0	49	338	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		8			4						2	
Permitted Phases				4						2		
Actuated Green, G (s)		14.6		14.6	14.6					12.1	12.1	
Effective Green, g (s)		14.6		14.6	14.6					12.1	12.1	
Actuated g/C Ratio		0.39		0.39	0.39					0.33	0.33	
Clearance Time (s)		5.2		5.2	5.2					5.2	5.2	
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	
Lane Grp Cap (vph)		1324		262	1406					577	1129	
v/s Ratio Prot		c0.18			0.12						c0.10	
v/s Ratio Perm				0.18						0.03		
v/c Ratio		0.46		0.46	0.30					0.08	0.30	
Uniform Delay, d1		8.4		8.3	7.7					8.7	9.3	
Progression Factor		1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2		0.3		1.3	0.1					0.1	0.1	
Delay (s)		8.6		9.6	7.8					8.7	9.5	
Level of Service		A		A	A					A	A	
Approach Delay (s)		8.6			8.2			0.0			9.4	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	37.1	Sum of lost time (s)	10.4
Intersection Capacity Utilization	43.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	252	85	97	449	40	42	54	33	41	82	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2		5.2	5.2		5.2	5.2	5.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.99		1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1421	3445		1770	3533		1805	1791		1719	1743	1482
Flt Permitted	0.46	1.00		0.53	1.00		0.69	1.00		0.69	1.00	1.00
Satd. Flow (perm)	691	3445		991	3533		1306	1791		1256	1743	1482
Peak-hour factor, PHF	0.90	0.90	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.76	0.76	0.76
Adj. Flow (vph)	29	280	89	102	473	42	47	60	37	54	108	14
RTOR Reduction (vph)	0	37	0	0	8	0	0	30	0	0	0	11
Lane Group Flow (vph)	29	332	0	102	507	0	47	67	0	54	108	3
Heavy Vehicles (%)	27%	1%	1%	2%	1%	0%	0%	0%	0%	5%	9%	9%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	18.6	18.6		18.6	18.6		6.8	6.8		6.8	6.8	6.8
Effective Green, g (s)	18.6	18.6		18.6	18.6		6.8	6.8		6.8	6.8	6.8
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.19	0.19		0.19	0.19	0.19
Clearance Time (s)	5.2	5.2		5.2	5.2		5.2	5.2		5.2	5.2	5.2
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	359	1789		514	1835		248	340		238	331	281
v/s Ratio Prot		0.10			c0.14			0.04			c0.06	
v/s Ratio Perm	0.04			0.10			0.04			0.04		0.00
v/c Ratio	0.08	0.19		0.20	0.28		0.19	0.20		0.23	0.33	0.01
Uniform Delay, d1	4.3	4.6		4.6	4.8		12.2	12.2		12.3	12.5	11.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.1	0.1		0.3	0.1		0.5	0.4		0.7	0.8	0.0
Delay (s)	4.4	4.6		4.9	4.9		12.7	12.6		12.9	13.3	11.8
Level of Service	A	A		A	A		B	B		B	B	B
Approach Delay (s)		4.6			4.9			12.6			13.1	
Approach LOS		A			A			B			B	

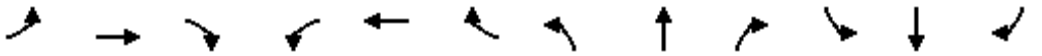
Intersection Summary			
HCM 2000 Control Delay	6.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	35.8	Sum of lost time (s)	10.4
Intersection Capacity Utilization	42.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	285	0	0	550	96	46	136	33	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2			5.2			5.0				
Lane Util. Factor	1.00	0.95			0.95			0.95				
Frt	1.00	1.00			0.98			0.98				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1770	3574			3460			3421				
Flt Permitted	0.36	1.00			1.00			0.99				
Satd. Flow (perm)	665	3574			3460			3421				
Peak-hour factor, PHF	0.97	0.97	0.97	0.88	0.88	0.88	0.75	0.75	0.75	0.92	0.92	0.92
Adj. Flow (vph)	37	294	0	0	625	109	61	181	44	0	0	0
RTOR Reduction (vph)	0	0	0	0	22	0	0	26	0	0	0	0
Lane Group Flow (vph)	37	294	0	0	712	0	0	260	0	0	0	0
Heavy Vehicles (%)	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		8			4			6				
Permitted Phases	8						6					
Actuated Green, G (s)	17.1	17.1			17.1			11.5				
Effective Green, g (s)	17.1	17.1			17.1			11.5				
Actuated g/C Ratio	0.44	0.44			0.44			0.30				
Clearance Time (s)	5.2	5.2			5.2			5.0				
Vehicle Extension (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	293	1575			1524			1013				
v/s Ratio Prot		0.08			c0.21							
v/s Ratio Perm	0.06							0.08				
v/c Ratio	0.13	0.19			0.47			0.26				
Uniform Delay, d1	6.4	6.6			7.6			10.4				
Progression Factor	1.00	1.00			1.00			1.00				
Incremental Delay, d2	0.3	0.1			0.3			0.2				
Delay (s)	6.7	6.7			8.0			10.6				
Level of Service	A	A			A			B				
Approach Delay (s)		6.7			8.0			10.6			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	8.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	38.8	Sum of lost time (s)	10.2
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



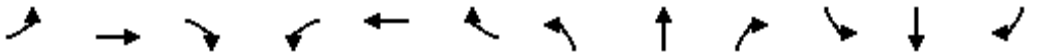
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	69	6	453	106	367	31	144	197	234	261	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6	5.6	5.0	5.6	5.6	5.0	5.6	5.6
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1841		1681	1716	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1841		1681	1716	1583	1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.59	0.59	0.59	0.87	0.87	0.87	0.89	0.89	0.89	0.88	0.88	0.88
Adj. Flow (vph)	14	117	10	521	122	422	35	162	221	266	297	19
RTOR Reduction (vph)	0	3	0	0	0	303	0	0	126	0	0	13
Lane Group Flow (vph)	14	124	0	318	325	119	35	162	95	266	297	6
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	8	8		4	4		1	6	4	5	2	
Permitted Phases						4			6			2
Actuated Green, G (s)	13.5	13.5		27.2	27.2	27.2	4.1	14.4	41.6	19.8	30.1	30.1
Effective Green, g (s)	13.5	13.5		27.2	27.2	27.2	4.1	14.4	41.6	19.8	30.1	30.1
Actuated g/C Ratio	0.14	0.14		0.28	0.28	0.28	0.04	0.15	0.43	0.20	0.31	0.31
Clearance Time (s)	5.6	5.6		5.6	5.6	5.6	5.0	5.6	5.6	5.0	5.6	5.6
Vehicle Extension (s)	3.0	3.0		3.5	3.5	3.5	2.0	4.8	3.5	3.0	4.8	4.8
Lane Grp Cap (vph)	247	257		472	482	445	75	527	772	362	1101	492
v/s Ratio Prot	0.01	c0.07		0.19	c0.19		0.02	0.05	0.03	c0.15	c0.08	
v/s Ratio Perm						0.07			0.03			0.00
v/c Ratio	0.06	0.48		0.67	0.67	0.27	0.47	0.31	0.12	0.73	0.27	0.01
Uniform Delay, d1	36.1	38.4		30.8	30.8	27.0	45.2	36.7	16.6	36.0	25.0	23.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	1.4		3.9	3.9	0.4	1.7	0.6	0.1	7.5	0.3	0.0
Delay (s)	36.2	39.8		34.7	34.7	27.4	46.9	37.3	16.7	43.5	25.3	23.0
Level of Service	D	D		C	C	C	D	D	B	D	C	C
Approach Delay (s)		39.5			31.8			27.2			33.6	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	31.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	96.7	Sum of lost time (s)	21.8
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	85	12	17	91	22	6	114	36	17	100	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.98		1.00	0.97			0.97			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1770	1828		1770	1808			3411			3485	
Flt Permitted	0.68	1.00		0.68	1.00			0.95			0.92	
Satd. Flow (perm)	1269	1828		1275	1808			3240			3212	
Peak-hour factor, PHF	0.86	0.86	0.86	0.96	0.96	0.96	0.83	0.83	0.83	0.78	0.78	0.78
Adj. Flow (vph)	15	99	14	18	95	23	7	137	43	22	128	9
RTOR Reduction (vph)	0	9	0	0	15	0	0	21	0	0	4	0
Lane Group Flow (vph)	15	104	0	18	103	0	0	166	0	0	155	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	19.0	19.0		19.0	19.0			30.0			30.0	
Effective Green, g (s)	19.0	19.0		19.0	19.0			30.0			30.0	
Actuated g/C Ratio	0.33	0.33		0.33	0.33			0.52			0.52	
Clearance Time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Lane Grp Cap (vph)	420	605		422	598			1693			1678	
v/s Ratio Prot		c0.06			0.06							
v/s Ratio Perm	0.01			0.01				c0.05			0.05	
v/c Ratio	0.04	0.17		0.04	0.17			0.10			0.09	
Uniform Delay, d1	13.0	13.6		13.0	13.6			6.9			6.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.2	0.6		0.2	0.6			0.1			0.1	
Delay (s)	13.2	14.2		13.2	14.2			7.0			7.0	
Level of Service	B	B		B	B			A			A	
Approach Delay (s)		14.1			14.1			7.0			7.0	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.13		
Actuated Cycle Length (s)	57.4	Sum of lost time (s)	8.4
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	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	98	12	39	110	75	15	134	24	200	194	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.94		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3480		1770	3324		1770	1820		1770	1863	1583
Flt Permitted	0.61	1.00		0.67	1.00		0.57	1.00		0.64	1.00	1.00
Satd. Flow (perm)	1144	3480		1241	3324		1053	1820		1197	1863	1583
Peak-hour factor, PHF	0.82	0.82	0.82	0.84	0.84	0.84	0.87	0.87	0.87	0.74	0.74	0.74
Adj. Flow (vph)	38	120	15	46	131	89	17	154	28	270	262	23
RTOR Reduction (vph)	0	8	0	0	50	0	0	11	0	0	0	14
Lane Group Flow (vph)	38	127	0	46	170	0	17	171	0	270	262	9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	25.0	25.0		25.0	25.0		23.0	23.0		23.0	23.0	23.0
Effective Green, g (s)	25.0	25.0		25.0	25.0		23.0	23.0		23.0	23.0	23.0
Actuated g/C Ratio	0.44	0.44		0.44	0.44		0.41	0.41		0.41	0.41	0.41
Clearance Time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	504	1534		547	1465		427	738		485	755	642
v/s Ratio Prot		0.04			c0.05			0.09			0.14	
v/s Ratio Perm	0.03			0.04			0.02			c0.23		0.01
v/c Ratio	0.08	0.08		0.08	0.12		0.04	0.23		0.56	0.35	0.01
Uniform Delay, d1	9.2	9.2		9.2	9.3		10.2	11.1		12.9	11.7	10.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	0.1		0.3	0.2		0.2	0.7		4.6	1.3	0.0
Delay (s)	9.5	9.3		9.5	9.5		10.4	11.8		17.5	12.9	10.1
Level of Service	A	A		A	A		B	B		B	B	B
Approach Delay (s)		9.3			9.5			11.7			15.0	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	56.7	Sum of lost time (s)	8.7
Intersection Capacity Utilization	75.1%	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)	71	215	21	37	164	156	49	377	54	85	108	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	1.00	
Frt	1.00	0.99		1.00	0.93		1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3493		1770	3297		1770	3472		1770	1772	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3493		1770	3297		1770	3472		1770	1772	
Peak-hour factor, PHF	0.74	0.74	0.74	0.74	0.74	0.74	0.89	0.89	0.89	0.96	0.96	0.96
Adj. Flow (vph)	96	291	28	50	222	211	55	424	61	89	112	54
RTOR Reduction (vph)	0	6	0	0	145	0	0	11	0	0	16	0
Lane Group Flow (vph)	96	313	0	50	288	0	55	474	0	89	150	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	7.0	26.4		4.3	23.7		4.4	21.5		6.8	23.9	
Effective Green, g (s)	7.0	26.4		4.3	23.7		4.4	21.5		6.8	23.9	
Actuated g/C Ratio	0.09	0.35		0.06	0.31		0.06	0.29		0.09	0.32	
Clearance Time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	5.0		2.0	5.0	
Lane Grp Cap (vph)	164	1223		100	1036		103	990		159	561	
v/s Ratio Prot	c0.05	c0.09		0.03	0.09		0.03	c0.14		c0.05	0.08	
v/s Ratio Perm												
v/c Ratio	0.59	0.26		0.50	0.28		0.53	0.48		0.56	0.27	
Uniform Delay, d1	32.8	17.5		34.5	19.4		34.5	22.3		32.9	19.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.4	0.2		1.4	0.3		2.6	0.8		2.4	0.5	
Delay (s)	36.2	17.7		35.9	19.7		37.2	23.1		35.3	19.7	
Level of Service	D	B		D	B		D	C		D	B	
Approach Delay (s)		22.0			21.4			24.5			25.2	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	75.4	Sum of lost time (s)	16.4
Intersection Capacity Utilization	44.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	281	56	77	552	0	0	0	0	129	183	180
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	
Lane Util. Factor		0.95		1.00	0.95					1.00	0.95	
Frt		0.98		1.00	1.00					1.00	0.93	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3451		1770	3574					1770	3276	
Flt Permitted		1.00		0.52	1.00					0.95	1.00	
Satd. Flow (perm)		3451		969	3574					1770	3276	
Peak-hour factor, PHF	0.86	0.86	0.86	0.91	0.91	0.91	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	0	327	65	85	607	0	0	0	0	152	215	212
RTOR Reduction (vph)	0	31	0	0	0	0	0	0	0	0	136	0
Lane Group Flow (vph)	0	361	0	85	607	0	0	0	0	152	291	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			4						2	
Permitted Phases				4						2		
Actuated Green, G (s)		26.0		26.0	26.0					19.0	19.0	
Effective Green, g (s)		26.0		26.0	26.0					19.0	19.0	
Actuated g/C Ratio		0.48		0.48	0.48					0.35	0.35	
Clearance Time (s)		4.5		4.5	4.5					4.5	4.5	
Lane Grp Cap (vph)		1661		466	1720					622	1152	
v/s Ratio Prot		0.10			c0.17						c0.09	
v/s Ratio Perm				0.09						0.09		
v/c Ratio		0.22		0.18	0.35					0.24	0.25	
Uniform Delay, d1		8.1		8.0	8.7					12.4	12.4	
Progression Factor		1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2		0.3		0.9	0.6					0.9	0.5	
Delay (s)		8.4		8.8	9.3					13.3	13.0	
Level of Service		A		A	A					B	B	
Approach Delay (s)		8.4			9.3			0.0			13.1	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	54.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

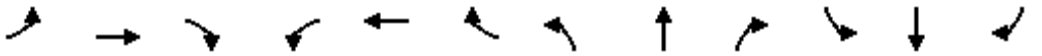
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	208	34	124	820	49	35	104	24	61	98	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.2			4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	1.00
Frt	1.00	0.98		1.00	0.99			0.98			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	1.00
Satd. Flow (prot)	1736	3388		1805	3546			1831			1843	1404
Flt Permitted	0.21	1.00		0.56	1.00			0.92			0.84	1.00
Satd. Flow (perm)	381	3388		1066	3546			1695			1570	1404
Peak-hour factor, PHF	0.77	0.77	0.77	0.88	0.88	0.88	0.89	0.89	0.89	0.86	0.86	0.86
Adj. Flow (vph)	31	270	44	141	932	56	39	117	27	71	114	56
RTOR Reduction (vph)	0	22	0	0	7	0	0	11	0	0	0	35
Lane Group Flow (vph)	31	292	0	141	981	0	0	172	0	0	185	21
Heavy Vehicles (%)	4%	5%	0%	0%	1%	0%	0%	1%	0%	3%	0%	15%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	29.0	29.0		29.0	29.0			22.0			22.0	22.0
Effective Green, g (s)	29.0	29.0		29.0	29.0			22.0			22.0	22.0
Actuated g/C Ratio	0.49	0.49		0.49	0.49			0.37			0.37	0.37
Clearance Time (s)	4.2	4.2		4.2	4.2			4.2			4.2	4.2
Lane Grp Cap (vph)	186	1654		520	1731			627			581	520
v/s Ratio Prot		0.09			c0.28							
v/s Ratio Perm	0.08			0.13				0.10			c0.12	0.01
v/c Ratio	0.17	0.18		0.27	0.57			0.27			0.32	0.04
Uniform Delay, d1	8.5	8.5		9.0	10.8			13.1			13.3	12.0
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	1.9	0.2		1.3	1.4			1.1			1.4	0.1
Delay (s)	10.4	8.7		10.2	12.1			14.2			14.8	12.1
Level of Service	B	A		B	B			B			B	B
Approach Delay (s)		8.9			11.9			14.2			14.2	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	77.2%	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)	41	252	0	0	962	103	31	148	43	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2			5.2	5.2	5.0	5.0	5.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1770	3438			3539	1583	1770	1863	1583			
Flt Permitted	0.19	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	346	3438			3539	1583	1770	1863	1583			
Peak-hour factor, PHF	0.83	0.83	0.83	0.80	0.80	0.80	0.82	0.82	0.82	0.92	0.92	0.92
Adj. Flow (vph)	49	304	0	0	1202	129	38	180	52	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	34	0	0	41	0	0	0
Lane Group Flow (vph)	49	304	0	0	1202	95	38	180	11	0	0	0
Heavy Vehicles (%)	2%	5%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		8			4			6				
Permitted Phases	8					4	6		6			
Actuated Green, G (s)	35.3	35.3			35.3	35.3	12.9	12.9	12.9			
Effective Green, g (s)	35.3	35.3			35.3	35.3	12.9	12.9	12.9			
Actuated g/C Ratio	0.60	0.60			0.60	0.60	0.22	0.22	0.22			
Clearance Time (s)	5.2	5.2			5.2	5.2	5.0	5.0	5.0			
Vehicle Extension (s)	5.0	5.0			5.0	5.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	209	2078			2139	956	390	411	349			
v/s Ratio Prot		0.09			c0.34			c0.10				
v/s Ratio Perm	0.14					0.06	0.02		0.01			
v/c Ratio	0.23	0.15			0.56	0.10	0.10	0.44	0.03			
Uniform Delay, d1	5.3	5.0			6.9	4.9	18.1	19.6	17.9			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	1.2	0.1			0.6	0.1	0.1	0.7	0.0			
Delay (s)	6.5	5.1			7.5	5.0	18.2	20.4	17.9			
Level of Service	A	A			A	A	B	C	B			
Approach Delay (s)		5.3			7.2			19.6			0.0	
Approach LOS		A			A			B			A	

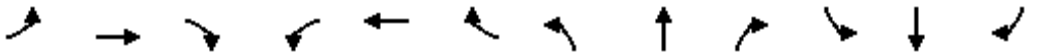
Intersection Summary			
HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	58.4	Sum of lost time (s)	10.2
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



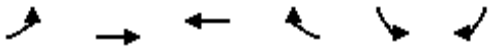
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	285	42	169	1151	160	0	0	0	30	79	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6						4.6	4.6
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frt	1.00	0.98		1.00	0.98						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.99	1.00
Satd. Flow (prot)	1770	3471		1770	3474						1837	1583
Flt Permitted	0.13	1.00		0.54	1.00						0.99	1.00
Satd. Flow (perm)	244	3471		1012	3474						1837	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.92	0.92	0.92	0.74	0.74	0.74
Adj. Flow (vph)	22	303	45	194	1323	184	0	0	0	41	107	51
RTOR Reduction (vph)	0	7	0	0	7	0	0	0	0	0	0	34
Lane Group Flow (vph)	22	341	0	194	1500	0	0	0	0	0	148	17
Turn Type	Perm	NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases	2			6						4		4
Actuated Green, G (s)	57.2	57.2		57.2	57.2						14.3	14.3
Effective Green, g (s)	57.2	57.2		57.2	57.2						14.3	14.3
Actuated g/C Ratio	0.70	0.70		0.70	0.70						0.18	0.18
Clearance Time (s)	5.6	5.6		5.6	5.6						4.6	4.6
Vehicle Extension (s)	4.1	4.1		4.1	4.1						3.0	3.0
Lane Grp Cap (vph)	170	2430		708	2432						321	277
v/s Ratio Prot		0.10			c0.43							
v/s Ratio Perm	0.09			0.19							0.08	0.01
v/c Ratio	0.13	0.14		0.27	0.62						0.46	0.06
Uniform Delay, d1	4.0	4.1		4.5	6.5						30.2	28.1
Progression Factor	1.00	1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2	1.6	0.1		0.3	0.6						1.1	0.1
Delay (s)	5.6	4.2		4.8	7.0						31.3	28.2
Level of Service	A	A		A	A						C	C
Approach Delay (s)		4.3			6.8			0.0			30.5	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	81.7	Sum of lost time (s)	10.2
Intersection Capacity Utilization	65.1%	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	489	5	0	302	0	0	0	0	434	856	819
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6			4.6					4.6	4.6	4.6
Lane Util. Factor		0.95			0.95					0.91	0.91	1.00
Frt		1.00			1.00					1.00	1.00	0.85
Flt Protected		1.00			1.00					0.95	1.00	1.00
Satd. Flow (prot)		3534			3539					1610	3382	1583
Flt Permitted		1.00			1.00					0.95	1.00	1.00
Satd. Flow (perm)		3534			3539					1610	3382	1583
Peak-hour factor, PHF	0.86	0.86	0.86	0.72	0.72	0.72	0.92	0.92	0.92	0.91	0.91	0.91
Adj. Flow (vph)	0	569	6	0	419	0	0	0	0	477	941	900
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	0	0	0	427
Lane Group Flow (vph)	0	574	0	0	419	0	0	0	0	429	989	473
Turn Type		NA			NA					Split	NA	custom
Protected Phases		2			6					4	4	
Permitted Phases												7
Actuated Green, G (s)		65.4			65.4					65.4	65.4	49.8
Effective Green, g (s)		65.4			65.4					65.4	65.4	49.8
Actuated g/C Ratio		0.47			0.47					0.47	0.47	0.36
Clearance Time (s)		4.6			4.6					4.6	4.6	4.6
Vehicle Extension (s)		4.1			3.5					4.0	4.0	4.0
Lane Grp Cap (vph)		1650			1653					752	1579	563
v/s Ratio Prot		c0.16			0.12					0.27	c0.29	
v/s Ratio Perm												c0.30
v/c Ratio		0.35			0.25					0.57	0.63	0.84
Uniform Delay, d1		23.7			22.5					27.1	28.1	41.4
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		0.6			0.4					1.3	0.9	11.1
Delay (s)		24.3			22.9					28.4	29.0	52.5
Level of Service		C			C					C	C	D
Approach Delay (s)		24.3			22.9			0.0			38.0	
Approach LOS		C			C			A			D	

Intersection Summary			
HCM 2000 Control Delay	33.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



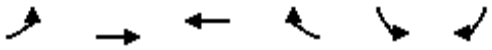
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	0	315	619	0	0	861
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6			4.6
Lane Util. Factor		0.95	0.95			0.88
Frt		1.00	1.00			0.85
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		3539	3539			2787
Flt Permitted		1.00	1.00			1.00
Satd. Flow (perm)		3539	3539			2787
Peak-hour factor, PHF	0.89	0.89	0.77	0.77	0.85	0.85
Adj. Flow (vph)	0	354	804	0	0	1013
RTOR Reduction (vph)	0	0	0	0	0	7
Lane Group Flow (vph)	0	354	804	0	0	1006
Turn Type		NA	NA			Prot
Protected Phases		2 8	6			4
Permitted Phases						
Actuated Green, G (s)		35.2	35.2			34.6
Effective Green, g (s)		35.2	35.2			34.6
Actuated g/C Ratio		0.45	0.45			0.44
Clearance Time (s)			4.6			4.6
Vehicle Extension (s)			3.8			4.0
Lane Grp Cap (vph)		1576	1576			1220
v/s Ratio Prot		0.10	c0.23			c0.36
v/s Ratio Perm						
v/c Ratio		0.22	0.51			0.82
Uniform Delay, d1		13.5	15.7			19.5
Progression Factor		1.00	1.00			1.00
Incremental Delay, d2		0.0	1.2			4.9
Delay (s)		13.5	16.9			24.4
Level of Service		B	B			C
Approach Delay (s)		13.5	16.9		24.4	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



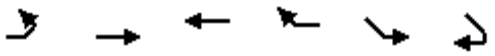
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	131	184	0	407	212	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0		4.6	4.6	4.6
Lane Util. Factor	0.91	0.91		0.95	1.00	1.00
Frt	0.94	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3188	1441		3539	1770	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3188	1441		3539	1770	1583
Peak-hour factor, PHF	0.83	0.83	0.75	0.75	0.82	0.82
Adj. Flow (vph)	158	222	0	543	259	206
RTOR Reduction (vph)	74	0	0	0	0	82
Lane Group Flow (vph)	188	118	0	543	259	124
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	6			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	23.6	82.8		23.6	50.0	50.0
Effective Green, g (s)	23.6	82.8		23.6	50.0	50.0
Actuated g/C Ratio	0.29	1.00		0.29	0.60	0.60
Clearance Time (s)	4.6			4.6	4.6	4.6
Vehicle Extension (s)	3.0			3.0	2.0	2.0
Lane Grp Cap (vph)	908	1441		1008	1068	955
v/s Ratio Prot	0.06			c0.15	c0.15	
v/s Ratio Perm		0.08				0.08
v/c Ratio	0.21	0.08		0.54	0.24	0.13
Uniform Delay, d1	22.5	0.0		25.0	7.6	7.1
Progression Factor	1.00	1.00		1.12	1.00	1.00
Incremental Delay, d2	0.1	0.1		0.5	0.0	0.0
Delay (s)	22.6	0.1		28.5	7.7	7.1
Level of Service	C	A		C	A	A
Approach Delay (s)	15.6			28.5	7.4	
Approach LOS	B			C	A	

Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	82.8	Sum of lost time (s)	13.4
Intersection Capacity Utilization	35.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



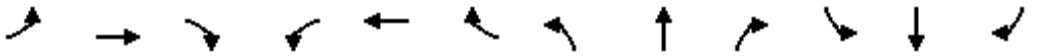
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	386	537	302	531	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.6		
Lane Util. Factor	1.00	0.95	0.95	1.00		
Frt	1.00	1.00	1.00	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	1770	3539	3539	1583		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	1770	3539	3539	1583		
Peak-hour factor, PHF	0.84	0.84	0.79	0.79	0.92	0.92
Adj. Flow (vph)	460	639	382	672	0	0
RTOR Reduction (vph)	0	0	0	180	0	0
Lane Group Flow (vph)	460	639	382	492	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	2 3	Free	4			
Permitted Phases				4		
Actuated Green, G (s)	35.6	82.8	38.4	38.4		
Effective Green, g (s)	35.6	82.8	38.4	38.4		
Actuated g/C Ratio	0.43	1.00	0.46	0.46		
Clearance Time (s)			4.6	4.6		
Vehicle Extension (s)			4.1	4.1		
Lane Grp Cap (vph)	761	3539	1641	734		
v/s Ratio Prot	c0.26	0.18	0.11			
v/s Ratio Perm				c0.31		
v/c Ratio	0.60	0.18	0.23	0.67		
Uniform Delay, d1	18.2	0.0	13.3	17.3		
Progression Factor	1.00	1.00	0.71	0.41		
Incremental Delay, d2	0.9	0.1	0.1	2.4		
Delay (s)	19.1	0.1	9.6	9.5		
Level of Service	B	A	A	A		
Approach Delay (s)		8.1	9.5		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	82.8	Sum of lost time (s)	13.4
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



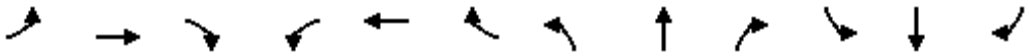
Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (vph)	0	300	407	833	537	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6	
Lane Util. Factor		0.95	0.91	0.91	0.97	
Frt		1.00	0.92	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3539	3133	1441	3433	
Flt Permitted		1.00	1.00	1.00	0.95	
Satd. Flow (perm)		3539	3133	1441	3433	
Peak-hour factor, PHF	0.83	0.83	0.78	0.78	0.86	0.86
Adj. Flow (vph)	0	361	522	1068	624	0
RTOR Reduction (vph)	0	0	158	0	0	0
Lane Group Flow (vph)	0	361	898	534	624	0
Turn Type		NA	NA	Free	Prot	
Protected Phases		4	4		2 3	
Permitted Phases				Free		
Actuated Green, G (s)		38.4	38.4	82.8	35.6	
Effective Green, g (s)		38.4	38.4	82.8	35.6	
Actuated g/C Ratio		0.46	0.46	1.00	0.43	
Clearance Time (s)		4.6	4.6			
Vehicle Extension (s)		4.1	4.1			
Lane Grp Cap (vph)		1641	1452	1441	1476	
v/s Ratio Prot		0.10	c0.29		c0.18	
v/s Ratio Perm				c0.37		
v/c Ratio		0.22	0.62	0.37	0.42	
Uniform Delay, d1		13.3	16.7	0.0	16.4	
Progression Factor		1.36	1.00	1.00	1.00	
Incremental Delay, d2		0.1	0.9	0.7	0.1	
Delay (s)		18.1	17.6	0.7	16.5	
Level of Service		B	B	A	B	
Approach Delay (s)		18.1	12.0		16.5	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	82.8	Sum of lost time (s)	13.4
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



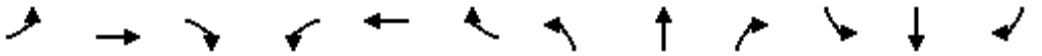
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	104	591	88	93	701	52	388	274	27	186	283	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9	4.9	4.0	4.9	4.9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3502		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3502		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.92	0.92	0.85	0.85	0.85	0.69	0.69	0.69
Adj. Flow (vph)	112	635	95	101	762	57	456	322	32	270	410	239
RTOR Reduction (vph)	0	0	59	0	4	0	0	0	23	0	0	186
Lane Group Flow (vph)	112	635	36	101	815	0	456	322	9	270	410	53
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8						6			2
Actuated Green, G (s)	7.8	29.3	29.3	7.6	29.1		17.0	25.3	25.3	12.1	20.4	20.4
Effective Green, g (s)	7.8	29.3	29.3	7.6	29.1		17.0	25.3	25.3	12.1	20.4	20.4
Actuated g/C Ratio	0.08	0.32	0.32	0.08	0.32		0.18	0.27	0.27	0.13	0.22	0.22
Clearance Time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9	4.9	4.0	4.9	4.9
Vehicle Extension (s)	2.0	5.0	5.0	2.0	5.2		2.0	5.0	5.0	2.0	5.2	5.2
Lane Grp Cap (vph)	290	1125	503	283	1106		633	972	434	451	783	350
v/s Ratio Prot	c0.03	0.18		0.03	c0.23		c0.13	0.09		0.08	c0.12	
v/s Ratio Perm			0.02						0.01			0.03
v/c Ratio	0.39	0.56	0.07	0.36	0.74		0.72	0.33	0.02	0.60	0.52	0.15
Uniform Delay, d1	39.9	26.1	21.9	39.9	28.1		35.3	26.7	24.4	37.7	31.6	28.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	1.1	0.1	0.3	3.2		3.4	0.4	0.0	1.4	1.3	0.5
Delay (s)	40.2	27.2	22.0	40.2	31.3		38.7	27.1	24.4	39.1	32.9	29.3
Level of Service	D	C	C	D	C		D	C	C	D	C	C
Approach Delay (s)		28.3			32.3			33.5			33.8	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	32.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	92.1	Sum of lost time (s)	17.8
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	5	0	146	0	174	14	84	102	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.2		4.2	4.2	4.0	4.2	
Lane Util. Factor					1.00	1.00		1.00	1.00	1.00	1.00	
Frt					1.00	0.85		1.00	0.85	1.00	1.00	
Flt Protected					0.95	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)					1770	1583		1863	1583	1770	1863	
Flt Permitted					0.95	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)					1770	1583		1863	1583	1770	1863	
Peak-hour factor, PHF	0.85	0.85	0.85	0.59	0.85	0.59	0.85	0.80	0.80	0.80	0.80	0.85
Adj. Flow (vph)	0	0	0	8	0	247	0	218	18	105	128	0
RTOR Reduction (vph)	0	0	0	0	0	177	0	0	12	0	0	0
Lane Group Flow (vph)	0	0	0	0	8	70	0	218	6	105	128	0
Turn Type				Prot	NA	custom		NA	Perm	Prot	NA	
Protected Phases				4	8			6		5	2	
Permitted Phases						4	6		6			
Actuated Green, G (s)					13.4	13.2		16.3	16.3	4.9	25.2	
Effective Green, g (s)					13.4	13.2		16.3	16.3	4.9	25.2	
Actuated g/C Ratio					0.29	0.28		0.35	0.35	0.10	0.54	
Clearance Time (s)					4.0	4.2		4.2	4.2	4.0	4.2	
Vehicle Extension (s)					3.0	2.0		4.8	4.8	3.0	4.8	
Lane Grp Cap (vph)					506	446		648	551	185	1003	
v/s Ratio Prot					0.00			c0.12		c0.06	0.07	
v/s Ratio Perm					0.00	c0.04			0.00			
v/c Ratio					0.02	0.16		0.34	0.01	0.57	0.13	
Uniform Delay, d1					12.0	12.6		11.3	10.0	19.9	5.4	
Progression Factor					1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2					0.0	0.1		0.6	0.0	4.0	0.1	
Delay (s)					12.0	12.7		11.9	10.0	23.9	5.5	
Level of Service					B	B		B	A	C	A	
Approach Delay (s)		0.0			12.7			11.7			13.8	
Approach LOS		A			B			B			B	

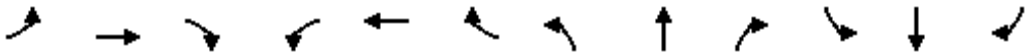
Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	46.8	Sum of lost time (s)	12.4
Intersection Capacity Utilization	28.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	53	5	6	28	16	31	455	54	5	102	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Util. Factor	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	0.95		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1838		1770	1762		1770	1833		1770	1863	1583
Flt Permitted	0.72	1.00		0.70	1.00		0.67	1.00		0.29	1.00	1.00
Satd. Flow (perm)	1332	1838		1313	1762		1253	1833		537	1863	1583
Peak-hour factor, PHF	0.73	0.73	0.73	0.69	0.69	0.69	0.89	0.89	0.89	0.77	0.77	0.77
Adj. Flow (vph)	29	73	7	9	41	23	35	511	61	6	132	17
RTOR Reduction (vph)	0	4	0	0	14	0	0	7	0	0	0	9
Lane Group Flow (vph)	29	76	0	9	50	0	35	565	0	6	132	8
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	22.8	22.8		22.8	22.8		28.8	28.8		28.8	28.8	28.8
Effective Green, g (s)	22.8	22.8		22.8	22.8		28.8	28.8		28.8	28.8	28.8
Actuated g/C Ratio	0.38	0.38		0.38	0.38		0.48	0.48		0.48	0.48	0.48
Clearance Time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Grp Cap (vph)	506	698		498	669		601	879		257	894	759
v/s Ratio Prot		c0.04			0.03			c0.31			0.07	
v/s Ratio Perm	0.02			0.01			0.03			0.01		0.01
v/c Ratio	0.06	0.11		0.02	0.07		0.06	0.64		0.02	0.15	0.01
Uniform Delay, d1	11.8	12.0		11.6	11.9		8.3	11.7		8.2	8.7	8.2
Progression Factor	0.84	0.81		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	0.3		0.1	0.2		0.2	3.6		0.2	0.3	0.0
Delay (s)	10.1	10.1		11.7	12.1		8.5	15.3		8.4	9.1	8.2
Level of Service	B	B		B	B		A	B		A	A	A
Approach Delay (s)		10.1			12.0			14.9			9.0	
Approach LOS		B			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	72.2%	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)	27	564	10	7	548	78	1	20	19	58	9	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8		4.8	4.8		4.8	4.8	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.98		1.00	0.93		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	3593		1805	3394		1687	1735		1805	1635	
Flt Permitted	0.29	1.00		0.30	1.00		0.71	1.00		0.72	1.00	
Satd. Flow (perm)	533	3593		561	3394		1254	1735		1366	1635	
Peak-hour factor, PHF	0.70	0.70	0.70	0.75	0.75	0.75	0.67	0.67	0.67	0.74	0.74	0.74
Adj. Flow (vph)	39	806	14	9	731	104	1	30	28	78	12	66
RTOR Reduction (vph)	0	2	0	0	19	0	0	19	0	0	45	0
Lane Group Flow (vph)	39	818	0	9	816	0	1	39	0	78	33	0
Heavy Vehicles (%)	3%	0%	12%	0%	5%	0%	7%	3%	0%	0%	4%	1%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	31.2	31.2		31.2	31.2		19.2	19.2		19.2	19.2	
Effective Green, g (s)	31.2	31.2		31.2	31.2		19.2	19.2		19.2	19.2	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.32	0.32		0.32	0.32	
Clearance Time (s)	4.8	4.8		4.8	4.8		4.8	4.8		4.8	4.8	
Lane Grp Cap (vph)	277	1868		291	1764		401	555		437	523	
v/s Ratio Prot		0.23			c0.24			0.02			0.02	
v/s Ratio Perm	0.07			0.02			0.00			c0.06		
v/c Ratio	0.14	0.44		0.03	0.46		0.00	0.07		0.18	0.06	
Uniform Delay, d1	7.5	9.0		7.0	9.1		13.9	14.2		14.7	14.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.1	0.7		0.2	0.9		0.0	0.2		0.9	0.2	
Delay (s)	8.5	9.7		7.2	10.0		13.9	14.4		15.6	14.4	
Level of Service	A	A		A	A		B	B		B	B	
Approach Delay (s)		9.6			9.9			14.4			15.0	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	585	56	44	304	0	0	0	0	294	0	329
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		4.2	5.2					4.2	4.2	
Lane Util. Factor		0.95		1.00	0.95					1.00	1.00	
Frt		0.99		1.00	1.00					1.00	0.85	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3493		1770	3438					1770	1583	
Flt Permitted		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (perm)		3493		1770	3438					1770	1583	
Peak-hour factor, PHF	0.72	0.72	0.72	0.78	0.78	0.78	0.92	0.92	0.92	0.83	0.83	0.83
Adj. Flow (vph)	0	812	78	56	390	0	0	0	0	354	0	396
RTOR Reduction (vph)	0	6	0	0	0	0	0	0	0	0	264	0
Lane Group Flow (vph)	0	884	0	56	390	0	0	0	0	354	132	0
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Prot	NA					Split	NA	
Protected Phases		2		1	6					4	4	
Permitted Phases												
Actuated Green, G (s)		22.8		4.1	31.1					20.3	20.3	
Effective Green, g (s)		22.8		4.1	31.1					20.3	20.3	
Actuated g/C Ratio		0.38		0.07	0.51					0.33	0.33	
Clearance Time (s)		5.2		4.2	5.2					4.2	4.2	
Vehicle Extension (s)		0.2		2.0	0.2					5.0	5.0	
Lane Grp Cap (vph)		1309		119	1758					590	528	
v/s Ratio Prot		c0.25		c0.03	0.11					c0.20	0.08	
v/s Ratio Perm												
v/c Ratio		0.68		0.47	0.22					0.60	0.25	
Uniform Delay, d1		15.9		27.3	8.2					16.9	14.7	
Progression Factor		1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2		1.1		1.1	0.0					2.5	0.5	
Delay (s)		17.0		28.4	8.2					19.4	15.2	
Level of Service		B		C	A					B	B	
Approach Delay (s)		17.0			10.7			0.0			17.2	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	60.8	Sum of lost time (s)	13.6
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	326	553	0	0	317	105	31	7	83	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.76	0.76	0.76	0.86	0.86	0.86	0.70	0.70	0.70	0.92	0.92	0.92
Hourly flow rate (vph)	429	728	0	0	369	122	44	10	119	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									23			
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		276			1067							
pX, platoon unblocked												
vC, conflicting volume	491			728			1770	2076	364	1656	2015	245
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	491			728			1770	2076	364	1656	2015	245
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	60			100			0	68	81	100	100	100
cM capacity (veh/h)	1069			872			36	32	633	28	35	755

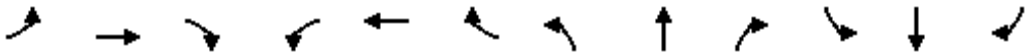
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	429	364	364	246	245	173
Volume Left	429	0	0	0	0	44
Volume Right	0	0	0	0	122	119
cSH	1069	1700	1700	1700	1700	113
Volume to Capacity	0.40	0.21	0.21	0.14	0.14	1.53
Queue Length 95th (ft)	49	0	0	0	0	316
Control Delay (s)	10.6	0.0	0.0	0.0	0.0	170.4
Lane LOS	B					F
Approach Delay (s)	3.9			0.0		170.4
Approach LOS						F

Intersection Summary				
Average Delay	18.7			
Intersection Capacity Utilization	55.9%	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 (veh/h)	41	592	3	1	381	25	14	10	13	21	4	27
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.71	0.71	0.71	0.84	0.84	0.84	0.93	0.93	0.93	0.81	0.81	0.81
Hourly flow rate (vph)	58	834	4	1	454	30	15	11	14	26	5	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		546			797							
pX, platoon unblocked												
vC, conflicting volume	483			838			1216	1437	419	1023	1424	242
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	483			838			1216	1437	419	1023	1424	242
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			100			88	91	98	84	96	96
cM capacity (veh/h)	1076			792			122	125	583	166	127	759

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	475	421	228	257	40	64
Volume Left	58	0	1	0	15	26
Volume Right	0	4	0	30	14	33
cSH	1076	1700	792	1700	170	269
Volume to Capacity	0.05	0.25	0.00	0.15	0.23	0.24
Queue Length 95th (ft)	4	0	0	0	22	23
Control Delay (s)	1.6	0.0	0.1	0.0	32.5	22.6
Lane LOS	A		A		D	C
Approach Delay (s)	0.8		0.0		32.5	22.6
Approach LOS					D	C

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	43.0%	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)	29	548	32	38	353	36	36	107	72	24	74	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.94		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3510		1770	3399		1770	1750		1770	1830	
Flt Permitted	0.50	1.00		0.35	1.00		0.68	1.00		0.60	1.00	
Satd. Flow (perm)	936	3510		644	3399		1276	1750		1119	1830	
Peak-hour factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91	0.88	0.88	0.88	0.75	0.75	0.75
Adj. Flow (vph)	36	677	40	42	388	40	41	122	82	32	99	13
RTOR Reduction (vph)	0	7	0	0	13	0	0	41	0	0	8	0
Lane Group Flow (vph)	36	710	0	42	415	0	41	163	0	32	104	0
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			4	
Permitted Phases	6			2			4			4		
Actuated Green, G (s)	33.1	33.1		33.1	33.1		18.2	18.2		18.2	18.2	
Effective Green, g (s)	33.1	33.1		33.1	33.1		18.2	18.2		18.2	18.2	
Actuated g/C Ratio	0.55	0.55		0.55	0.55		0.30	0.30		0.30	0.30	
Clearance Time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)	516	1936		355	1875		387	530		339	555	
v/s Ratio Prot		c0.20			0.12			c0.09			0.06	
v/s Ratio Perm	0.04			0.07			0.03			0.03		
v/c Ratio	0.07	0.37		0.12	0.22		0.11	0.31		0.09	0.19	
Uniform Delay, d1	6.3	7.6		6.5	6.9		15.0	16.1		15.0	15.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	0.5		0.7	0.3		0.3	0.7		0.3	0.3	
Delay (s)	6.5	8.1		7.1	7.1		15.3	16.7		15.2	15.8	
Level of Service	A	A		A	A		B	B		B	B	
Approach Delay (s)		8.0			7.1			16.5			15.7	
Approach LOS		A			A			B			B	

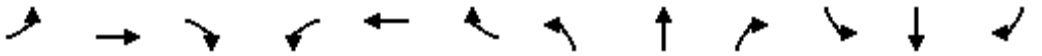
Intersection Summary			
HCM 2000 Control Delay	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.7
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	71	563	10	3	381	104	17	9	2	30	16	29
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.92	0.92	0.92	0.78	0.78	0.78	0.89	0.89	0.89
Hourly flow rate (vph)	86	678	12	3	414	113	22	12	3	34	18	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		681			400							
pX, platoon unblocked	0.98			0.96			0.97	0.97	0.96	0.97	0.97	0.98
vC, conflicting volume	527			690			1111	1389	345	996	1339	264
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	465			594			944	1230	235	826	1178	195
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			100			87	93	100	85	89	96
cM capacity (veh/h)	1066			939			174	157	736	226	169	793

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	86	452	238	3	276	251	36	84
Volume Left	86	0	0	3	0	0	22	34
Volume Right	0	0	12	0	0	113	3	33
cSH	1066	1700	1700	939	1700	1700	178	284
Volume to Capacity	0.08	0.27	0.14	0.00	0.16	0.15	0.20	0.30
Queue Length 95th (ft)	7	0	0	0	0	0	18	30
Control Delay (s)	8.7	0.0	0.0	8.8	0.0	0.0	30.3	22.9
Lane LOS	A			A			D	C
Approach Delay (s)	1.0			0.1			30.3	22.9
Approach LOS							D	C

Intersection Summary				
Average Delay	2.7			
Intersection Capacity Utilization	33.8%	ICU Level of Service	A	
Analysis Period (min)	15			

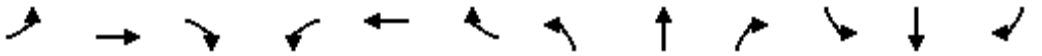


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	449	107	14	417	13	60	38	5	17	17	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		5.6	5.6		5.6	5.6	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	0.95	
Frt	1.00	0.97		1.00	1.00		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3437		1770	3523		1770	1828		1770	3441	
Flt Permitted	0.95	1.00		0.95	1.00		0.74	1.00		0.72	1.00	
Satd. Flow (perm)	1770	3437		1770	3523		1376	1828		1341	3441	
Peak-hour factor, PHF	0.79	0.79	0.79	0.95	0.95	0.95	0.76	0.76	0.76	0.79	0.79	0.79
Adj. Flow (vph)	9	568	135	15	439	14	79	50	7	22	22	5
RTOR Reduction (vph)	0	11	0	0	1	0	0	6	0	0	4	0
Lane Group Flow (vph)	9	692	0	15	452	0	79	51	0	22	23	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	1.2	63.6		1.3	63.7		11.3	11.3		11.3	11.3	
Effective Green, g (s)	1.2	63.6		1.3	63.7		11.3	11.3		11.3	11.3	
Actuated g/C Ratio	0.01	0.71		0.01	0.71		0.13	0.13		0.13	0.13	
Clearance Time (s)	4.0	4.2		4.0	4.2		5.6	5.6		5.6	5.6	
Vehicle Extension (s)	2.0	4.0		2.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	23	2428		25	2493		172	229		168	432	
v/s Ratio Prot	0.01	c0.20		c0.01	0.13			0.03			0.01	
v/s Ratio Perm							c0.06			0.02		
v/c Ratio	0.39	0.28		0.60	0.18		0.46	0.22		0.13	0.05	
Uniform Delay, d1	44.0	4.8		44.1	4.4		36.5	35.4		35.0	34.6	
Progression Factor	1.00	1.00		1.02	0.45		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.0	0.3		22.4	0.2		2.6	0.7		0.5	0.1	
Delay (s)	48.0	5.1		67.6	2.1		39.2	36.1		35.5	34.7	
Level of Service	D	A		E	A		D	D		D	C	
Approach Delay (s)		5.7			4.2			37.9			35.0	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.8
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

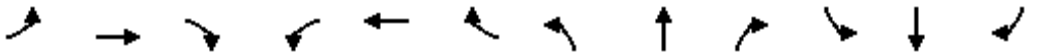
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	377	42	38	246	71	199	465	137	17	50	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.2	4.2	4.2	4.2	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3486		1770	3420		1770	1863	1583	1770	1752	
Flt Permitted	0.95	1.00		0.95	1.00		0.69	1.00	1.00	0.18	1.00	
Satd. Flow (perm)	1770	3486		1770	3420		1283	1863	1583	332	1752	
Peak-hour factor, PHF	0.80	0.80	0.80	0.83	0.83	0.83	0.87	0.87	0.87	0.78	0.78	0.78
Adj. Flow (vph)	69	471	52	46	296	86	229	534	157	22	64	42
RTOR Reduction (vph)	0	8	0	0	27	0	0	0	73	0	27	0
Lane Group Flow (vph)	69	515	0	46	355	0	229	534	84	22	79	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	8.7	40.3		4.8	36.4		32.5	32.5	32.5	32.5	32.5	
Effective Green, g (s)	8.7	40.3		4.8	36.4		32.5	32.5	32.5	32.5	32.5	
Actuated g/C Ratio	0.10	0.45		0.05	0.40		0.36	0.36	0.36	0.36	0.36	
Clearance Time (s)	4.0	4.2		4.0	4.2		4.2	4.2	4.2	4.2	4.2	
Vehicle Extension (s)	2.0	4.8		2.0	4.8		4.8	4.8	4.8	4.8	4.8	
Lane Grp Cap (vph)	171	1560		94	1383		463	672	571	119	632	
v/s Ratio Prot	0.04	c0.15		c0.03	0.10			c0.29			0.05	
v/s Ratio Perm							0.18		0.05	0.07		
v/c Ratio	0.40	0.33		0.49	0.26		0.49	0.79	0.15	0.18	0.13	
Uniform Delay, d1	38.2	16.1		41.4	17.8		22.4	25.8	19.4	19.7	19.2	
Progression Factor	0.85	0.75		0.70	0.98		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.6	0.6		1.4	0.4		1.6	7.3	0.2	1.5	0.2	
Delay (s)	33.0	12.7		30.3	17.8		24.0	33.1	19.6	21.1	19.4	
Level of Service	C	B		C	B		C	C	B	C	B	
Approach Delay (s)		15.1			19.2			28.5			19.7	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	22.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



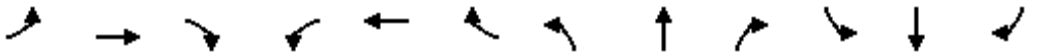
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	387	20	24	405	0	0	0	0	36	183	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		5.2	5.2						5.2	5.2
Lane Util. Factor		0.95		1.00	0.95						0.95	1.00
Frt		0.99		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.99	1.00
Satd. Flow (prot)		3512		1770	3539						3510	1583
Flt Permitted		1.00		0.48	1.00						0.99	1.00
Satd. Flow (perm)		3512		900	3539						3510	1583
Peak-hour factor, PHF	0.83	0.87	0.83	0.83	0.83	0.83	0.92	0.92	0.92	0.84	0.84	0.84
Adj. Flow (vph)	0	445	24	29	488	0	0	0	0	43	218	23
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	0	0	0	17
Lane Group Flow (vph)	0	465	0	29	488	0	0	0	0	0	261	6
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases				6						4		4
Actuated Green, G (s)		57.6		57.6	57.6						22.0	22.0
Effective Green, g (s)		57.6		57.6	57.6						22.0	22.0
Actuated g/C Ratio		0.64		0.64	0.64						0.24	0.24
Clearance Time (s)		5.2		5.2	5.2						5.2	5.2
Vehicle Extension (s)		2.0		2.0	2.0						2.0	2.0
Lane Grp Cap (vph)		2247		576	2264						858	386
v/s Ratio Prot		0.13			c0.14							
v/s Ratio Perm				0.03							0.07	0.00
v/c Ratio		0.21		0.05	0.22						0.30	0.01
Uniform Delay, d1		6.7		6.0	6.8						27.8	25.8
Progression Factor		0.92		0.72	0.70						1.00	1.00
Incremental Delay, d2		0.2		0.2	0.2						0.1	0.0
Delay (s)		6.4		4.5	4.9						27.8	25.8
Level of Service		A		A	A						C	C
Approach Delay (s)		6.4			4.9			0.0			27.7	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	46.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



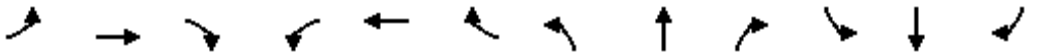
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	339	2	8	340	35	77	355	6	24	12	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2	4.2	4.0	4.2	4.2	4.2	4.2	4.0	4.2	4.2	4.2
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	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	3539	1583	1770	3539	1583	1681	1768	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.75	1.00	1.00	0.18	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1320	1762	1583	342	1863	1583
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.86	0.86	0.86	0.65	0.65	0.65
Adj. Flow (vph)	104	413	2	10	415	43	90	413	7	37	18	25
RTOR Reduction (vph)	0	0	1	0	0	20	0	0	5	0	0	19
Lane Group Flow (vph)	104	413	1	10	415	23	81	422	2	37	18	6
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	pm+ov	Perm	NA	Perm
Protected Phases	3	8		7	4			6	7		2	
Permitted Phases			8			4	6		6	2		2
Actuated Green, G (s)	7.5	53.4	53.4	2.4	48.3	48.3	21.8	21.8	24.2	21.8	21.8	21.8
Effective Green, g (s)	7.5	53.4	53.4	2.4	48.3	48.3	21.8	21.8	24.2	21.8	21.8	21.8
Actuated g/C Ratio	0.08	0.59	0.59	0.03	0.54	0.54	0.24	0.24	0.27	0.24	0.24	0.24
Clearance Time (s)	4.0	4.2	4.2	4.0	4.2	4.2	4.2	4.2	4.0	4.2	4.2	4.2
Vehicle Extension (s)	2.0	4.9	4.9	2.0	4.9	4.9	4.9	4.9	2.0	4.9	4.9	4.9
Lane Grp Cap (vph)	147	2099	939	47	1899	849	319	426	425	82	451	383
v/s Ratio Prot	c0.06	0.12		0.01	c0.12				0.00		0.01	
v/s Ratio Perm			0.00			0.01	0.06	c0.24	0.00	0.11		0.00
v/c Ratio	0.71	0.20	0.00	0.21	0.22	0.03	0.25	0.99	0.00	0.45	0.04	0.02
Uniform Delay, d1	40.2	8.4	7.4	42.9	10.9	9.8	27.5	34.0	24.1	29.0	26.1	25.9
Progression Factor	1.19	0.56	1.00	1.01	0.90	0.70	1.03	1.04	1.15	1.00	1.00	1.00
Incremental Delay, d2	11.8	0.2	0.0	0.8	0.3	0.1	0.8	40.0	0.0	7.8	0.1	0.0
Delay (s)	59.6	4.9	7.4	44.3	10.1	6.9	29.1	75.3	27.6	36.8	26.2	26.0
Level of Service	E	A	A	D	B	A	C	E	C	D	C	C
Approach Delay (s)		15.9			10.5			67.4			31.0	
Approach LOS		B			B			E			C	

Intersection Summary			
HCM 2000 Control Delay	31.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



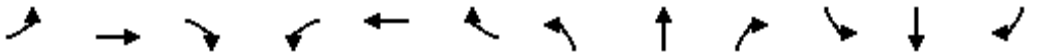
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	338	0	0	368	111	35	100	129	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2			4.2			3.2				
Lane Util. Factor	1.00	0.95			0.95			0.95				
Frt	1.00	1.00			0.97			0.93				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1770	3539			3416			3258				
Flt Permitted	0.45	1.00			1.00			0.99				
Satd. Flow (perm)	831	3539			3416			3258				
Peak-hour factor, PHF	0.81	0.81	0.81	0.87	0.87	0.87	0.69	0.69	0.69	0.92	0.92	0.92
Adj. Flow (vph)	49	417	0	0	423	128	51	145	187	0	0	0
RTOR Reduction (vph)	0	0	0	0	18	0	0	161	0	0	0	0
Lane Group Flow (vph)	49	417	0	0	533	0	0	222	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2			6			8					
Actuated Green, G (s)	69.3	69.3			70.3			12.3				
Effective Green, g (s)	69.3	69.3			70.3			12.3				
Actuated g/C Ratio	0.77	0.77			0.78			0.14				
Clearance Time (s)	5.2	5.2			4.2			3.2				
Vehicle Extension (s)	2.0	2.0			2.0			2.0				
Lane Grp Cap (vph)	639	2725			2668			445				
v/s Ratio Prot		0.12			c0.16							
v/s Ratio Perm	0.06							0.07				
v/c Ratio	0.08	0.15			0.20			0.50				
Uniform Delay, d1	2.5	2.7			2.6			36.0				
Progression Factor	0.39	0.37			1.00			1.00				
Incremental Delay, d2	0.2	0.1			0.2			0.3				
Delay (s)	1.2	1.1			2.7			36.3				
Level of Service	A	A			A			D				
Approach Delay (s)		1.1			2.7			36.3			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	48.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	67	293	4	12	389	153	6	142	5	130	103	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6	4.6	4.6	4.6		4.6	4.6	4.6
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3533		1770	3539	1583	1770	3520		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.63	1.00		0.63	1.00	1.00
Satd. Flow (perm)	1770	3533		1770	3539	1583	1177	3520		1171	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.81	0.81	0.81	0.75	0.75	0.75	0.79	0.79	0.79
Adj. Flow (vph)	73	318	4	15	480	189	8	189	7	165	130	81
RTOR Reduction (vph)	0	1	0	0	0	144	0	3	0	0	0	66
Lane Group Flow (vph)	73	321	0	15	480	45	8	193	0	165	130	15
Turn Type	Prot	NA		Prot	NA	custom	Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases						8	8			4		4
Actuated Green, G (s)	11.9	58.3		1.3	47.7	17.2	17.2	17.2		17.2	17.2	17.2
Effective Green, g (s)	11.9	58.3		1.3	47.7	17.2	17.2	17.2		17.2	17.2	17.2
Actuated g/C Ratio	0.13	0.65		0.01	0.53	0.19	0.19	0.19		0.19	0.19	0.19
Clearance Time (s)	4.0	4.6		4.0	4.6	4.6	4.6	4.6		4.6	4.6	4.6
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	234	2288		25	1875	302	224	672		223	356	302
v/s Ratio Prot	c0.04	0.09		c0.01	c0.14			0.05			0.07	
v/s Ratio Perm						0.03	0.01			c0.14		0.01
v/c Ratio	0.31	0.14		0.60	0.26	0.15	0.04	0.29		0.74	0.37	0.05
Uniform Delay, d1	35.3	6.1		44.1	11.5	30.3	29.6	31.2		34.3	31.7	29.7
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	0.3	0.1		23.2	0.3	0.1	0.0	0.1		10.5	0.2	0.0
Delay (s)	35.6	6.3		67.2	11.8	30.4	29.7	31.2		44.8	31.9	29.8
Level of Service	D	A		E	B	C	C	C		D	C	C
Approach Delay (s)		11.7			18.2			31.2			37.1	
Approach LOS		B			B			C			D	

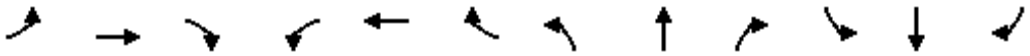
Intersection Summary			
HCM 2000 Control Delay	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	54.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	1	214	100	608	3	105	0	0	21	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.2	4.6	4.6	4.6	4.2	4.6			4.6	4.6
Lane Util. Factor			1.00	1.00	1.00	0.88	1.00	1.00			1.00	1.00
Frt			0.86	1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00	0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1611	1770	1863	2787	1770	1863			1863	1583
Flt Permitted			1.00	0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1611	1770	1863	2787	1770	1863			1863	1583
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.89	0.89	0.89	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1	252	118	715	3	118	0	0	23	13
RTOR Reduction (vph)	0	0	1	0	0	460	0	0	0	0	0	7
Lane Group Flow (vph)	0	0	0	252	118	255	3	118	0	0	23	6
Turn Type			pm+ov	Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1		4		1	6			2	
Permitted Phases			8	4		4						2
Actuated Green, G (s)			33.3	32.1	32.1	32.1	1.2	48.7			43.3	43.3
Effective Green, g (s)			33.3	32.1	32.1	32.1	1.2	48.7			43.3	43.3
Actuated g/C Ratio			0.37	0.36	0.36	0.36	0.01	0.54			0.48	0.48
Clearance Time (s)			4.2	4.6	4.6	4.6	4.2	4.6			4.6	4.6
Vehicle Extension (s)			2.0	5.3	5.3	5.3	2.0	5.1			5.2	5.2
Lane Grp Cap (vph)			596	631	664	994	23	1008			896	761
v/s Ratio Prot			0.00		0.06		0.00	c0.06			0.01	
v/s Ratio Perm			0.00	c0.14		0.09						0.00
v/c Ratio			0.00	0.40	0.18	0.26	0.13	0.12			0.03	0.01
Uniform Delay, d1			17.9	21.7	19.9	20.5	43.9	10.1			12.3	12.2
Progression Factor			1.00	1.00	1.00	1.00	1.00	1.00			1.01	1.00
Incremental Delay, d2			0.0	1.0	0.3	0.3	0.9	0.2			0.1	0.0
Delay (s)			17.9	22.7	20.2	20.8	44.8	10.4			12.5	12.2
Level of Service			B	C	C	C	D	B			B	B
Approach Delay (s)		17.9			21.2			11.2			12.4	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	37.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	137	11	0	0	0	0	0	171	71	94	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.86	0.86	0.86	0.83	0.83	0.83
Hourly flow rate (vph)	0	161	13	0	0	0	0	0	199	86	113	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											1010	
pX, platoon unblocked												
vC, conflicting volume	384	483	113	378	284	0	113			199		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	384	483	113	378	284	0	113			199		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	64	99	100	100	100	100			94		
cM capacity (veh/h)	547	453	940	395	586	1085	1476			1374		

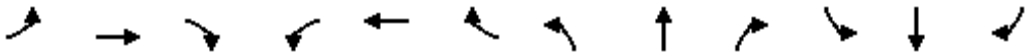
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2
Volume Total	107	67	199	86	113
Volume Left	0	0	0	86	0
Volume Right	0	13	199	0	0
cSH	453	504	1700	1374	1700
Volume to Capacity	0.24	0.13	0.12	0.06	0.07
Queue Length 95th (ft)	23	11	0	5	0
Control Delay (s)	15.4	13.2	0.0	7.8	0.0
Lane LOS	C	B		A	
Approach Delay (s)	14.6		0.0	3.4	
Approach LOS	B				

Intersection Summary				
Average Delay	5.6			
Intersection Capacity Utilization	28.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	170	13	450	3	332	0	0	117	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.71	0.71	0.71	0.86	0.86	0.86	0.83	0.83	0.83
Hourly flow rate (vph)	0	0	0	239	18	634	3	386	0	0	141	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						16						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											727	
pX, platoon unblocked												
vC, conflicting volume	668	535	142	535	536	193	143			386		
vC1, stage 1 conf vol	142	142		393	393							
vC2, stage 2 conf vol	526	393		142	143							
vCu, unblocked vol	668	535	142	535	536	193	143			386		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	58	97	22	100			100		
cM capacity (veh/h)	106	569	880	569	568	816	1437			1169		

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	892	132	257	143
Volume Left	239	3	0	0
Volume Right	634	0	0	2
cSH	1148	1437	1700	1700
Volume to Capacity	0.78	0.00	0.15	0.08
Queue Length 95th (ft)	207	0	0	0
Control Delay (s)	21.1	0.2	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	21.1	0.1		0.0
Approach LOS	C			

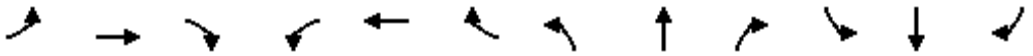
Intersection Summary				
Average Delay	13.2			
Intersection Capacity Utilization	37.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	120	82	62	0	0	0	0	215	47	19	268	0
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.90	0.90	0.90	0.85	0.85	0.85
Hourly flow rate (vph)	141	96	73	0	0	0	0	239	52	22	315	0

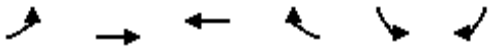
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	189	121	159	132	127	210
Volume Left (vph)	141	0	0	0	22	0
Volume Right (vph)	0	73	0	52	0	0
Hadj (s)	0.41	-0.39	0.03	-0.24	0.12	0.03
Departure Headway (s)	6.5	5.7	5.9	5.7	6.0	5.9
Degree Utilization, x	0.34	0.19	0.26	0.21	0.21	0.34
Capacity (veh/h)	526	595	581	606	576	590
Control Delay (s)	11.6	8.8	9.8	8.9	9.4	10.7
Approach Delay (s)	10.5		9.4		10.2	
Approach LOS	B		A		B	

Intersection Summary				
Delay	10.1			
Level of Service	B			
Intersection Capacity Utilization	33.1%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	10	230	8	6	12	0	0	77	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.6		5.6	5.6			5.6	
Lane Util. Factor					0.95		1.00	1.00			1.00	
Frt					1.00		1.00	1.00			0.96	
Flt Protected					1.00		0.95	1.00			1.00	
Satd. Flow (prot)					3443		1805	1900			1777	
Flt Permitted					1.00		0.68	1.00			1.00	
Satd. Flow (perm)					3443		1286	1900			1777	
Peak-hour factor, PHF	0.85	0.85	0.85	1.00	1.00	1.00	0.64	0.64	0.64	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	10	230	8	9	19	0	0	91	34
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	16	0
Lane Group Flow (vph)	0	0	0	0	244	0	9	19	0	0	109	0
Heavy Vehicles (%)	2%	2%	2%	0%	4%	13%	0%	0%	0%	0%	3%	3%
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4			2					
Actuated Green, G (s)					16.4		32.4	32.4			32.4	
Effective Green, g (s)					16.4		32.4	32.4			32.4	
Actuated g/C Ratio					0.27		0.54	0.54			0.54	
Clearance Time (s)					5.6		5.6	5.6			5.6	
Lane Grp Cap (vph)					941		694	1026			959	
v/s Ratio Prot								0.01			c0.06	
v/s Ratio Perm					0.07		0.01					
v/c Ratio					0.26		0.01	0.02			0.11	
Uniform Delay, d1					17.1		6.4	6.4			6.8	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					0.7		0.0	0.0			0.2	
Delay (s)					17.7		6.4	6.4			7.0	
Level of Service					B		A	A			A	
Approach Delay (s)		0.0			17.7			6.4			7.0	
Approach LOS		A			B			A			A	

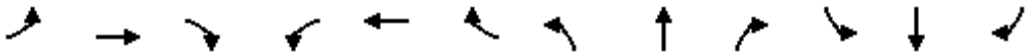
Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.16		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	16	529	0	0	64	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2			4.0	
Lane Util. Factor		0.95			0.97	
Frt		1.00			1.00	
Flt Protected		1.00			0.95	
Satd. Flow (prot)		3503			3335	
Flt Permitted		1.00			0.95	
Satd. Flow (perm)		3503			3335	
Peak-hour factor, PHF	0.77	0.77	0.25	0.25	1.00	1.00
Adj. Flow (vph)	21	687	0	0	64	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	708	0	0	64	0
Heavy Vehicles (%)	0%	3%	0%	0%	5%	0%
Turn Type	Perm	NA			Perm	
Protected Phases		8				
Permitted Phases	8				2	
Actuated Green, G (s)		30.0			19.0	
Effective Green, g (s)		30.0			19.0	
Actuated g/C Ratio		0.52			0.33	
Clearance Time (s)		4.2			4.0	
Vehicle Extension (s)		3.0			3.0	
Lane Grp Cap (vph)		1837			1107	
v/s Ratio Prot						
v/s Ratio Perm		0.20			c0.02	
v/c Ratio		0.39			0.06	
Uniform Delay, d1		8.1			13.0	
Progression Factor		1.00			1.00	
Incremental Delay, d2		0.1			0.0	
Delay (s)		8.2			13.0	
Level of Service		A			B	
Approach Delay (s)		8.2	0.0		13.0	
Approach LOS		A	A		B	

Intersection Summary			
HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	57.2	Sum of lost time (s)	8.2
Intersection Capacity Utilization	79.5%	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)	9	294	128	7	168	15	2	11	14	13	58	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.95		1.00	0.99		1.00	0.92		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1778		1770	1841		1770	1704		1770	1812	
Flt Permitted	0.63	1.00		0.26	1.00		0.69	1.00		0.74	1.00	
Satd. Flow (perm)	1177	1778		480	1841		1285	1704		1374	1812	
Peak-hour factor, PHF	0.64	0.64	0.64	0.91	0.91	0.91	0.84	0.84	0.84	0.68	0.68	0.68
Adj. Flow (vph)	14	459	200	8	185	16	2	13	17	19	85	19
RTOR Reduction (vph)	0	26	0	0	5	0	0	12	0	0	13	0
Lane Group Flow (vph)	14	633	0	8	196	0	2	18	0	19	91	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	30.6	30.6		30.6	30.6		18.6	18.6		18.6	18.6	
Effective Green, g (s)	30.6	30.6		30.6	30.6		18.6	18.6		18.6	18.6	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.31	0.31		0.31	0.31	
Clearance Time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Lane Grp Cap (vph)	600	906		244	938		398	528		425	561	
v/s Ratio Prot		c0.36			0.11			0.01			c0.05	
v/s Ratio Perm	0.01			0.02			0.00			0.01		
v/c Ratio	0.02	0.70		0.03	0.21		0.01	0.03		0.04	0.16	
Uniform Delay, d1	7.3	11.2		7.3	8.1		14.3	14.4		14.5	15.0	
Progression Factor	1.24	0.86		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	3.3		0.2	0.5		0.0	0.1		0.2	0.6	
Delay (s)	9.1	13.0		7.6	8.6		14.3	14.6		14.7	15.7	
Level of Service	A	B		A	A		B	B		B	B	
Approach Delay (s)		12.9			8.5			14.5			15.5	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



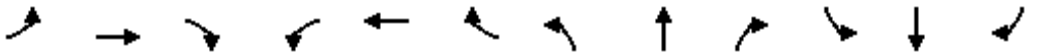
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	87	8	7	37	7	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.2	4.2
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1829		1805	1900	1583	1615
Flt Permitted	1.00		0.66	1.00	0.95	1.00
Satd. Flow (perm)	1829		1262	1900	1583	1615
Peak-hour factor, PHF	0.65	0.65	1.00	1.00	1.00	1.00
Adj. Flow (vph)	134	12	7	37	7	13
RTOR Reduction (vph)	6	0	0	0	0	8
Lane Group Flow (vph)	141	0	7	37	7	5
Heavy Vehicles (%)	3%	0%	0%	0%	14%	0%
Turn Type	NA		Perm	NA	Perm	Perm
Protected Phases	8			4		
Permitted Phases			4		6	6
Actuated Green, G (s)	30.0		30.0	30.0	21.8	21.8
Effective Green, g (s)	30.0		30.0	30.0	21.8	21.8
Actuated g/C Ratio	0.50		0.50	0.50	0.36	0.36
Clearance Time (s)	4.0		4.0	4.0	4.2	4.2
Lane Grp Cap (vph)	914		631	950	575	586
v/s Ratio Prot	c0.08			0.02		
v/s Ratio Perm			0.01		c0.00	0.00
v/c Ratio	0.15		0.01	0.04	0.01	0.01
Uniform Delay, d1	8.1		7.5	7.6	12.2	12.2
Progression Factor	1.00		1.63	1.55	1.00	1.00
Incremental Delay, d2	0.4		0.0	0.1	0.0	0.0
Delay (s)	8.5		12.3	11.9	12.3	12.2
Level of Service	A		B	B	B	B
Approach Delay (s)	8.5			12.0	12.2	
Approach LOS	A			B	B	

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.09		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.2
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	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	76	4	3	61	21	3	38	6	19	44	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.96			0.98			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1770	1848		1770	1790			1826			1820	
Flt Permitted	0.69	1.00		0.70	1.00			0.99			0.92	
Satd. Flow (perm)	1290	1848		1295	1790			1807			1702	
Peak-hour factor, PHF	0.84	0.84	0.84	0.82	0.82	0.82	0.73	0.73	0.73	0.88	0.88	0.88
Adj. Flow (vph)	8	90	5	4	74	26	4	52	8	22	50	5
RTOR Reduction (vph)	0	2	0	0	12	0	0	6	0	0	4	0
Lane Group Flow (vph)	8	93	0	4	88	0	0	58	0	0	73	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	31.8	31.8		31.8	31.8			17.8			17.8	
Effective Green, g (s)	31.8	31.8		31.8	31.8			17.8			17.8	
Actuated g/C Ratio	0.53	0.53		0.53	0.53			0.30			0.30	
Clearance Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Lane Grp Cap (vph)	683	979		686	948			536			504	
v/s Ratio Prot		c0.05			0.05							
v/s Ratio Perm	0.01			0.00				0.03			c0.04	
v/c Ratio	0.01	0.09		0.01	0.09			0.11			0.15	
Uniform Delay, d1	6.7	7.0		6.6	7.0			15.3			15.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	0.2		0.0	0.2			0.4			0.6	
Delay (s)	6.7	7.2		6.7	7.2			15.7			16.1	
Level of Service	A	A		A	A			B			B	
Approach Delay (s)		7.1			7.1			15.7			16.1	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.11		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	266	221	195	384	0	12	0	17	49	5	53
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.98	0.98	0.98	0.60	0.60	0.60	0.81	0.81	0.81
Hourly flow rate (vph)	0	299	248	199	392	0	20	0	28	60	6	65
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												2
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	392			547			1053	1213	274	968	1337	196
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	392			547			1053	1213	274	968	1337	196
tC, single (s)	4.1			4.2			7.5	6.5	7.1	7.7	6.5	7.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.6	4.0	3.4
p0 queue free %	100			80			85	100	96	62	95	92
cM capacity (veh/h)	1178			998			137	147	698	158	124	773

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	199	348	330	261	48	132
Volume Left	0	0	199	0	20	60
Volume Right	0	248	0	0	28	65
cSH	1700	1700	998	1700	259	306
Volume to Capacity	0.12	0.20	0.20	0.15	0.19	0.43
Queue Length 95th (ft)	0	0	19	0	17	52
Control Delay (s)	0.0	0.0	6.6	0.0	22.1	27.6
Lane LOS			A		C	D
Approach Delay (s)	0.0		3.7		22.1	27.6
Approach LOS					C	D

Intersection Summary				
Average Delay	5.2			
Intersection Capacity Utilization	49.1%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	77	255	0	0	374	105	205	3	132	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.94	0.94	0.94	0.84	0.84	0.84	0.92	0.92	0.92
Hourly flow rate (vph)	86	283	0	0	398	112	244	4	157	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									13			
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	510			283			653	964	142	847	908	255
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	510			283			653	964	142	847	908	255
tC, single (s)	4.1			4.1			7.6	7.2	7.2	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.3	3.4	3.5	4.0	3.3
p0 queue free %	92			100			26	98	81	100	100	100
cM capacity (veh/h)	1059			1291			329	190	841	194	255	751

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	180	189	265	244	405
Volume Left	86	0	0	0	244
Volume Right	0	0	0	112	157
cSH	1059	1700	1700	1700	534
Volume to Capacity	0.08	0.11	0.16	0.14	0.76
Queue Length 95th (ft)	7	0	0	0	166
Control Delay (s)	4.5	0.0	0.0	0.0	30.7
Lane LOS	A				D
Approach Delay (s)	2.2		0.0		30.7
Approach LOS					D

Intersection Summary			
Average Delay	10.3		
Intersection Capacity Utilization	44.5%	ICU Level of Service	A
Analysis Period (min)	15		

MOVEMENT SUMMARY

Site: pm peak

Belmont Roundabout
Baseline Conditions
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Wesley											
3L	L	30	17.8	0.091	4.0	LOS A	0.3	8.9	0.37	0.77	26.0
8T	T	35	3.0	0.091	4.0	LOS A	0.3	8.9	0.37	0.41	28.9
8R	R	37	17.0	0.091	4.0	LOS A	0.3	8.9	0.37	0.36	27.8
Approach		102	12.4	0.091	4.0	LOS A	0.3	8.9	0.37	0.50	27.6
East: Belmont/Thorne											
1L	L	31	30.3	0.352	5.7	LOS A	1.3	34.8	0.24	0.85	28.0
6T	T	293	4.0	0.352	5.7	LOS A	1.3	34.8	0.24	0.38	31.7
6R	R	173	2.0	0.352	5.7	LOS A	1.3	34.8	0.24	0.43	32.7
Approach		498	4.9	0.352	5.7	LOS A	1.3	34.8	0.24	0.43	31.7
North: Golden State											
7L	L	59	4.9	0.088	3.6	LOS A	0.3	7.9	0.32	0.75	31.8
4T	T	9	10.0	0.088	3.6	LOS A	0.3	7.9	0.32	0.45	36.5
4R	R	44	0.0	0.088	3.6	LOS A	0.3	7.9	0.32	0.47	36.4
Approach		112	3.4	0.088	3.6	LOS A	0.3	7.9	0.32	0.62	33.6
West: Belmont											
5L	L	91	1.9	0.265	4.7	LOS A	0.9	23.7	0.18	0.81	29.7
2T	T	273	5.0	0.265	4.7	LOS A	0.9	23.7	0.18	0.34	32.3
2R	R	21	10.0	0.265	4.7	LOS A	0.9	23.7	0.18	0.27	32.0
Approach		385	4.5	0.265	4.7	LOS A	0.9	23.7	0.18	0.45	31.5
South West: Arthur											
13L	L	5	0.4	0.016	4.0	LOS A	0.1	2.3	0.58	0.68	24.0
18R	R	10	0.2	0.016	4.0	LOS A	0.1	2.3	0.58	0.40	24.0
Approach		15	0.3	0.016	4.0	LOS A	0.1	2.3	0.58	0.50	24.0
All Vehicles		1112	5.3	0.352	5.0	LOS A	1.3	34.8	0.24	0.46	31.2

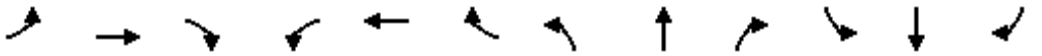
Level of Service (LOS) Method: Delay (HCM 2000).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
HCM Delay Model used. Geometric Delay not included.

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Movement	EBT	EBR	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2	SWL2
Lane Configurations										
Volume (vph)	311	57	242	123	9	144	536	1	10	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.0	4.2	4.2			4.9	4.9		4.9
Lane Util. Factor	1.00	1.00	1.00	1.00			0.95	1.00		1.00
Frt	1.00	0.85	1.00	0.85			1.00	0.85		1.00
Flt Protected	1.00	1.00	1.00	1.00			0.99	1.00		0.95
Satd. Flow (prot)	1863	1583	1863	1583			3502	1583		1770
Flt Permitted	1.00	1.00	1.00	1.00			0.99	1.00		0.75
Satd. Flow (perm)	1863	1583	1863	1583			3502	1583		1393
Peak-hour factor, PHF	0.94	0.94	0.88	0.88	0.88	0.69	0.69	0.69	0.69	0.88
Adj. Flow (vph)	331	61	275	140	10	209	777	1	14	16
RTOR Reduction (vph)	0	0	0	21	0	0	0	9	0	0
Lane Group Flow (vph)	331	61	275	129	0	0	986	6	0	16
Turn Type	NA	Free	NA	Perm		Perm	NA	Perm		D.Pm
Protected Phases	4		4				2			
Permitted Phases		Free		4		2		2		2
Actuated Green, G (s)	24.0	57.1	24.0	24.0			24.0	24.0		24.0
Effective Green, g (s)	24.0	57.1	24.0	24.0			24.0	24.0		24.0
Actuated g/C Ratio	0.42	1.00	0.42	0.42			0.42	0.42		0.42
Clearance Time (s)	4.2		4.2	4.2			4.9	4.9		4.9
Lane Grp Cap (vph)	783	1583	783	665			1471	665		585
v/s Ratio Prot	c0.18		0.15							
v/s Ratio Perm		0.04		0.08			0.28	0.00		0.01
v/c Ratio	0.42	0.04	0.35	0.19			0.67	0.01		0.03
Uniform Delay, d1	11.7	0.0	11.3	10.4			13.4	9.6		9.7
Progression Factor	1.00	1.00	1.00	1.00			1.00	1.00		1.00
Incremental Delay, d2	1.7	0.0	1.2	0.7			2.4	0.0		0.1
Delay (s)	13.3	0.0	12.5	11.1			15.8	9.7		9.8
Level of Service	B	A	B	B			B	A		A
Approach Delay (s)	11.3		12.0				15.7			
Approach LOS	B		B				B			

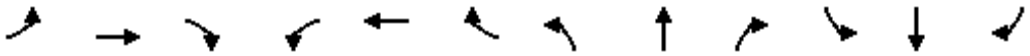
Intersection Summary			
HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	57.1	Sum of lost time (s)	9.1
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	59	247	31	17	296	161	23	290	45	85	115	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.9		4.1		4.1	4.1	4.1
Lane Util. Factor		0.95			0.95	1.00		0.95		1.00	0.95	1.00
Frt		0.99			1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected		0.99			1.00	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)		3349			3481	1599		3485		1787	3471	1583
Flt Permitted		0.84			0.93	1.00		0.93		0.50	1.00	1.00
Satd. Flow (perm)		2830			3241	1599		3269		943	3471	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.83	0.83	0.83	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	61	255	32	20	357	194	27	337	52	99	134	55
RTOR Reduction (vph)	0	14	0	0	0	113	0	20	0	0	0	32
Lane Group Flow (vph)	0	334	0	0	377	81	0	396	0	99	134	23
Heavy Vehicles (%)	3%	3%	29%	11%	3%	1%	4%	1%	2%	1%	4%	2%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4		4	2			2		2
Actuated Green, G (s)		23.0			23.0	23.0		23.0		23.0	23.0	23.0
Effective Green, g (s)		23.0			23.0	23.0		23.0		23.0	23.0	23.0
Actuated g/C Ratio		0.42			0.42	0.42		0.42		0.42	0.42	0.42
Clearance Time (s)		4.9			4.9	4.9		4.1		4.1	4.1	4.1
Lane Grp Cap (vph)		1183			1355	668		1367		394	1451	661
v/s Ratio Prot											0.04	
v/s Ratio Perm		c0.12			0.12	0.05		c0.12		0.11		0.01
v/c Ratio		0.28			0.28	0.12		0.29		0.25	0.09	0.03
Uniform Delay, d1		10.6			10.5	9.8		10.6		10.4	9.7	9.4
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2		0.6			0.5	0.4		0.5		1.5	0.1	0.1
Delay (s)		11.2			11.0	10.2		11.1		11.9	9.8	9.5
Level of Service		B			B	B		B		B	A	A
Approach Delay (s)		11.2			10.8			11.1			10.5	
Approach LOS		B			B			B			B	

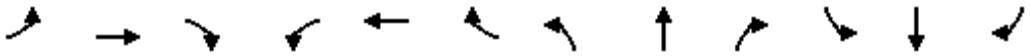
Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	297	142	37	497	0	0	0	0	31	441	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2	5.2		5.2						5.6	
Lane Util. Factor		0.95	1.00		0.95						0.95	
Frt		1.00	0.85		1.00						0.99	
Flt Protected		1.00	1.00		1.00						1.00	
Satd. Flow (prot)		3471	1615		3527						3495	
Flt Permitted		1.00	1.00		0.90						1.00	
Satd. Flow (perm)		3471	1615		3191						3495	
Peak-hour factor, PHF	0.90	0.90	0.90	0.81	0.81	0.81	0.92	0.92	0.92	0.85	0.85	0.85
Adj. Flow (vph)	0	330	158	46	614	0	0	0	0	36	519	33
RTOR Reduction (vph)	0	0	112	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	330	46	0	660	0	0	0	0	0	583	0
Heavy Vehicles (%)	0%	4%	0%	2%	2%	0%	0%	0%	0%	3%	2%	3%
Turn Type		NA	Perm	Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases			4	8						6		
Actuated Green, G (s)		20.5	20.5		20.5						38.7	
Effective Green, g (s)		20.5	20.5		20.5						38.7	
Actuated g/C Ratio		0.29	0.29		0.29						0.55	
Clearance Time (s)		5.2	5.2		5.2						5.6	
Vehicle Extension (s)		0.2	0.2		0.2						0.2	
Lane Grp Cap (vph)		1016	472		934						1932	
v/s Ratio Prot		0.10										
v/s Ratio Perm			0.03		c0.21						0.17	
v/c Ratio		0.32	0.10		0.71						0.30	
Uniform Delay, d1		19.3	18.0		22.1						8.4	
Progression Factor		1.00	1.00		1.44						1.00	
Incremental Delay, d2		0.1	0.0		1.9						0.4	
Delay (s)		19.4	18.1		33.7						8.8	
Level of Service		B	B		C						A	
Approach Delay (s)		19.0			33.7			0.0			8.8	
Approach LOS		B			C			A			A	

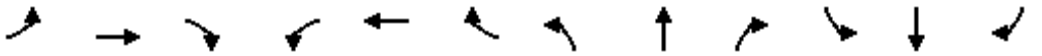
Intersection Summary			
HCM 2000 Control Delay	21.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



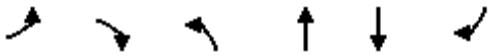
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	298	0	0	290	23	239	601	50	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6			5.6	5.6	5.6	5.6	5.6			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1805	3471			3505	1615	1770	1881	1553			
Flt Permitted	0.54	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1017	3471			3505	1615	1770	1881	1553			
Peak-hour factor, PHF	0.94	0.94	0.94	0.82	0.82	0.82	0.84	0.84	0.84	0.92	0.92	0.92
Adj. Flow (vph)	31	317	0	0	354	28	285	715	60	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	20	0	0	18	0	0	0
Lane Group Flow (vph)	31	317	0	0	354	8	285	715	42	0	0	0
Heavy Vehicles (%)	0%	4%	0%	0%	3%	0%	2%	1%	4%	0%	0%	0%
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	20.0	20.0			20.0	20.0	38.8	38.8	38.8			
Effective Green, g (s)	20.0	20.0			20.0	20.0	38.8	38.8	38.8			
Actuated g/C Ratio	0.29	0.29			0.29	0.29	0.55	0.55	0.55			
Clearance Time (s)	5.6	5.6			5.6	5.6	5.6	5.6	5.6			
Lane Grp Cap (vph)	290	991			1001	461	981	1042	860			
v/s Ratio Prot		0.09			c0.10			c0.38				
v/s Ratio Perm	0.03					0.00	0.16		0.03			
v/c Ratio	0.11	0.32			0.35	0.02	0.29	0.69	0.05			
Uniform Delay, d1	18.4	19.7			19.9	17.9	8.3	11.2	7.1			
Progression Factor	0.22	0.21			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.7	0.8			1.0	0.1	0.7	3.7	0.1			
Delay (s)	4.8	4.9			20.8	18.0	9.0	14.9	7.3			
Level of Service	A	A			C	B	A	B	A			
Approach Delay (s)		4.9			20.6			12.9			0.0	
Approach LOS		A			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



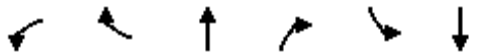
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	225	282	13	155	0	0	0	0	3	688	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.0	3.7	4.2						4.9	4.9
Lane Util. Factor		1.00	1.00	1.00	1.00						0.95	1.00
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						1.00	1.00
Satd. Flow (prot)		1863	1583	1770	1863						3539	1583
Flt Permitted		1.00	1.00	0.95	1.00						1.00	1.00
Satd. Flow (perm)		1863	1583	1770	1863						3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.74	0.74	0.74	0.92	0.92	0.92	0.86	0.86	0.86
Adj. Flow (vph)	0	250	313	18	209	0	0	0	0	3	800	186
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	81
Lane Group Flow (vph)	0	250	313	18	209	0	0	0	0	0	803	105
Turn Type		NA	Free	Prot	NA					Perm	NA	Perm
Protected Phases		4		3	8						6	
Permitted Phases			Free							6		6
Actuated Green, G (s)		16.4	70.0	1.3	21.4						39.5	39.5
Effective Green, g (s)		16.4	70.0	1.3	21.4						39.5	39.5
Actuated g/C Ratio		0.23	1.00	0.02	0.31						0.56	0.56
Clearance Time (s)		4.2		3.7	4.2						4.9	4.9
Vehicle Extension (s)		4.9		2.0	4.6						5.2	5.2
Lane Grp Cap (vph)		436	1583	32	569						1997	893
v/s Ratio Prot		c0.13		0.01	0.11							
v/s Ratio Perm			c0.20								0.23	0.07
v/c Ratio		0.57	0.20	0.56	0.37						0.40	0.12
Uniform Delay, d1		23.7	0.0	34.1	19.0						8.6	7.1
Progression Factor		1.00	1.00	0.78	0.83						1.00	1.00
Incremental Delay, d2		2.8	0.3	12.5	0.7						0.6	0.3
Delay (s)		26.5	0.3	39.1	16.5						9.2	7.4
Level of Service		C	A	D	B						A	A
Approach Delay (s)		11.9			18.2			0.0			8.9	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	46.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



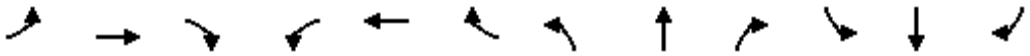
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	228	0	168	859	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2			4.9		
Lane Util. Factor	1.00			0.91		
Frt	1.00			1.00		
Flt Protected	0.95			0.99		
Satd. Flow (prot)	1770			5044		
Flt Permitted	0.95			0.99		
Satd. Flow (perm)	1770			5044		
Peak-hour factor, PHF	0.89	0.89	0.93	0.93	0.92	0.92
Adj. Flow (vph)	256	0	181	924	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	256	0	0	1105	0	0
Turn Type	Prot		Perm	NA		
Protected Phases	4			2		
Permitted Phases			2			
Actuated Green, G (s)	17.6			43.3		
Effective Green, g (s)	17.6			43.3		
Actuated g/C Ratio	0.25			0.62		
Clearance Time (s)	4.2			4.9		
Vehicle Extension (s)	5.7			5.2		
Lane Grp Cap (vph)	445			3120		
v/s Ratio Prot	c0.14					
v/s Ratio Perm				0.22		
v/c Ratio	0.58			0.35		
Uniform Delay, d1	22.9			6.5		
Progression Factor	0.25			1.00		
Incremental Delay, d2	3.2			0.3		
Delay (s)	8.9			6.8		
Level of Service	A			A		
Approach Delay (s)	8.9			6.8	0.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	7.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	46.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



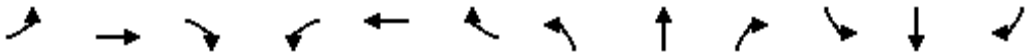
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	99	0	0	0	250	745
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2					4.9
Lane Util. Factor	1.00					0.91
Frt	1.00					1.00
Flt Protected	0.95					0.99
Satd. Flow (prot)	1770					5022
Flt Permitted	0.95					0.99
Satd. Flow (perm)	1770					5022
Peak-hour factor, PHF	0.75	0.75	0.92	0.92	0.89	0.89
Adj. Flow (vph)	132	0	0	0	281	837
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	132	0	0	0	0	1118
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Actuated Green, G (s)	11.5					53.3
Effective Green, g (s)	11.5					53.3
Actuated g/C Ratio	0.16					0.72
Clearance Time (s)	4.2					4.9
Vehicle Extension (s)	4.8					5.4
Lane Grp Cap (vph)	275					3622
v/s Ratio Prot	c0.07					
v/s Ratio Perm						0.22
v/c Ratio	0.48					0.31
Uniform Delay, d1	28.5					3.7
Progression Factor	1.00					1.00
Incremental Delay, d2	2.6					0.2
Delay (s)	31.0					3.9
Level of Service	C					A
Approach Delay (s)	31.0		0.0			3.9
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	6.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	73.9	Sum of lost time (s)	9.1
Intersection Capacity Utilization	77.0%	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)	17	233	0	0	99	192	0	825	549	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.2	4.2		4.9	4.9			
Lane Util. Factor	1.00	1.00			1.00	1.00		0.91	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	1863			1863	1583		5085	1583			
Flt Permitted	0.68	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1265	1863			1863	1583		5085	1583			
Peak-hour factor, PHF	0.87	0.87	0.87	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	20	268	0	0	121	234	0	938	624	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	64	0	0	175	0	0	0
Lane Group Flow (vph)	20	268	0	0	121	170	0	938	449	0	0	0
Turn Type	Perm	NA			NA	Perm		NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	17.5	17.5			17.5	17.5		45.3	45.3			
Effective Green, g (s)	17.5	17.5			17.5	17.5		45.3	45.3			
Actuated g/C Ratio	0.24	0.24			0.24	0.24		0.63	0.63			
Clearance Time (s)	4.2	4.2			4.2	4.2		4.9	4.9			
Vehicle Extension (s)	4.5	4.5			4.8	4.8		3.8	3.8			
Lane Grp Cap (vph)	307	453			453	385		3203	997			
v/s Ratio Prot		c0.14			0.06			0.18				
v/s Ratio Perm	0.02					0.11			c0.28			
v/c Ratio	0.07	0.59			0.27	0.44		0.29	0.45			
Uniform Delay, d1	20.9	24.0			22.0	23.1		6.0	6.9			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.2	2.8			0.6	1.6		0.2	1.5			
Delay (s)	21.1	26.8			22.6	24.6		6.3	8.3			
Level of Service	C	C			C	C		A	A			
Approach Delay (s)		26.4			23.9			7.1			0.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	71.9	Sum of lost time (s)	9.1
Intersection Capacity Utilization	64.0%	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	450	33	83	296	0	0	0	0	171	547	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2		4.2	4.2						4.9	
Lane Util. Factor		0.95		1.00	0.95						0.91	
Frt		0.99		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		3440		1770	3539						4927	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		3440		1770	3539						4927	
Peak-hour factor, PHF	0.97	0.97	0.97	0.83	0.83	0.83	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	0	464	34	100	357	0	0	0	0	192	615	133
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	26	0
Lane Group Flow (vph)	0	490	0	100	357	0	0	0	0	0	914	0
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases										6		
Actuated Green, G (s)		18.8		7.4	30.4						30.5	
Effective Green, g (s)		18.8		7.4	30.4						30.5	
Actuated g/C Ratio		0.27		0.11	0.43						0.44	
Clearance Time (s)		4.2		4.2	4.2						4.9	
Vehicle Extension (s)		6.8		2.0	6.8						5.4	
Lane Grp Cap (vph)		923		187	1536						2146	
v/s Ratio Prot		c0.14		c0.06	0.10							
v/s Ratio Perm											0.19	
v/c Ratio		0.53		0.53	0.23						0.43	
Uniform Delay, d1		21.8		29.7	12.5						13.7	
Progression Factor		1.00		1.41	0.89						1.00	
Incremental Delay, d2		1.7		1.4	0.3						0.6	
Delay (s)		23.5		43.1	11.3						14.3	
Level of Service		C		D	B						B	
Approach Delay (s)		23.5			18.3			0.0			14.3	
Approach LOS		C			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	17.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	13.3
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

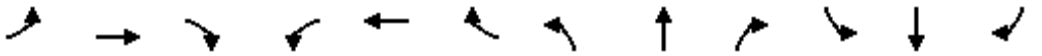
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	131	490	0	0	341	92	33	1145	21	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.7	4.2			4.2	4.2		4.9	4.9			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.91	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	3539			3539	1583		5078	1583			
Flt Permitted	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1770	3539			3539	1583		5078	1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.84	0.84	0.84	0.86	0.86	0.86	0.92	0.92	0.92
Adj. Flow (vph)	138	516	0	0	406	110	38	1331	24	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	71	0	0	17	0	0	0
Lane Group Flow (vph)	138	516	0	0	406	39	0	1369	7	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases						8	2		2			
Actuated Green, G (s)	12.5	41.2			25.0	25.0		19.7	19.7			
Effective Green, g (s)	12.5	41.2			25.0	25.0		19.7	19.7			
Actuated g/C Ratio	0.18	0.59			0.36	0.36		0.28	0.28			
Clearance Time (s)	3.7	4.2			4.2	4.2		4.9	4.9			
Lane Grp Cap (vph)	316	2082			1263	565		1429	445			
v/s Ratio Prot	c0.08	0.15			c0.11							
v/s Ratio Perm						0.02		0.27	0.00			
v/c Ratio	0.44	0.25			0.32	0.07		0.96	0.02			
Uniform Delay, d1	25.6	6.9			16.3	14.8		24.7	18.1			
Progression Factor	1.39	0.70			1.00	1.00		1.00	1.00			
Incremental Delay, d2	3.9	0.3			0.7	0.2		15.7	0.1			
Delay (s)	39.5	5.1			17.0	15.1		40.4	18.2			
Level of Service	D	A			B	B		D	B			
Approach Delay (s)		12.4			16.6			40.1			0.0	
Approach LOS		B			B			D			A	

Intersection Summary			
HCM 2000 Control Delay	28.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	71	443	53	83	368	82	53	396	71	102	232	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	0.97		1.00	0.98		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3483		1770	3443		1770	3459		1770	3405	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3483		1770	3443		1770	3459		1770	3405	
Peak-hour factor, PHF	0.94	0.94	0.94	0.85	0.85	0.85	0.77	0.77	0.77	0.88	0.88	0.88
Adj. Flow (vph)	76	471	56	98	433	96	69	514	92	116	264	89
RTOR Reduction (vph)	0	9	0	0	18	0	0	13	0	0	30	0
Lane Group Flow (vph)	76	518	0	98	511	0	69	593	0	116	323	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	6.1	15.8		6.9	16.6		5.9	17.2		7.5	18.8	
Effective Green, g (s)	6.1	15.8		6.9	16.6		5.9	17.2		7.5	18.8	
Actuated g/C Ratio	0.09	0.24		0.11	0.26		0.09	0.27		0.12	0.29	
Clearance Time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Vehicle Extension (s)	2.0	3.5		2.0	3.5		2.0	3.5		2.0	3.5	
Lane Grp Cap (vph)	167	851		189	884		161	920		205	990	
v/s Ratio Prot	0.04	c0.15		c0.06	0.15		0.04	c0.17		c0.07	0.09	
v/s Ratio Perm												
v/c Ratio	0.46	0.61		0.52	0.58		0.43	0.64		0.57	0.33	
Uniform Delay, d1	27.7	21.7		27.3	20.9		27.8	21.0		27.0	17.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	1.3		1.0	1.0		0.7	1.6		2.1	0.2	
Delay (s)	28.4	23.0		28.3	21.9		28.4	22.6		29.1	18.2	
Level of Service	C	C		C	C		C	C		C	B	
Approach Delay (s)		23.6			22.9			23.2			20.9	
Approach LOS		C			C			C			C	

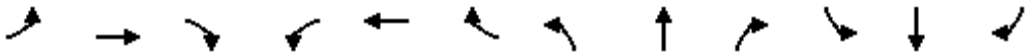
Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	64.6	Sum of lost time (s)	17.2
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	119	452	127	112	369	153	109	570	52	131	430	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9		4.0	4.9	4.9
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3383		1770	3495		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3383		1770	3495		1770	3539	1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.87	0.87	0.87	0.91	0.91	0.91	0.84	0.84	0.84
Adj. Flow (vph)	124	471	132	129	424	176	120	626	57	156	512	92
RTOR Reduction (vph)	0	0	98	0	45	0	0	7	0	0	0	64
Lane Group Flow (vph)	124	471	34	129	555	0	120	676	0	156	512	28
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases			4									2
Actuated Green, G (s)	8.8	22.0	22.0	10.6	23.8		8.7	23.5		11.6	26.4	26.4
Effective Green, g (s)	8.8	22.0	22.0	10.6	23.8		8.7	23.5		11.6	26.4	26.4
Actuated g/C Ratio	0.10	0.26	0.26	0.12	0.28		0.10	0.27		0.14	0.31	0.31
Clearance Time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9		4.0	4.9	4.9
Vehicle Extension (s)	2.0	4.5	4.5	2.0	4.5		2.0	5.0		2.0	5.0	5.0
Lane Grp Cap (vph)	182	910	407	219	941		180	960		240	1092	488
v/s Ratio Prot	0.07	0.13		c0.07	c0.16		0.07	c0.19		c0.09	c0.14	
v/s Ratio Perm			0.02									0.02
v/c Ratio	0.68	0.52	0.08	0.59	0.59		0.67	0.70		0.65	0.47	0.06
Uniform Delay, d1	37.0	27.2	24.1	35.4	26.6		37.0	27.9		35.0	23.9	20.8
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	0.8	0.2	2.6	1.3		7.0	3.0		4.7	0.7	0.1
Delay (s)	45.1	28.0	24.3	38.0	28.0		44.0	30.9		39.8	24.6	20.9
Level of Service	D	C	C	D	C		D	C		D	C	C
Approach Delay (s)		30.3			29.7			32.8			27.2	
Approach LOS		C			C			C			C	

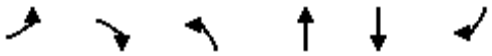
Intersection Summary			
HCM 2000 Control Delay	30.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	85.5	Sum of lost time (s)	17.8
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



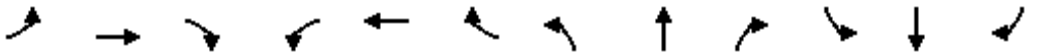
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	327	175	7	46	0	0	0	0	1	499	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7	4.0		3.7						4.1	
Lane Util. Factor		1.00	1.00		1.00						0.95	
Frt		1.00	0.85		1.00						0.97	
Flt Protected		1.00	1.00		0.99						1.00	
Satd. Flow (prot)		1863	1583		1850						3436	
Flt Permitted		1.00	1.00		0.95						1.00	
Satd. Flow (perm)		1863	1583		1774						3436	
Peak-hour factor, PHF	0.96	0.96	0.96	0.88	0.88	0.88	0.92	0.92	0.92	0.82	0.82	0.82
Adj. Flow (vph)	0	341	182	8	52	0	0	0	0	1	609	146
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	22	0
Lane Group Flow (vph)	0	341	182	0	60	0	0	0	0	0	734	0
Turn Type		NA	Free	Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases			Free	8						6		
Actuated Green, G (s)		19.8	70.0		19.8						42.4	
Effective Green, g (s)		19.8	70.0		19.8						42.4	
Actuated g/C Ratio		0.28	1.00		0.28						0.61	
Clearance Time (s)		3.7			3.7						4.1	
Vehicle Extension (s)		5.0			4.8						4.6	
Lane Grp Cap (vph)		526	1583		501						2081	
v/s Ratio Prot		c0.18										
v/s Ratio Perm			0.11		0.03						0.21	
v/c Ratio		0.65	0.11		0.12						0.35	
Uniform Delay, d1		22.0	0.0		18.6						6.9	
Progression Factor		1.00	1.00		1.00						0.79	
Incremental Delay, d2		3.7	0.1		0.2						0.5	
Delay (s)		25.8	0.1		18.8						5.9	
Level of Service		C	A		B						A	
Approach Delay (s)		16.9			18.8			0.0			5.9	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	7.8
Intersection Capacity Utilization	41.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



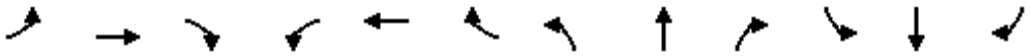
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	328	0	53	562	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6			4.6		
Lane Util. Factor	1.00			0.95		
Frt	1.00			1.00		
Flt Protected	0.95			1.00		
Satd. Flow (prot)	1770			3524		
Flt Permitted	0.95			1.00		
Satd. Flow (perm)	1770			3524		
Peak-hour factor, PHF	0.96	0.96	0.72	0.72	0.92	0.92
Adj. Flow (vph)	342	0	74	781	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	342	0	0	855	0	0
Turn Type	Prot		Perm	NA		
Protected Phases	4			2		
Permitted Phases			2			
Actuated Green, G (s)	18.8			35.6		
Effective Green, g (s)	18.8			35.6		
Actuated g/C Ratio	0.30			0.56		
Clearance Time (s)	4.6			4.6		
Vehicle Extension (s)	5.0			4.5		
Lane Grp Cap (vph)	523			1972		
v/s Ratio Prot	c0.19					
v/s Ratio Perm				0.24		
v/c Ratio	0.65			0.43		
Uniform Delay, d1	19.6			8.1		
Progression Factor	1.00			1.00		
Incremental Delay, d2	3.9			0.7		
Delay (s)	23.5			8.8		
Level of Service	C			A		
Approach Delay (s)	23.5			8.8	0.0	
Approach LOS	C			A	A	

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	63.6	Sum of lost time (s)	9.2
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



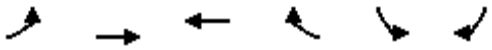
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	219	108	0	0	0	0	0	0	360	321	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.2							4.6	4.6	
Lane Util. Factor		0.95	1.00							1.00	0.95	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		3539	1583							1770	3539	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		3539	1583							1770	3539	
Peak-hour factor, PHF	0.84	0.84	0.84	0.92	0.92	0.92	0.92	0.92	0.92	0.86	0.86	0.86
Adj. Flow (vph)	0	261	129	0	0	0	0	0	0	419	373	0
RTOR Reduction (vph)	0	0	97	0	0	0	0	0	0	158	0	0
Lane Group Flow (vph)	0	261	32	0	0	0	0	0	0	261	373	0
Turn Type		NA	Perm							Split	NA	
Protected Phases		4								6	6	
Permitted Phases			4									
Actuated Green, G (s)		17.6	17.6							43.6	43.6	
Effective Green, g (s)		17.6	17.6							43.6	43.6	
Actuated g/C Ratio		0.25	0.25							0.62	0.62	
Clearance Time (s)		4.2	4.2							4.6	4.6	
Vehicle Extension (s)		6.4	6.4							5.6	5.6	
Lane Grp Cap (vph)		889	398							1102	2204	
v/s Ratio Prot		c0.07								c0.15	0.11	
v/s Ratio Perm			0.02									
v/c Ratio		0.29	0.08							0.24	0.17	
Uniform Delay, d1		21.2	20.0							5.8	5.6	
Progression Factor		1.00	1.00							1.00	0.46	
Incremental Delay, d2		0.6	0.3							0.5	0.2	
Delay (s)		21.8	20.3							6.3	2.7	
Level of Service		C	C							A	A	
Approach Delay (s)		21.3			0.0			0.0			4.6	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	219	360	0	0	0	0	0	396	348	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6						4.6	4.6			
Lane Util. Factor	1.00	1.00						0.95	1.00			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						1.00	1.00			
Satd. Flow (prot)	1770	1863						3539	1583			
Flt Permitted	0.95	1.00						1.00	1.00			
Satd. Flow (perm)	1770	1863						3539	1583			
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.70	0.70	0.70	0.92	0.92	0.92
Adj. Flow (vph)	258	424	0	0	0	0	0	566	497	0	0	0
RTOR Reduction (vph)	145	0	0	0	0	0	0	0	133	0	0	0
Lane Group Flow (vph)	113	424	0	0	0	0	0	566	364	0	0	0
Turn Type	Split	NA						NA	Perm			
Protected Phases	4	4						2				
Permitted Phases									2			
Actuated Green, G (s)	28.7	28.7						52.1	52.1			
Effective Green, g (s)	28.7	28.7						52.1	52.1			
Actuated g/C Ratio	0.32	0.32						0.58	0.58			
Clearance Time (s)	4.6	4.6						4.6	4.6			
Vehicle Extension (s)	5.0	5.0						4.5	4.5			
Lane Grp Cap (vph)	564	594						2048	916			
v/s Ratio Prot	0.06	c0.23						0.16				
v/s Ratio Perm									c0.23			
v/c Ratio	0.20	0.71						0.28	0.40			
Uniform Delay, d1	22.3	27.0						9.5	10.4			
Progression Factor	1.00	1.00						1.00	1.00			
Incremental Delay, d2	0.4	5.0						0.3	1.3			
Delay (s)	22.7	32.0						9.8	11.6			
Level of Service	C	C						A	B			
Approach Delay (s)		28.5			0.0			10.7			0.0	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

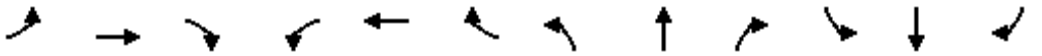


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	13	217	644	296	132	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8	4.8	4.8	
Lane Util. Factor		0.95	0.95	1.00	0.97	
Frt		1.00	1.00	0.85	0.99	
Flt Protected		1.00	1.00	1.00	0.96	
Satd. Flow (prot)		3487	3574	1583	3391	
Flt Permitted		0.91	1.00	1.00	0.96	
Satd. Flow (perm)		3187	3574	1583	3391	
Peak-hour factor, PHF	0.87	0.87	0.86	0.86	0.89	0.89
Adj. Flow (vph)	15	249	749	344	148	11
RTOR Reduction (vph)	0	0	0	165	7	0
Lane Group Flow (vph)	0	264	749	179	152	0
Heavy Vehicles (%)	7%	3%	1%	2%	3%	0%
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)		31.2	31.2	31.2	19.2	
Effective Green, g (s)		31.2	31.2	31.2	19.2	
Actuated g/C Ratio		0.52	0.52	0.52	0.32	
Clearance Time (s)		4.8	4.8	4.8	4.8	
Lane Grp Cap (vph)		1657	1858	823	1085	
v/s Ratio Prot			c0.21		c0.04	
v/s Ratio Perm		0.08		0.11		
v/c Ratio		0.16	0.40	0.22	0.14	
Uniform Delay, d1		7.5	8.7	7.8	14.5	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2	0.7	0.6	0.3	
Delay (s)		7.7	9.4	8.4	14.8	
Level of Service		A	A	A	B	
Approach Delay (s)		7.7	9.1		14.8	
Approach LOS		A	A		B	

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBT	WBR	WBR2	NBL	NBT	NBR2	SBL	SBT	SBR	SWR2
Lane Configurations												
Volume (vph)	150	9	74	444	2	4	293	19	162	75	1	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6		4.6	4.6			4.6	4.6	4.6	4.6		4.2
Lane Util. Factor	1.00		1.00	1.00			0.95	1.00	1.00	1.00		1.00
Frt	0.99		1.00	0.85			1.00	0.85	1.00	1.00		0.86
Flt Protected	1.00		1.00	1.00			1.00	1.00	0.95	1.00		1.00
Satd. Flow (prot)	1848		1863	1583			3537	1583	1770	1859		1611
Flt Permitted	1.00		1.00	1.00			1.00	1.00	0.95	1.00		1.00
Satd. Flow (perm)	1848		1863	1583			3537	1583	1770	1859		1611
Peak-hour factor, PHF	0.85	0.85	0.79	0.79	0.79	0.71	0.71	0.71	0.95	0.95	0.95	0.50
Adj. Flow (vph)	176	11	94	562	3	6	413	27	171	79	1	12
RTOR Reduction (vph)	2	0	0	21	0	0	0	22	0	1	0	12
Lane Group Flow (vph)	185	0	94	544	0	0	419	5	171	79	0	0
Turn Type	NA		NA	custom		Split	NA	Perm	Split	NA		Prot
Protected Phases	6		6	2		4	4		5	5		8
Permitted Phases								4				
Actuated Green, G (s)	21.6		21.6	64.9			16.8	16.8	38.7	38.7		0.9
Effective Green, g (s)	21.6		21.6	64.9			16.8	16.8	38.7	38.7		0.9
Actuated g/C Ratio	0.23		0.23	0.68			0.18	0.18	0.40	0.40		0.01
Clearance Time (s)	4.6		4.6	4.6			4.6	4.6	4.6	4.6		4.2
Vehicle Extension (s)	5.0		5.0	5.0			4.0	4.0	5.0	5.0		2.0
Lane Grp Cap (vph)	415		419	1070			618	277	713	749		15
v/s Ratio Prot	0.10		0.05	c0.34			c0.12		0.10	0.04		c0.00
v/s Ratio Perm								0.00				
v/c Ratio	0.45		0.22	0.51			0.68	0.02	0.24	0.11		0.01
Uniform Delay, d1	32.0		30.4	7.7			37.1	32.8	18.9	17.9		47.1
Progression Factor	1.00		1.00	1.00			1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	1.6		0.6	1.7			3.2	0.0	0.8	0.3		0.1
Delay (s)	33.6		30.9	9.4			40.3	32.8	19.7	18.1		47.2
Level of Service	C		C	A			D	C	B	B		D
Approach Delay (s)	33.6		12.5				39.8			19.2		
Approach LOS	C		B				D			B		

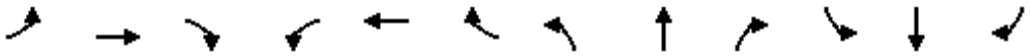
Intersection Summary			
HCM 2000 Control Delay	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	96.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	237	22	7	360	0	12	0	30	108	221	77
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
Lane Util. Factor		1.00		1.00	1.00		1.00		1.00	1.00	1.00	1.00
Frt		0.99		1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		1841		1770	1863		1770		1583	1770	1863	1583
Flt Permitted		1.00		0.56	1.00		0.59		1.00	0.95	1.00	1.00
Satd. Flow (perm)		1841		1042	1863		1105		1583	1770	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.91	0.91	0.88	0.88	0.88	0.93	0.93	0.93
Adj. Flow (vph)	0	249	23	8	396	0	14	0	34	116	238	83
RTOR Reduction (vph)	0	6	0	0	0	0	0	0	20	0	0	49
Lane Group Flow (vph)	0	266	0	8	396	0	14	0	14	116	238	34
Turn Type		NA		Perm	NA		D.Pm		Perm	Perm	NA	Perm
Protected Phases					4						2	
Permitted Phases		4		4			2		2	2		2
Actuated Green, G (s)		25.0		25.0	25.0		24.0		24.0	24.0	24.0	24.0
Effective Green, g (s)		25.0		25.0	25.0		24.0		24.0	24.0	24.0	24.0
Actuated g/C Ratio		0.43		0.43	0.43		0.41		0.41	0.41	0.41	0.41
Clearance Time (s)		4.5		4.5	4.5		4.5		4.5	4.5	4.5	4.5
Lane Grp Cap (vph)		793		449	803		457		655	732	770	655
v/s Ratio Prot					c0.21						c0.13	
v/s Ratio Perm		0.14		0.01			0.01		0.01	0.07		0.02
v/c Ratio		0.34		0.02	0.49		0.03		0.02	0.16	0.31	0.05
Uniform Delay, d1		11.0		9.5	11.9		10.1		10.1	10.7	11.4	10.2
Progression Factor		1.00		1.00	1.00		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		1.1		0.1	2.2		0.1		0.1	0.5	1.0	0.2
Delay (s)		12.1		9.5	14.1		10.2		10.1	11.1	12.5	10.3
Level of Service		B		A	B		B		B	B	B	B
Approach Delay (s)		12.1			14.0			10.1			11.7	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	58.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		

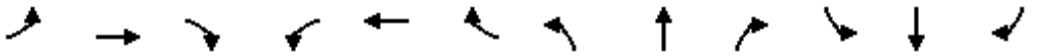
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	154	221	47	9	306	105	123	459	17	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			5.2	5.2			
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00			
Frt	1.00	0.97		1.00	0.96			1.00	0.85			
Flt Protected	0.95	1.00		0.95	1.00			0.99	1.00			
Satd. Flow (prot)	1770	1814		1770	1791			1843	1583			
Flt Permitted	0.40	1.00		0.53	1.00			0.99	1.00			
Satd. Flow (perm)	747	1814		996	1791			1843	1583			
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.62	0.62	0.62	0.92	0.92	0.92
Adj. Flow (vph)	220	316	67	13	437	150	198	740	27	0	0	0
RTOR Reduction (vph)	0	13	0	0	0	0	0	0	23	0	0	0
Lane Group Flow (vph)	220	370	0	13	587	0	0	938	4	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm			
Protected Phases		8			4			6				
Permitted Phases	8			4			6		6			
Actuated Green, G (s)	39.8	39.8		39.8	39.8			9.0	9.0			
Effective Green, g (s)	39.8	39.8		39.8	39.8			9.0	9.0			
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.15	0.15			
Clearance Time (s)	6.0	6.0		6.0	6.0			5.2	5.2			
Lane Grp Cap (vph)	495	1203		660	1188			276	237			
v/s Ratio Prot		0.20			c0.33							
v/s Ratio Perm	0.29			0.01				0.51	0.00			
v/c Ratio	0.44	0.31		0.02	0.49			3.40	0.02			
Uniform Delay, d1	4.8	4.3		3.4	5.1			25.5	21.7			
Progression Factor	1.00	1.00		2.09	2.05			1.00	1.00			
Incremental Delay, d2	2.9	0.7		0.1	1.4			1088.5	0.1			
Delay (s)	7.7	4.9		7.2	11.8			1114.0	21.9			
Level of Service	A	A		A	B			F	C			
Approach Delay (s)		5.9			11.7			1083.5			0.0	
Approach LOS		A			B			F			A	

Intersection Summary			
HCM 2000 Control Delay	487.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	103.6%	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	379	16	0	276	0	0	0	0	92	323	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5					4.9	4.9	4.9
Lane Util. Factor		1.00			1.00					1.00	0.95	1.00
Frt		0.99			1.00					1.00	1.00	0.85
Flt Protected		1.00			1.00					0.95	1.00	1.00
Satd. Flow (prot)		1853			1863					1770	3539	1583
Flt Permitted		1.00			1.00					0.95	1.00	1.00
Satd. Flow (perm)		1853			1863					1770	3539	1583
Peak-hour factor, PHF	0.87	0.87	0.87	0.85	0.85	0.85	0.92	0.92	0.92	0.86	0.86	0.86
Adj. Flow (vph)	0	436	18	0	325	0	0	0	0	107	376	91
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	0	0	0	56
Lane Group Flow (vph)	0	451	0	0	325	0	0	0	0	107	376	35
Turn Type		NA			NA					Perm	NA	Perm
Protected Phases		4			4						2	
Permitted Phases										2		2
Actuated Green, G (s)		27.0			27.0					23.0	23.0	23.0
Effective Green, g (s)		27.0			27.0					23.0	23.0	23.0
Actuated g/C Ratio		0.45			0.45					0.39	0.39	0.39
Clearance Time (s)		4.5			4.5					4.9	4.9	4.9
Lane Grp Cap (vph)		842			846					685	1370	612
v/s Ratio Prot		c0.24			0.17						c0.11	
v/s Ratio Perm										0.06		0.02
v/c Ratio		0.54			0.38					0.16	0.27	0.06
Uniform Delay, d1		11.7			10.7					11.9	12.5	11.4
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		2.4			1.3					0.5	0.5	0.2
Delay (s)		14.1			12.0					12.4	13.0	11.6
Level of Service		B			B					B	B	B
Approach Delay (s)		14.1			12.0			0.0			12.6	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	9.4
Intersection Capacity Utilization	49.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR
Lane Configurations										
Volume (vph)	220	249	7	68	159	110	104	117	693	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2	5.2		5.2	5.2	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	0.95	
Frt	1.00	1.00		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	
Satd. Flow (prot)	1770	1855		1770	1863	1583		1770	3530	
Flt Permitted	0.63	1.00		0.59	1.00	1.00		0.95	1.00	
Satd. Flow (perm)	1165	1855		1096	1863	1583		1770	3530	
Peak-hour factor, PHF	0.92	0.92	0.92	0.75	0.75	0.75	0.67	0.67	0.67	0.67
Adj. Flow (vph)	239	271	8	91	212	147	155	175	1034	19
RTOR Reduction (vph)	0	15	0	0	0	15	0	0	2	0
Lane Group Flow (vph)	239	264	0	91	212	132	0	330	1051	0
Turn Type	Perm	NA		Perm	NA	Perm	Prot	Prot	NA	
Protected Phases		4			4		2	2		
Permitted Phases	4			4		4			2	
Actuated Green, G (s)	37.8	37.8		37.8	37.8	37.8		11.8	11.8	
Effective Green, g (s)	37.8	37.8		37.8	37.8	37.8		11.8	11.8	
Actuated g/C Ratio	0.63	0.63		0.63	0.63	0.63		0.20	0.20	
Clearance Time (s)	5.2	5.2		5.2	5.2	5.2		5.2	5.2	
Lane Grp Cap (vph)	733	1168		690	1173	997		348	694	
v/s Ratio Prot		0.14			0.11			0.19		
v/s Ratio Perm	c0.21			0.08		0.08			c0.30	
v/c Ratio	0.33	0.23		0.13	0.18	0.13		0.95	1.51	
Uniform Delay, d1	5.2	4.8		4.5	4.6	4.5		23.8	24.1	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.2	0.4		0.4	0.3	0.3		36.8	238.6	
Delay (s)	6.4	5.2		4.9	5.0	4.8		60.6	262.7	
Level of Service	A	A		A	A	A		E	F	
Approach Delay (s)		5.8			4.9				214.5	
Approach LOS		A			A				F	

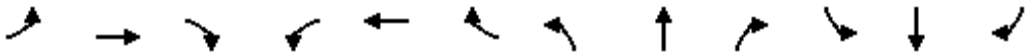
Intersection Summary			
HCM 2000 Control Delay	128.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	70.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



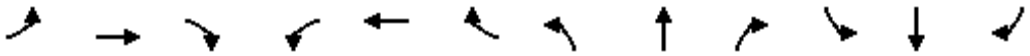
Movement	WBL	WBT	SBL	SBR	SBR2	SER	NWL	NWT
Lane Configurations								
Volume (vph)	70	118	89	257	1	9	15	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	4.9	4.9		4.6		4.0
Lane Util. Factor	1.00	1.00	1.00	0.88		1.00		1.00
Frt	1.00	1.00	1.00	0.85		0.86		1.00
Flt Protected	0.95	1.00	0.95	1.00		1.00		0.98
Satd. Flow (prot)	1770	1863	1770	2787		1611		1829
Flt Permitted	0.95	1.00	0.95	1.00		1.00		0.98
Satd. Flow (perm)	1770	1863	1770	2787		1611		1829
Peak-hour factor, PHF	0.61	0.61	0.85	0.85	0.85	0.92	0.92	0.92
Adj. Flow (vph)	115	193	105	302	1	10	16	28
RTOR Reduction (vph)	0	0	0	114	0	8	0	0
Lane Group Flow (vph)	115	193	105	189	0	2	0	44
Turn Type	Perm	NA	Prot	Perm		Perm	Perm	NA
Protected Phases		4	2					1
Permitted Phases	4			2		4	1	
Actuated Green, G (s)	7.6	7.6	8.4	8.4		7.6		1.9
Effective Green, g (s)	7.6	7.6	8.4	8.4		7.6		1.9
Actuated g/C Ratio	0.24	0.24	0.27	0.27		0.24		0.06
Clearance Time (s)	4.6	4.6	4.9	4.9		4.6		4.0
Vehicle Extension (s)	4.0	4.0	4.0	4.0		4.0		2.0
Lane Grp Cap (vph)	428	450	473	745		389		110
v/s Ratio Prot		c0.10	0.06					
v/s Ratio Perm	0.06			c0.07		0.00		0.02
v/c Ratio	0.27	0.43	0.22	0.25		0.01		0.40
Uniform Delay, d1	9.6	10.1	9.0	9.0		9.0		14.2
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00
Incremental Delay, d2	0.5	0.9	0.3	0.2		0.0		0.9
Delay (s)	10.1	11.0	9.3	9.3		9.0		15.1
Level of Service	B	B	A	A		A		B
Approach Delay (s)		10.6	9.3					15.1
Approach LOS		B	A					B

Intersection Summary			
HCM 2000 Control Delay	10.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	31.4	Sum of lost time (s)	16.5
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	79	403	17	0	0	0	0	65	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.2						4.2	
Lane Util. Factor					0.95						1.00	
Frt					0.99						0.97	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					3442						1742	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					3442						1742	
Peak-hour factor, PHF	0.92	0.92	0.92	0.74	0.74	0.74	0.92	0.92	0.92	0.65	0.65	0.65
Adj. Flow (vph)	0	0	0	107	545	23	0	0	0	0	100	32
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	0	0	19	0
Lane Group Flow (vph)	0	0	0	0	645	0	0	0	0	0	113	0
Heavy Vehicles (%)	0%	0%	0%	11%	2%	5%	0%	0%	0%	0%	6%	4%
Turn Type				Perm	NA						NA	
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					30.8						20.8	
Effective Green, g (s)					30.8						20.8	
Actuated g/C Ratio					0.51						0.35	
Clearance Time (s)					4.2						4.2	
Lane Grp Cap (vph)					1766						603	
v/s Ratio Prot											c0.06	
v/s Ratio Perm					0.19							
v/c Ratio					0.37						0.19	
Uniform Delay, d1					8.7						13.7	
Progression Factor					1.00						1.00	
Incremental Delay, d2					0.6						0.7	
Delay (s)					9.3						14.4	
Level of Service					A						B	
Approach Delay (s)		0.0			9.3			0.0			14.4	
Approach LOS		A			A			A			B	

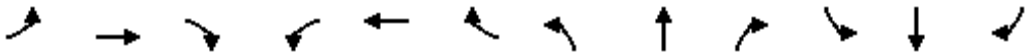
Intersection Summary			
HCM 2000 Control Delay	10.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	50	409	38	119	418	0	0	61	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.2	4.2	4.2	4.2			4.2	
Lane Util. Factor					0.95	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.99	
Flt Protected					0.99	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					3520	1583	1770	1863			1845	
Flt Permitted					0.99	1.00	0.71	1.00			1.00	
Satd. Flow (perm)					3520	1583	1324	1863			1845	
Peak-hour factor, PHF	0.92	0.92	0.92	0.80	0.80	0.80	0.81	0.81	0.81	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	62	511	48	147	516	0	0	66	5
RTOR Reduction (vph)	0	0	0	0	0	30	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	0	573	18	147	516	0	0	68	0
Turn Type				Perm	NA	Perm	Perm	NA			NA	
Protected Phases					4			6			2	
Permitted Phases				4		4	6					
Actuated Green, G (s)					22.0	22.0	28.0	28.0			28.0	
Effective Green, g (s)					22.0	22.0	28.0	28.0			28.0	
Actuated g/C Ratio					0.38	0.38	0.48	0.48			0.48	
Clearance Time (s)					4.2	4.2	4.2	4.2			4.2	
Lane Grp Cap (vph)					1326	596	634	893			884	
v/s Ratio Prot								c0.28			0.04	
v/s Ratio Perm					0.16	0.01	0.11					
v/c Ratio					0.43	0.03	0.23	0.58			0.08	
Uniform Delay, d1					13.5	11.5	8.9	10.9			8.2	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					1.0	0.1	0.9	2.7			0.2	
Delay (s)					14.6	11.6	9.8	13.7			8.4	
Level of Service					B	B	A	B			A	
Approach Delay (s)		0.0			14.3			12.8			8.4	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	58.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		

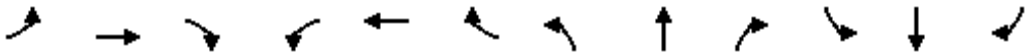
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	30	531	36	75	46	0	0	44	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.2	4.2		4.2			4.2	
Lane Util. Factor					0.95	1.00		1.00			1.00	
Frt					1.00	0.85		1.00			0.91	
Flt Protected					1.00	1.00		0.97			1.00	
Satd. Flow (prot)					3530	1583		1807			1703	
Flt Permitted					1.00	1.00		0.78			1.00	
Satd. Flow (perm)					3530	1583		1449			1703	
Peak-hour factor, PHF	0.92	0.92	0.92	0.78	0.78	0.78	0.69	0.69	0.69	0.91	0.91	0.91
Adj. Flow (vph)	0	0	0	38	681	46	109	67	0	0	48	84
RTOR Reduction (vph)	0	0	0	0	0	30	0	0	0	0	22	0
Lane Group Flow (vph)	0	0	0	0	719	16	0	176	0	0	110	0
Turn Type				Perm	NA	Perm	Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4		4	2					
Actuated Green, G (s)					17.8	17.8		33.8			33.8	
Effective Green, g (s)					17.8	17.8		33.8			33.8	
Actuated g/C Ratio					0.30	0.30		0.56			0.56	
Clearance Time (s)					4.2	4.2		4.2			4.2	
Lane Grp Cap (vph)					1047	469		816			959	
v/s Ratio Prot											0.06	
v/s Ratio Perm					0.20	0.01		c0.12				
v/c Ratio					0.69	0.04		0.22			0.11	
Uniform Delay, d1					18.6	15.0		6.5			6.1	
Progression Factor					1.71	2.94		1.43			1.00	
Incremental Delay, d2					3.0	0.1		0.6			0.2	
Delay (s)					34.8	44.3		9.9			6.4	
Level of Service					C	D		A			A	
Approach Delay (s)		0.0			35.4			9.9			6.4	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	48.7%	ICU Level of Service	A
Analysis Period (min)	15		

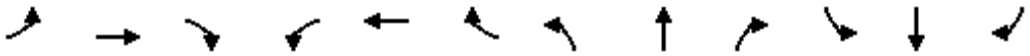
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	39	722	84	42	159	0	0	141	337
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.4	5.4		5.4			5.4	
Lane Util. Factor					0.91	1.00		0.95			0.95	
Frt					1.00	0.85		1.00			0.89	
Flt Protected					1.00	1.00		0.99			1.00	
Satd. Flow (prot)					5072	1583		3503			3165	
Flt Permitted					1.00	1.00		0.79			1.00	
Satd. Flow (perm)					5072	1583		2813			3165	
Peak-hour factor, PHF	0.92	0.92	0.92	0.74	0.74	0.74	0.85	0.85	0.85	0.78	0.78	0.78
Adj. Flow (vph)	0	0	0	53	976	114	49	187	0	0	181	432
RTOR Reduction (vph)	0	0	0	0	0	81	0	0	0	0	5	0
Lane Group Flow (vph)	0	0	0	0	1029	33	0	236	0	0	608	0
Turn Type				Perm	NA	Perm	Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4		4	2					
Actuated Green, G (s)					17.4	17.4		31.8			31.8	
Effective Green, g (s)					17.4	17.4		31.8			31.8	
Actuated g/C Ratio					0.29	0.29		0.53			0.53	
Clearance Time (s)					5.4	5.4		5.4			5.4	
Lane Grp Cap (vph)					1470	459		1490			1677	
v/s Ratio Prot											c0.19	
v/s Ratio Perm					0.20	0.02		0.08				
v/c Ratio					0.70	0.07		0.16			0.36	
Uniform Delay, d1					19.0	15.4		7.2			8.2	
Progression Factor					1.00	1.00		1.00			1.00	
Incremental Delay, d2					2.8	0.3		0.2			0.6	
Delay (s)					21.8	15.7		7.5			8.8	
Level of Service					C	B		A			A	
Approach Delay (s)		0.0			21.2			7.5			8.8	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		

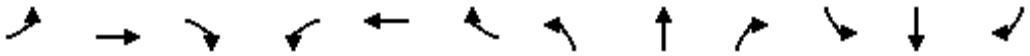
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	0	409	696	54	246	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.80	0.80	0.80	0.89	0.89	0.89	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	511	870	61	276	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					262							
pX, platoon unblocked												
vC, conflicting volume	1381			0			170	1381	0	649	511	170
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1381			0			170	1381	0	649	511	170
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			92	0	100	0	100	100
cM capacity (veh/h)	503			1636			780	145	1091	0	469	850

Direction, Lane #	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2
Volume Total	170	170	170	870	153	184
Volume Left	0	0	0	0	61	0
Volume Right	0	0	0	870	0	0
cSH	1700	1700	1700	1700	215	145
Volume to Capacity	0.10	0.10	0.10	0.51	0.71	1.27
Queue Length 95th (ft)	0	0	0	0	116	277
Control Delay (s)	0.0	0.0	0.0	0.0	54.7	223.1
Lane LOS					F	F
Approach Delay (s)	0.0				146.7	
Approach LOS					F	

Intersection Summary				
Average Delay	28.8			
Intersection Capacity Utilization	58.1%	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 (veh/h)	0	0	0	173	290	0	0	0	0	0	171	232
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.92	0.92	0.92	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	201	337	0	0	0	0	0	190	258
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					535							
pX, platoon unblocked												
vC, conflicting volume	337			0			868	740	0	740	740	112
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	337			0			868	740	0	740	740	112
tC, single (s)	4.1			4.2			7.5	6.5	6.9	7.5	6.6	7.0
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			87			100	100	100	100	36	72
cM capacity (veh/h)	1233			1607			80	304	1091	279	297	916

Direction, Lane #	WB 1	WB 2	WB 3	SB 1	SB 2
Volume Total	269	135	135	127	321
Volume Left	201	0	0	0	0
Volume Right	0	0	0	0	258
cSH	1607	1700	1700	297	649
Volume to Capacity	0.13	0.08	0.08	0.43	0.49
Queue Length 95th (ft)	11	0	0	51	69
Control Delay (s)	5.9	0.0	0.0	25.9	15.9
Lane LOS	A			D	C
Approach Delay (s)	2.9			18.7	
Approach LOS				C	

Intersection Summary				
Average Delay	10.1			
Intersection Capacity Utilization	28.4%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	0	5	91	232	176	22	88	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.94	0.94	0.94	0.74	0.74	0.74	0.92	0.92	0.92
Hourly flow rate (vph)	3	0	7	97	247	187	30	119	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1199							
pX, platoon unblocked												
vC, conflicting volume	247			7			449	449	3	509	452	247
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	247			7			449	449	3	509	452	247
tC, single (s)	4.1			4.1			7.2	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			94			94	75	100	100	100	100
cM capacity (veh/h)	1331			1621			484	474	1086	368	475	797

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	9	344	187	149
Volume Left	3	97	0	30
Volume Right	7	0	187	0
cSH	1331	1621	1700	476
Volume to Capacity	0.00	0.06	0.11	0.31
Queue Length 95th (ft)	0	5	0	33
Control Delay (s)	2.2	2.4	0.0	16.0
Lane LOS	A	A		C
Approach Delay (s)	2.2	1.6		16.0
Approach LOS				C

Intersection Summary			
Average Delay	4.7		
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	132	7	0	0	0	0	0	9	193	130	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.92	0.92	0.92	0.75	0.75	0.75	0.89	0.89	0.89
Hourly flow rate (vph)	0	148	8	0	0	0	0	0	12	217	146	19
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	595	601	156	662	599	0	165			12		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	595	601	156	662	599	0	165			12		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	59	99	100	100	100	100			86		
cM capacity (veh/h)	375	360	895	230	361	1091	1425			1594		

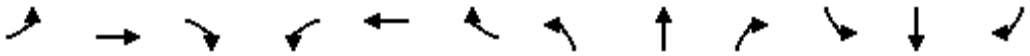
Direction, Lane #	EB 1	NB 1	SB 1	SB 2	SB 3
Volume Total	156	12	108	108	165
Volume Left	0	0	108	108	0
Volume Right	8	12	0	0	19
cSH	371	1700	1594	1594	1700
Volume to Capacity	0.42	0.01	0.14	0.14	0.10
Queue Length 95th (ft)	51	0	12	12	0
Control Delay (s)	21.6	0.0	7.6	7.6	0.0
Lane LOS	C		A	A	
Approach Delay (s)	21.6	0.0	4.3		
Approach LOS	C				

Intersection Summary				
Average Delay	9.1			
Intersection Capacity Utilization	26.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	434	47	0	0	0	0	0	0	149	195	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.80	0.80	0.80
Hourly flow rate (vph)	0	511	55	0	0	0	0	0	0	186	244	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					545							
pX, platoon unblocked												
vC, conflicting volume	0			566			660	538	198	170	566	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			566			660	538	198	170	566	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.6	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	76	43	100
cM capacity (veh/h)	1636			1016			193	452	816	777	428	1091

Direction, Lane #	EB 1	EB 2	EB 3	SB 1	SB 2
Volume Total	204	204	157	268	162
Volume Left	0	0	0	186	0
Volume Right	0	0	55	0	0
cSH	1700	1700	1700	623	428
Volume to Capacity	0.12	0.12	0.09	0.43	0.38
Queue Length 95th (ft)	0	0	0	54	44
Control Delay (s)	0.0	0.0	0.0	15.1	18.5
Lane LOS				C	C
Approach Delay (s)	0.0			16.3	
Approach LOS				C	

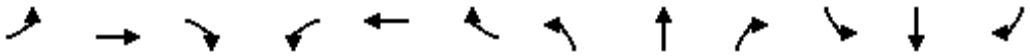
Intersection Summary				
Average Delay	7.1			
Intersection Capacity Utilization	25.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	254	329	0	0	0	0	0	46	85	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.83	0.83	0.83	0.92	0.92	0.92
Hourly flow rate (vph)	299	387	0	0	0	0	0	55	102	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					269							
pX, platoon unblocked												
vC, conflicting volume	0			387			985	985	129	857	985	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			387			985	985	129	857	985	0
tC, single (s)	4.1			4.1			7.5	6.6	7.3	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.1	3.5	3.5	4.0	3.3
p0 queue free %	82			100			100	72	88	100	100	100
cM capacity (veh/h)	1622			1182			176	196	840	151	204	1091

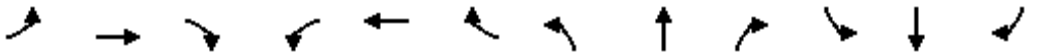
Direction, Lane #	EB 1	EB 2	EB 3	NB 1	NB 2
Volume Total	376	155	155	37	121
Volume Left	299	0	0	0	0
Volume Right	0	0	0	0	102
cSH	1622	1700	1700	196	559
Volume to Capacity	0.18	0.09	0.09	0.19	0.22
Queue Length 95th (ft)	17	0	0	17	20
Control Delay (s)	6.4	0.0	0.0	27.6	13.2
Lane LOS	A			D	B
Approach Delay (s)	3.5			16.6	
Approach LOS				C	

Intersection Summary				
Average Delay	6.0			
Intersection Capacity Utilization	24.8%	ICU Level of Service		A
Analysis Period (min)	15			



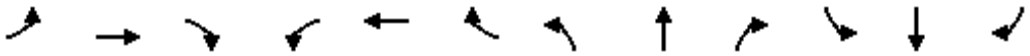
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	99	303	20	0	0	0	0	114	22	32	156	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			0.95	
Frt		0.99						0.98			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		4991						3452			3509	
Flt Permitted		0.99						1.00			0.89	
Satd. Flow (perm)		4991						3452			3150	
Peak-hour factor, PHF	0.89	0.89	0.89	0.92	0.92	0.92	0.77	0.77	0.77	0.85	0.85	0.85
Adj. Flow (vph)	111	340	22	0	0	0	0	148	29	38	184	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	20	0	0	0	0
Lane Group Flow (vph)	0	466	0	0	0	0	0	157	0	0	222	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						8			4	
Permitted Phases	2									4		
Actuated Green, G (s)		26.3						14.8			14.8	
Effective Green, g (s)		26.3						14.8			14.8	
Actuated g/C Ratio		0.54						0.30			0.30	
Clearance Time (s)		4.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		2673						1040			949	
v/s Ratio Prot								0.05				
v/s Ratio Perm		0.09									c0.07	
v/c Ratio		0.17						0.15			0.23	
Uniform Delay, d1		5.8						12.6			12.9	
Progression Factor		1.00						1.00			1.00	
Incremental Delay, d2		0.0						0.1			0.1	
Delay (s)		5.9						12.6			13.0	
Level of Service		A						B			B	
Approach Delay (s)		5.9			0.0			12.6			13.0	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	9.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.20		
Actuated Cycle Length (s)	49.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



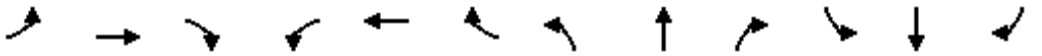
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	237	29	0	0	0	0	62	37	63	29	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2	4.2					4.2	4.2	4.6	4.6	
Lane Util. Factor	1.00	0.95	1.00					1.00	1.00	0.95	0.95	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	0.98	
Satd. Flow (prot)	1770	3539	1583					1863	1583	1681	1735	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.68	0.83	
Satd. Flow (perm)	1770	3539	1583					1863	1583	1204	1462	
Peak-hour factor, PHF	0.95	0.95	0.95	0.92	0.92	0.92	0.52	0.52	0.52	0.85	0.85	0.85
Adj. Flow (vph)	31	249	31	0	0	0	0	119	71	74	34	0
RTOR Reduction (vph)	0	0	15	0	0	0	0	0	62	0	0	0
Lane Group Flow (vph)	31	249	16	0	0	0	0	119	9	51	57	0
Turn Type	Perm	NA	Perm					NA	Perm	Perm	NA	
Protected Phases		8						1			2	
Permitted Phases	8		8						1	2		
Actuated Green, G (s)	31.0	31.0	31.0					7.9	7.9	8.1	8.1	
Effective Green, g (s)	31.0	31.0	31.0					7.9	7.9	8.1	8.1	
Actuated g/C Ratio	0.52	0.52	0.52					0.13	0.13	0.13	0.13	
Clearance Time (s)	4.2	4.2	4.2					4.2	4.2	4.6	4.6	
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0	3.8	3.8	
Lane Grp Cap (vph)	914	1828	817					245	208	162	197	
v/s Ratio Prot		c0.07						c0.06				
v/s Ratio Perm	0.02		0.01						0.01	c0.04	0.04	
v/c Ratio	0.03	0.14	0.02					0.49	0.04	0.31	0.29	
Uniform Delay, d1	7.1	7.5	7.1					24.2	22.8	23.4	23.4	
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.90	0.90	
Incremental Delay, d2	0.1	0.2	0.0					0.6	0.0	1.4	1.0	
Delay (s)	7.2	7.7	7.1					24.7	22.8	22.4	22.0	
Level of Service	A	A	A					C	C	C	C	
Approach Delay (s)		7.6			0.0			24.0			22.2	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	263	78	0	0	0	0	491	42	9	102	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2						4.2		4.2	4.2	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		0.97						0.99		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		3412						1843		1770	1863	
Flt Permitted		0.99						1.00		0.25	1.00	
Satd. Flow (perm)		3412						1843		473	1863	
Peak-hour factor, PHF	0.76	0.76	0.76	0.92	0.92	0.92	0.86	0.86	0.86	0.87	0.87	0.87
Adj. Flow (vph)	58	346	103	0	0	0	0	571	49	10	117	0
RTOR Reduction (vph)	0	32	0	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	475	0	0	0	0	0	615	0	10	117	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		8						6			2	
Permitted Phases	8									2		
Actuated Green, G (s)		22.1						28.9		28.9	28.9	
Effective Green, g (s)		22.1						28.9		28.9	28.9	
Actuated g/C Ratio		0.37						0.49		0.49	0.49	
Clearance Time (s)		4.2						4.2		4.2	4.2	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		1269						896		230	906	
v/s Ratio Prot								c0.33			0.06	
v/s Ratio Perm		0.14								0.02		
v/c Ratio		0.37						0.69		0.04	0.13	
Uniform Delay, d1		13.6						11.8		8.0	8.4	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.2						2.2		0.1	0.1	
Delay (s)		13.8						14.0		8.1	8.4	
Level of Service		B						B		A	A	
Approach Delay (s)		13.8			0.0			14.0			8.4	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

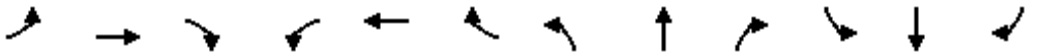


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	323	51	0	0	0	0	0	0	22	148	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.2							4.2	4.2	
Lane Util. Factor		0.95	1.00							1.00	0.95	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		3610	1583							1805	3406	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		3610	1583							1805	3406	
Peak-hour factor, PHF	0.80	0.80	0.80	0.92	0.92	0.92	0.92	0.92	0.92	0.75	0.75	0.75
Adj. Flow (vph)	0	404	64	0	0	0	0	0	0	29	197	0
RTOR Reduction (vph)	0	0	31	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	0	404	33	0	0	0	0	0	0	10	197	0
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	6%	0%
Turn Type		NA	Perm							Perm	NA	
Protected Phases		8									2	
Permitted Phases			8							2		
Actuated Green, G (s)		30.8	30.8							20.8	20.8	
Effective Green, g (s)		30.8	30.8							20.8	20.8	
Actuated g/C Ratio		0.51	0.51							0.35	0.35	
Clearance Time (s)		4.2	4.2							4.2	4.2	
Lane Grp Cap (vph)		1853	812							625	1180	
v/s Ratio Prot		c0.11									c0.06	
v/s Ratio Perm			0.02							0.01		
v/c Ratio		0.22	0.04							0.02	0.17	
Uniform Delay, d1		8.0	7.3							12.9	13.6	
Progression Factor		1.00	1.00							1.70	1.25	
Incremental Delay, d2		0.3	0.1							0.0	0.3	
Delay (s)		8.3	7.3							22.0	17.2	
Level of Service		A	A							C	B	
Approach Delay (s)		8.1			0.0			0.0			17.8	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.20		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	383	105	0	0	0	15	0	529	29	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2				4.2		4.2				
Lane Util. Factor	0.95	0.95				1.00		0.95				
Frt	1.00	1.00				0.86		0.99				
Flt Protected	0.95	0.97				1.00		1.00				
Satd. Flow (prot)	1681	1735				1644		3537				
Flt Permitted	0.95	0.97				1.00		1.00				
Satd. Flow (perm)	1681	1735				1644		3537				
Peak-hour factor, PHF	0.84	0.84	0.84	0.94	0.94	0.94	0.76	0.76	0.76	0.92	0.92	0.92
Adj. Flow (vph)	456	125	0	0	0	16	0	696	38	0	0	0
RTOR Reduction (vph)	73	73	0	0	0	9	0	7	0	0	0	0
Lane Group Flow (vph)	214	221	0	0	0	7	0	727	0	0	0	0
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%	0%	1%	6%	0%	0%	0%
Turn Type	Perm	NA				Perm		NA				
Protected Phases		2						4				
Permitted Phases	2					2						
Actuated Green, G (s)	25.0	25.0				25.0		25.0				
Effective Green, g (s)	25.0	25.0				25.0		25.0				
Actuated g/C Ratio	0.43	0.43				0.43		0.43				
Clearance Time (s)	4.2	4.2				4.2		4.2				
Lane Grp Cap (vph)	719	742				703		1514				
v/s Ratio Prot								c0.21				
v/s Ratio Perm	0.13	0.13				0.00						
v/c Ratio	0.30	0.30				0.01		0.48				
Uniform Delay, d1	10.9	10.9				9.6		12.0				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	1.1	1.0				0.0		1.1				
Delay (s)	12.0	12.0				9.6		13.1				
Level of Service	B	B				A		B				
Approach Delay (s)		12.0			9.6			13.1			0.0	
Approach LOS		B			A			B			A	

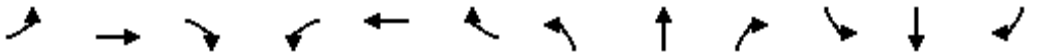
Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	58.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	48.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	169	386	13	39	338	42	7	56	19	46	63	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.1	4.2		4.1	4.2	4.2	4.2	4.2		4.2	4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1787	3491		1752	3471	1509	1805	1801		1805	1900	1615
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.72	1.00		0.70	1.00	1.00
Satd. Flow (perm)	1787	3491		1752	3471	1509	1360	1801		1321	1900	1615
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.79	0.79	0.79	1.00	1.00	1.00
Adj. Flow (vph)	192	439	15	44	384	48	9	71	24	46	63	81
RTOR Reduction (vph)	0	2	0	0	0	30	0	19	0	0	0	71
Lane Group Flow (vph)	192	452	0	44	384	18	9	76	0	46	63	10
Heavy Vehicles (%)	1%	3%	0%	3%	4%	7%	0%	2%	0%	0%	0%	0%
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	3	8		7	4			6			2	
Permitted Phases						4	6			2		2
Actuated Green, G (s)	24.9	49.4		4.5	29.0	29.0	9.6	9.6		9.6	9.6	9.6
Effective Green, g (s)	24.9	49.4		4.5	29.0	29.0	9.6	9.6		9.6	9.6	9.6
Actuated g/C Ratio	0.33	0.65		0.06	0.38	0.38	0.13	0.13		0.13	0.13	0.13
Clearance Time (s)	4.1	4.2		4.1	4.2	4.2	4.2	4.2		4.2	4.2	4.2
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	585	2269		103	1324	575	171	227		166	240	204
v/s Ratio Prot	c0.11	0.13		0.03	c0.11			c0.04			0.03	
v/s Ratio Perm						0.01	0.01			0.03		0.01
v/c Ratio	0.33	0.20		0.43	0.29	0.03	0.05	0.33		0.28	0.26	0.05
Uniform Delay, d1	19.2	5.3		34.5	16.3	14.7	29.2	30.3		30.1	30.0	29.2
Progression Factor	1.00	1.00		0.84	1.08	3.90	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.5	0.2		1.0	0.5	0.1	0.2	1.2		1.2	0.8	0.1
Delay (s)	20.7	5.5		29.9	18.2	57.4	29.4	31.5		31.3	30.8	29.3
Level of Service	C	A		C	B	E	C	C		C	C	C
Approach Delay (s)		10.1			23.2			31.3			30.3	
Approach LOS		B			C			C			C	

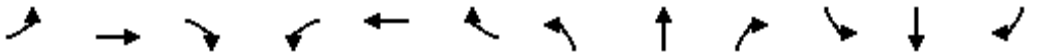
Intersection Summary			
HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



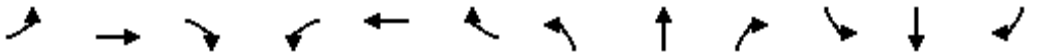
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	435	50	104	417	109	98	90	77	141	99	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.97		1.00	0.93		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3484		1770	3429		1770	1733		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	3484		1770	3429		1770	1733		1770	1863	1583
Peak-hour factor, PHF	0.82	0.82	0.82	0.94	0.94	0.94	0.87	0.87	0.87	0.72	0.72	0.72
Adj. Flow (vph)	17	530	61	111	444	116	113	103	89	196	138	35
RTOR Reduction (vph)	0	8	0	0	19	0	0	42	0	0	0	28
Lane Group Flow (vph)	17	583	0	111	541	0	113	150	0	196	138	7
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	1.3	27.3		8.1	34.1		8.2	11.4		12.8	16.0	16.0
Effective Green, g (s)	1.3	27.3		8.1	34.1		8.2	11.4		12.8	16.0	16.0
Actuated g/C Ratio	0.02	0.36		0.11	0.45		0.11	0.15		0.17	0.21	0.21
Clearance Time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	4.2
Vehicle Extension (s)	2.0	6.0		2.0	6.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	30	1251		188	1538		190	259		298	392	333
v/s Ratio Prot	0.01	c0.17		c0.06	0.16		0.06	c0.09		c0.11	0.07	
v/s Ratio Perm												0.00
v/c Ratio	0.57	0.47		0.59	0.35		0.59	0.58		0.66	0.35	0.02
Uniform Delay, d1	37.1	18.7		32.4	13.7		32.3	30.1		29.6	25.6	23.8
Progression Factor	0.94	0.88		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	13.7	1.2		3.3	0.6		3.3	2.1		4.0	0.2	0.0
Delay (s)	48.4	17.8		35.7	14.3		35.6	32.2		33.5	25.8	23.8
Level of Service	D	B		D	B		D	C		C	C	C
Approach Delay (s)		18.6			17.9			33.5			29.7	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	16.4
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



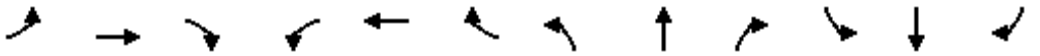
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	550	101	189	430	0	0	0	0	140	180	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		5.2	5.2					4.7	4.7	4.7
Lane Util. Factor		0.95		1.00	0.95					1.00	1.00	1.00
Frt		0.98		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (prot)		3457		1770	3539					1770	1863	1583
Flt Permitted		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (perm)		3457		1770	3539					1770	1863	1583
Peak-hour factor, PHF	0.91	0.91	0.91	0.94	0.94	0.94	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	0	604	111	201	457	0	0	0	0	157	202	225
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	0	0	156
Lane Group Flow (vph)	0	704	0	201	457	0	0	0	0	157	202	69
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Actuated Green, G (s)		23.8		13.3	42.3					22.9	22.9	22.9
Effective Green, g (s)		23.8		13.3	42.3					22.9	22.9	22.9
Actuated g/C Ratio		0.32		0.18	0.56					0.30	0.30	0.30
Clearance Time (s)		5.2		5.2	5.2					4.7	4.7	4.7
Vehicle Extension (s)		0.2		2.0	0.2					6.2	6.2	6.2
Lane Grp Cap (vph)		1095		313	1993					539	568	482
v/s Ratio Prot		c0.20		c0.11	0.13						c0.11	
v/s Ratio Perm										0.09		0.04
v/c Ratio		0.64		0.64	0.23					0.29	0.36	0.14
Uniform Delay, d1		22.0		28.7	8.2					19.9	20.3	19.0
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		2.9		3.4	0.3					0.9	1.1	0.4
Delay (s)		24.9		32.0	8.5					20.8	21.5	19.4
Level of Service		C		C	A					C	C	B
Approach Delay (s)		24.9			15.7			0.0			20.5	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	75.1	Sum of lost time (s)	15.1
Intersection Capacity Utilization	67.0%	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)	306	384	0	0	524	501	95	108	167	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	5.2			5.2	5.2		5.4	5.4			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.95	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.98	1.00			
Satd. Flow (prot)	1770	3539			3539	1583		3459	1583			
Flt Permitted	0.95	1.00			1.00	1.00		0.98	1.00			
Satd. Flow (perm)	1770	3539			3539	1583		3459	1583			
Peak-hour factor, PHF	0.82	0.82	0.82	0.86	0.86	0.86	0.86	0.86	0.86	0.92	0.92	0.92
Adj. Flow (vph)	373	468	0	0	609	583	110	126	194	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	244	0	0	162	0	0	0
Lane Group Flow (vph)	373	468	0	0	609	339	0	236	32	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	22.2	52.9			26.5	26.5		12.5	12.5			
Effective Green, g (s)	22.2	52.9			26.5	26.5		12.5	12.5			
Actuated g/C Ratio	0.29	0.70			0.35	0.35		0.16	0.16			
Clearance Time (s)	4.2	5.2			5.2	5.2		5.4	5.4			
Vehicle Extension (s)	3.5	0.2			0.2	0.2		5.0	5.0			
Lane Grp Cap (vph)	517	2463			1233	551		568	260			
v/s Ratio Prot	c0.21	0.13			0.17							
v/s Ratio Perm						c0.21		0.07	0.02			
v/c Ratio	0.72	0.19			0.49	0.62		0.42	0.12			
Uniform Delay, d1	24.1	4.0			19.5	20.5		28.5	27.1			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	5.1	0.2			1.4	5.1		1.0	0.4			
Delay (s)	29.2	4.2			20.9	25.6		29.5	27.5			
Level of Service	C	A			C	C		C	C			
Approach Delay (s)		15.3			23.2			28.6			0.0	
Approach LOS		B			C			C			A	

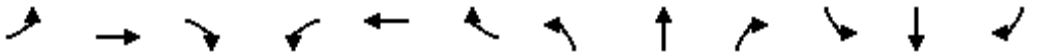
Intersection Summary			
HCM 2000 Control Delay	21.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	14.8
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	98	418	33	20	884	25	59	47	13	22	63	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frt	1.00	0.99		1.00	1.00			0.98			0.93	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1752	3428		1805	3504			3421			3235	
Flt Permitted	0.22	1.00		0.47	1.00			0.74			0.90	
Satd. Flow (perm)	415	3428		884	3504			2607			2937	
Peak-hour factor, PHF	0.89	0.89	0.89	0.85	0.85	0.85	0.87	0.87	0.87	0.84	0.84	0.84
Adj. Flow (vph)	110	470	37	24	1040	29	68	54	15	26	75	98
RTOR Reduction (vph)	0	5	0	0	2	0	0	12	0	0	25	0
Lane Group Flow (vph)	110	502	0	24	1067	0	0	125	0	0	174	0
Heavy Vehicles (%)	3%	4%	6%	0%	2%	24%	1%	2%	0%	13%	0%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	30.7	30.7		30.7	30.7			11.8			11.8	
Effective Green, g (s)	30.7	30.7		30.7	30.7			11.8			11.8	
Actuated g/C Ratio	0.58	0.58		0.58	0.58			0.22			0.22	
Clearance Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	240	1989		513	2033			581			655	
v/s Ratio Prot		0.15			c0.30							
v/s Ratio Perm	0.27			0.03				0.05			c0.06	
v/c Ratio	0.46	0.25		0.05	0.52			0.22			0.27	
Uniform Delay, d1	6.3	5.5		4.8	6.7			16.8			17.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.4	0.1		0.0	0.2			0.2			0.2	
Delay (s)	7.7	5.5		4.8	6.9			17.0			17.2	
Level of Service	A	A		A	A			B			B	
Approach Delay (s)		5.9			6.9			17.0			17.2	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	52.9	Sum of lost time (s)	10.4
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

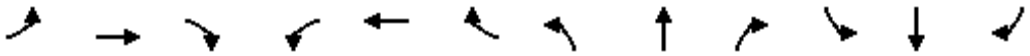
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	365	18	0	718	43	33	148	30	21	71	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2			5.2	5.2		5.5		5.5	5.5	
Lane Util. Factor		0.95			0.95	1.00		0.95		1.00	0.95	
Frt		0.99			1.00	0.85		0.98		1.00	0.94	
Flt Protected		1.00			1.00	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		3450			3539	1583		3437		1770	3315	
Flt Permitted		1.00			1.00	1.00		0.90		0.60	1.00	
Satd. Flow (perm)		3450			3539	1583		3102		1114	3315	
Peak-hour factor, PHF	0.90	0.90	0.90	0.79	0.79	0.79	0.85	0.85	0.85	0.88	0.88	0.88
Adj. Flow (vph)	0	406	20	0	909	54	39	174	35	24	81	59
RTOR Reduction (vph)	0	4	0	0	0	32	0	19	0	0	15	0
Lane Group Flow (vph)	0	422	0	0	909	22	0	229	0	24	125	0
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA			NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases						2	4			4		
Actuated Green, G (s)		31.3			31.3	31.3		34.0		34.0	34.0	
Effective Green, g (s)		31.3			31.3	31.3		34.0		34.0	34.0	
Actuated g/C Ratio		0.41			0.41	0.41		0.45		0.45	0.45	
Clearance Time (s)		5.2			5.2	5.2		5.5		5.5	5.5	
Vehicle Extension (s)		5.0			5.0	5.0		2.0		2.0	2.0	
Lane Grp Cap (vph)		1420			1457	651		1387		498	1483	
v/s Ratio Prot		0.12			c0.26						0.04	
v/s Ratio Perm						0.01		c0.07		0.02		
v/c Ratio		0.30			0.62	0.03		0.16		0.05	0.08	
Uniform Delay, d1		15.0			17.7	13.3		12.5		11.9	12.1	
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.5			2.0	0.1		0.0		0.0	0.0	
Delay (s)		15.5			19.7	13.4		12.5		11.9	12.1	
Level of Service		B			B	B		B		B	B	
Approach Delay (s)		15.5			19.4			12.5			12.0	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	10.7
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		

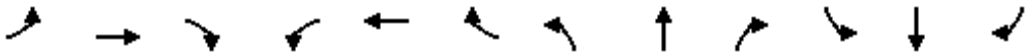
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	276	64	61	317	48	126	359	90	62	176	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	1.00	
Frt	1.00	0.97		1.00	0.98		1.00	0.97		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3439		1770	3499		1770	3433		1770	1755	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3439		1770	3499		1770	3433		1770	1755	
Peak-hour factor, PHF	0.99	0.99	0.99	0.83	0.83	0.83	0.92	0.92	0.92	0.87	0.87	0.87
Adj. Flow (vph)	121	279	65	73	382	58	137	390	98	71	202	126
RTOR Reduction (vph)	0	18	0	0	12	0	0	15	0	0	16	0
Lane Group Flow (vph)	121	326	0	73	428	0	137	473	0	71	312	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	12.9	29.4		8.7	25.2		13.9	48.1		8.6	42.8	
Effective Green, g (s)	12.9	29.4		8.7	25.2		13.9	48.1		8.6	42.8	
Actuated g/C Ratio	0.12	0.26		0.08	0.22		0.12	0.43		0.08	0.38	
Clearance Time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Vehicle Extension (s)	3.0	5.0		3.0	5.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	203	902		137	787		219	1474		135	670	
v/s Ratio Prot	c0.07	0.09		0.04	c0.12		c0.08	0.14		0.04	c0.18	
v/s Ratio Perm												
v/c Ratio	0.60	0.36		0.53	0.54		0.63	0.32		0.53	0.47	
Uniform Delay, d1	47.1	33.7		49.7	38.3		46.6	21.1		49.7	26.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.6	0.5		3.9	1.4		5.5	0.6		3.7	2.3	
Delay (s)	51.7	34.2		53.6	39.7		52.1	21.7		53.4	28.3	
Level of Service	D	C		D	D		D	C		D	C	
Approach Delay (s)		38.7			41.7			28.4			32.8	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	35.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	112.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

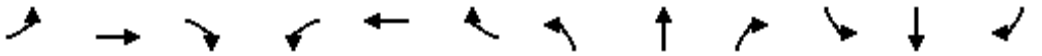
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	400	125	49	408	0	0	0	0	47	195	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		5.2	5.2					5.2	5.2	
Lane Util. Factor		0.95		1.00	0.95					1.00	0.95	
Frt		0.96		1.00	1.00					1.00	0.98	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3413		1770	3574					1770	3455	
Flt Permitted		1.00		0.41	1.00					0.95	1.00	
Satd. Flow (perm)		3413		756	3574					1770	3455	
Peak-hour factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91	0.92	0.92	0.92	0.82	0.82	0.82
Adj. Flow (vph)	0	494	154	54	448	0	0	0	0	57	238	45
RTOR Reduction (vph)	0	51	0	0	0	0	0	0	0	0	27	0
Lane Group Flow (vph)	0	597	0	54	448	0	0	0	0	57	256	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		8			4						2	
Permitted Phases				4						2		
Actuated Green, G (s)		13.9		13.9	13.9					11.2	11.2	
Effective Green, g (s)		13.9		13.9	13.9					11.2	11.2	
Actuated g/C Ratio		0.39		0.39	0.39					0.32	0.32	
Clearance Time (s)		5.2		5.2	5.2					5.2	5.2	
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	
Lane Grp Cap (vph)		1336		296	1399					558	1090	
v/s Ratio Prot		c0.17			0.13						c0.07	
v/s Ratio Perm				0.07						0.03		
v/c Ratio		0.45		0.18	0.32					0.10	0.24	
Uniform Delay, d1		8.0		7.1	7.5					8.6	9.0	
Progression Factor		1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2		0.2		0.3	0.1					0.1	0.1	
Delay (s)		8.2		7.4	7.6					8.7	9.1	
Level of Service		A		A	A					A	A	
Approach Delay (s)		8.2			7.6			0.0			9.0	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	35.5	Sum of lost time (s)	10.4
Intersection Capacity Utilization	41.4%	ICU Level of Service	A
Analysis Period (min)	15		

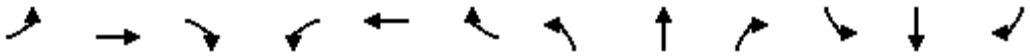
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	462	28	51	362	27	73	112	80	72	69	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2		5.2	5.2		5.2	5.2	5.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1480	3545		1805	3539		1805	1764		1787	1900	1495
Flt Permitted	0.48	1.00		0.44	1.00		0.70	1.00		0.58	1.00	1.00
Satd. Flow (perm)	752	3545		842	3539		1335	1764		1094	1900	1495
Peak-hour factor, PHF	0.88	0.88	0.88	0.83	0.83	0.83	0.66	0.66	0.66	0.82	0.82	0.82
Adj. Flow (vph)	25	525	32	61	436	33	111	170	121	88	84	43
RTOR Reduction (vph)	0	7	0	0	9	0	0	41	0	0	0	28
Lane Group Flow (vph)	25	550	0	61	460	0	111	250	0	88	84	15
Heavy Vehicles (%)	22%	1%	0%	0%	1%	0%	0%	1%	1%	1%	0%	8%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	14.1	14.1		14.1	14.1		13.3	13.3		13.3	13.3	13.3
Effective Green, g (s)	14.1	14.1		14.1	14.1		13.3	13.3		13.3	13.3	13.3
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.35	0.35		0.35	0.35	0.35
Clearance Time (s)	5.2	5.2		5.2	5.2		5.2	5.2		5.2	5.2	5.2
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	280	1322		314	1320		469	620		384	668	526
v/s Ratio Prot		c0.16			0.13			c0.14			0.04	
v/s Ratio Perm	0.03			0.07			0.08			0.08		0.01
v/c Ratio	0.09	0.42		0.19	0.35		0.24	0.40		0.23	0.13	0.03
Uniform Delay, d1	7.7	8.8		8.0	8.5		8.7	9.3		8.6	8.3	8.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	0.3		0.4	0.2		0.4	0.6		0.4	0.1	0.0
Delay (s)	7.9	9.1		8.4	8.8		9.0	9.8		9.1	8.4	8.1
Level of Service	A	A		A	A		A	A		A	A	A
Approach Delay (s)		9.0			8.7			9.6			8.6	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	37.8	Sum of lost time (s)	10.4
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		

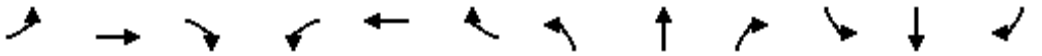
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	571	0	0	356	74	44	305	94	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2			5.2			5.0				
Lane Util. Factor	1.00	0.95			0.95			0.95				
Frt	1.00	1.00			0.97			0.97				
Flt Protected	0.95	1.00			1.00			1.00				
Satd. Flow (prot)	1770	3574			3448			3409				
Flt Permitted	0.49	1.00			1.00			1.00				
Satd. Flow (perm)	914	3574			3448			3409				
Peak-hour factor, PHF	0.92	0.92	0.92	0.95	0.95	0.95	0.80	0.80	0.80	0.92	0.92	0.92
Adj. Flow (vph)	46	621	0	0	375	78	55	381	118	0	0	0
RTOR Reduction (vph)	0	0	0	0	31	0	0	39	0	0	0	0
Lane Group Flow (vph)	46	621	0	0	422	0	0	515	0	0	0	0
Heavy Vehicles (%)	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		8			4			6				
Permitted Phases	8						6					
Actuated Green, G (s)	15.1	15.1			15.1			14.4				
Effective Green, g (s)	15.1	15.1			15.1			14.4				
Actuated g/C Ratio	0.38	0.38			0.38			0.36				
Clearance Time (s)	5.2	5.2			5.2			5.0				
Vehicle Extension (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	347	1359			1311			1236				
v/s Ratio Prot		c0.17			0.12							
v/s Ratio Perm	0.05							0.15				
v/c Ratio	0.13	0.46			0.32			0.42				
Uniform Delay, d1	8.0	9.2			8.7			9.5				
Progression Factor	1.00	1.00			1.00			1.00				
Incremental Delay, d2	0.2	0.3			0.2			0.3				
Delay (s)	8.3	9.6			8.9			9.8				
Level of Service	A	A			A			A				
Approach Delay (s)		9.5			8.9			9.8			0.0	
Approach LOS		A			A			A			A	

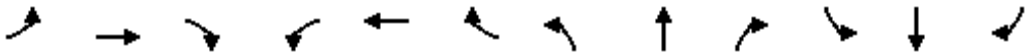
Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	39.7	Sum of lost time (s)	10.2
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	117	10	264	23	196	8	304	478	323	232	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6	5.6	5.0	5.6	5.6	5.0	5.6	5.6
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1841		1681	1698	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1841		1681	1698	1583	1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.84	0.84	0.84	0.85	0.85	0.85	0.83	0.83	0.83	0.92	0.92	0.92
Adj. Flow (vph)	5	139	12	311	27	231	10	366	576	351	252	9
RTOR Reduction (vph)	0	3	0	0	0	183	0	0	111	0	0	5
Lane Group Flow (vph)	5	148	0	168	170	48	10	366	465	351	252	4
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	8	8		4	4		1	6	4	5	2	
Permitted Phases						4			6			2
Actuated Green, G (s)	14.9	14.9		22.2	22.2	22.2	1.0	23.5	45.7	25.2	47.7	47.7
Effective Green, g (s)	14.9	14.9		22.2	22.2	22.2	1.0	23.5	45.7	25.2	47.7	47.7
Actuated g/C Ratio	0.14	0.14		0.21	0.21	0.21	0.01	0.22	0.42	0.23	0.44	0.44
Clearance Time (s)	5.6	5.6		5.6	5.6	5.6	5.0	5.6	5.6	5.0	5.6	5.6
Vehicle Extension (s)	3.0	3.0		3.5	3.5	3.5	2.0	4.8	3.5	3.0	4.8	4.8
Lane Grp Cap (vph)	245	254		346	350	326	16	772	754	414	1568	701
v/s Ratio Prot	0.00	c0.08		0.10	0.10		0.01	0.10	c0.13	c0.20	0.07	
v/s Ratio Perm						0.03			0.17			0.00
v/c Ratio	0.02	0.58		0.49	0.49	0.15	0.62	0.47	0.62	0.85	0.16	0.01
Uniform Delay, d1	40.0	43.4		37.7	37.7	34.9	53.1	36.7	24.1	39.4	18.0	16.7
Progression Factor	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	0.0	3.4		1.3	1.3	0.2	44.0	0.9	1.6	14.8	0.1	0.0
Delay (s)	40.1	46.9		38.9	38.9	35.2	97.1	37.6	25.7	54.2	18.0	16.7
Level of Service	D	D		D	D	D	F	D	C	D	B	B
Approach Delay (s)		46.6			37.4			31.0			38.8	
Approach LOS		D			D			C			D	

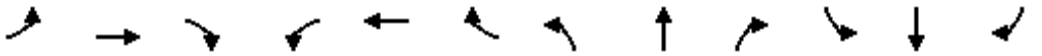
Intersection Summary			
HCM 2000 Control Delay	35.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	107.6	Sum of lost time (s)	21.8
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	83	21	32	184	41	18	149	18	18	83	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.97		1.00	0.97			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1770	1805		1770	1812			3470			3479	
Flt Permitted	0.49	1.00		0.68	1.00			0.93			0.91	
Satd. Flow (perm)	906	1805		1276	1812			3244			3177	
Peak-hour factor, PHF	0.93	0.93	0.93	0.78	0.78	0.78	0.91	0.91	0.91	0.79	0.79	0.79
Adj. Flow (vph)	9	89	23	41	236	53	20	164	20	23	105	8
RTOR Reduction (vph)	0	15	0	0	14	0	0	10	0	0	4	0
Lane Group Flow (vph)	9	97	0	41	275	0	0	194	0	0	132	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	19.0	19.0		19.0	19.0			30.0			30.0	
Effective Green, g (s)	19.0	19.0		19.0	19.0			30.0			30.0	
Actuated g/C Ratio	0.33	0.33		0.33	0.33			0.52			0.52	
Clearance Time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Lane Grp Cap (vph)	299	597		422	599			1695			1660	
v/s Ratio Prot		0.05			c0.15							
v/s Ratio Perm	0.01			0.03				c0.06			0.04	
v/c Ratio	0.03	0.16		0.10	0.46			0.11			0.08	
Uniform Delay, d1	13.0	13.6		13.3	15.1			7.0			6.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.2	0.6		0.5	2.5			0.1			0.1	
Delay (s)	13.2	14.2		13.7	17.7			7.1			6.9	
Level of Service	B	B		B	B			A			A	
Approach Delay (s)		14.1			17.2			7.1			6.9	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	57.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	47.8%	ICU Level of Service	A
Analysis Period (min)	15		

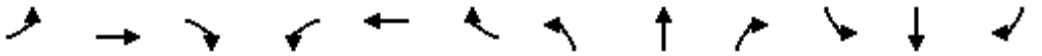
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	90	11	37	191	102	22	149	43	99	160	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.95		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3481		1770	3354		1770	1800		1770	1863	1583
Flt Permitted	0.55	1.00		0.68	1.00		0.64	1.00		0.58	1.00	1.00
Satd. Flow (perm)	1029	3481		1262	3354		1193	1800		1073	1863	1583
Peak-hour factor, PHF	0.86	0.86	0.86	0.89	0.89	0.89	0.76	0.76	0.76	0.86	0.86	0.86
Adj. Flow (vph)	19	105	13	42	215	115	29	196	57	115	186	48
RTOR Reduction (vph)	0	7	0	0	64	0	0	18	0	0	0	29
Lane Group Flow (vph)	19	111	0	42	266	0	29	235	0	115	186	19
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	25.0	25.0		25.0	25.0		23.0	23.0		23.0	23.0	23.0
Effective Green, g (s)	25.0	25.0		25.0	25.0		23.0	23.0		23.0	23.0	23.0
Actuated g/C Ratio	0.44	0.44		0.44	0.44		0.41	0.41		0.41	0.41	0.41
Clearance Time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	453	1534		556	1478		483	730		435	755	642
v/s Ratio Prot		0.03			c0.08			c0.13			0.10	
v/s Ratio Perm	0.02			0.03			0.02			0.11		0.01
v/c Ratio	0.04	0.07		0.08	0.18		0.06	0.32		0.26	0.25	0.03
Uniform Delay, d1	9.0	9.2		9.2	9.6		10.3	11.5		11.2	11.1	10.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1		0.3	0.3		0.2	1.2		1.5	0.8	0.1
Delay (s)	9.2	9.2		9.4	9.9		10.5	12.7		12.7	11.9	10.2
Level of Service	A	A		A	A		B	B		B	B	B
Approach Delay (s)		9.2			9.8			12.5			11.9	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	56.7	Sum of lost time (s)	8.7
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		

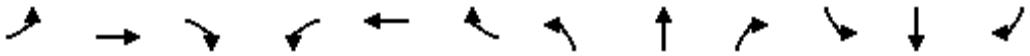
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	47	187	21	38	208	159	58	345	45	82	178	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	1.00	
Frt	1.00	0.99		1.00	0.94		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3486		1770	3328		1770	3478		1770	1803	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3486		1770	3328		1770	3478		1770	1803	
Peak-hour factor, PHF	0.86	0.86	0.86	0.78	0.78	0.78	0.87	0.87	0.87	0.94	0.94	0.94
Adj. Flow (vph)	55	217	24	49	267	204	67	397	52	87	189	51
RTOR Reduction (vph)	0	7	0	0	120	0	0	10	0	0	9	0
Lane Group Flow (vph)	55	234	0	49	351	0	67	439	0	87	231	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	4.3	22.9		4.1	22.7		5.9	20.1		6.6	20.8	
Effective Green, g (s)	4.3	22.9		4.1	22.7		5.9	20.1		6.6	20.8	
Actuated g/C Ratio	0.06	0.33		0.06	0.32		0.08	0.29		0.09	0.30	
Clearance Time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	5.0		2.0	5.0	
Lane Grp Cap (vph)	108	1138		103	1077		148	997		166	534	
v/s Ratio Prot	c0.03	0.07		0.03	c0.11		0.04	0.13		c0.05	c0.13	
v/s Ratio Perm												
v/c Ratio	0.51	0.21		0.48	0.33		0.45	0.44		0.52	0.43	
Uniform Delay, d1	31.9	17.0		32.0	17.9		30.6	20.4		30.3	19.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.4	0.2		1.3	0.4		0.8	0.7		1.4	1.2	
Delay (s)	33.3	17.2		33.2	18.3		31.4	21.1		31.6	21.1	
Level of Service	C	B		C	B		C	C		C	C	
Approach Delay (s)		20.2			19.7			22.4			23.9	
Approach LOS		C			B			C			C	

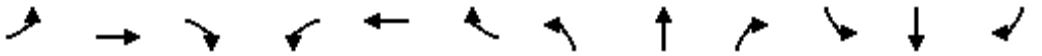
Intersection Summary			
HCM 2000 Control Delay	21.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	70.1	Sum of lost time (s)	16.4
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



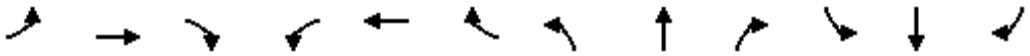
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	444	36	66	392	0	0	0	0	154	265	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5					4.5	4.5	
Lane Util. Factor		0.95		1.00	0.95					1.00	0.95	
Frt		0.99		1.00	1.00					1.00	0.96	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3499		1770	3574					1770	3390	
Flt Permitted		1.00		0.43	1.00					0.95	1.00	
Satd. Flow (perm)		3499		795	3574					1770	3390	
Peak-hour factor, PHF	0.86	0.86	0.86	0.95	0.95	0.95	0.92	0.92	0.92	0.59	0.59	0.59
Adj. Flow (vph)	0	516	42	69	413	0	0	0	0	261	449	176
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	0	76	0
Lane Group Flow (vph)	0	547	0	69	413	0	0	0	0	261	549	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			4						2	
Permitted Phases				4						2		
Actuated Green, G (s)		26.0		26.0	26.0					19.0	19.0	
Effective Green, g (s)		26.0		26.0	26.0					19.0	19.0	
Actuated g/C Ratio		0.48		0.48	0.48					0.35	0.35	
Clearance Time (s)		4.5		4.5	4.5					4.5	4.5	
Lane Grp Cap (vph)		1684		382	1720					622	1192	
v/s Ratio Prot		c0.16			0.12						c0.16	
v/s Ratio Perm				0.09						0.15		
v/c Ratio		0.32		0.18	0.24					0.42	0.46	
Uniform Delay, d1		8.6		8.0	8.2					13.3	13.5	
Progression Factor		1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2		0.5		1.0	0.3					2.1	1.3	
Delay (s)		9.1		9.0	8.5					15.4	14.8	
Level of Service		A		A	A					B	B	
Approach Delay (s)		9.1			8.6			0.0			15.0	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	54.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.4%	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)	32	712	18	26	395	23	45	113	138	102	97	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.2			4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	1.00
Satd. Flow (prot)	1805	3597		1805	3547			1742			1825	1455
Flt Permitted	0.47	1.00		0.27	1.00			0.92			0.63	1.00
Satd. Flow (perm)	884	3597		505	3547			1606			1180	1455
Peak-hour factor, PHF	0.86	0.86	0.86	0.87	0.87	0.87	0.83	0.83	0.83	0.70	0.70	0.70
Adj. Flow (vph)	37	828	21	30	454	26	54	136	166	146	139	63
RTOR Reduction (vph)	0	3	0	0	7	0	0	53	0	0	0	40
Lane Group Flow (vph)	37	846	0	30	473	0	0	303	0	0	285	23
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	7%	1%	0%	3%	0%	11%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	29.0	29.0		29.0	29.0			22.0			22.0	22.0
Effective Green, g (s)	29.0	29.0		29.0	29.0			22.0			22.0	22.0
Actuated g/C Ratio	0.49	0.49		0.49	0.49			0.37			0.37	0.37
Clearance Time (s)	4.2	4.2		4.2	4.2			4.2			4.2	4.2
Lane Grp Cap (vph)	431	1756		246	1731			594			437	538
v/s Ratio Prot		c0.24			0.13							
v/s Ratio Perm	0.04			0.06				0.19			c0.24	0.02
v/c Ratio	0.09	0.48		0.12	0.27			0.51			0.65	0.04
Uniform Delay, d1	8.1	10.2		8.3	9.0			14.5			15.5	12.0
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	0.4	0.9		1.0	0.4			3.1			7.4	0.2
Delay (s)	8.5	11.1		9.3	9.4			17.6			22.9	12.1
Level of Service	A	B		A	A			B			C	B
Approach Delay (s)		11.0			9.4			17.6			20.9	
Approach LOS		B			A			B			C	

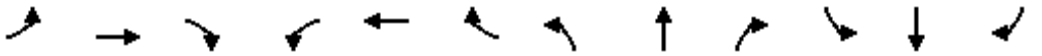
Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	938	0	0	406	30	38	125	95	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2			5.2	5.2	5.0	5.0	5.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1770	3610			3539	1583	1770	1863	1583			
Flt Permitted	0.47	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	866	3610			3539	1583	1770	1863	1583			
Peak-hour factor, PHF	0.77	0.77	0.77	0.80	0.80	0.80	0.83	0.83	0.83	0.92	0.92	0.92
Adj. Flow (vph)	18	1218	0	0	508	38	46	151	114	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	14	0	0	35	0	0	0
Lane Group Flow (vph)	18	1218	0	0	508	24	46	151	79	0	0	0
Heavy Vehicles (%)	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		8			4			6				
Permitted Phases	8					4	6		6			
Actuated Green, G (s)	34.9	34.9			34.9	34.9	10.2	10.2	10.2			
Effective Green, g (s)	34.9	34.9			34.9	34.9	10.2	10.2	10.2			
Actuated g/C Ratio	0.63	0.63			0.63	0.63	0.18	0.18	0.18			
Clearance Time (s)	5.2	5.2			5.2	5.2	5.0	5.0	5.0			
Vehicle Extension (s)	5.0	5.0			5.0	5.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	546	2278			2233	999	326	343	291			
v/s Ratio Prot		c0.34			0.14			c0.08				
v/s Ratio Perm	0.02					0.02	0.03		0.05			
v/c Ratio	0.03	0.53			0.23	0.02	0.14	0.44	0.27			
Uniform Delay, d1	3.8	5.7			4.4	3.8	18.9	20.0	19.4			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.1	0.4			0.1	0.0	0.2	0.9	0.5			
Delay (s)	3.9	6.1			4.5	3.8	19.1	20.9	19.9			
Level of Service	A	A			A	A	B	C	B			
Approach Delay (s)		6.1			4.5			20.3			0.0	
Approach LOS		A			A			C			A	

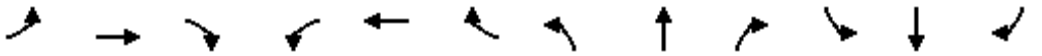
Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	55.3	Sum of lost time (s)	10.2
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



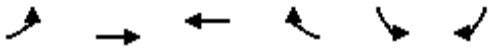
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	978	83	140	549	66	0	0	0	75	136	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6						4.6	4.6
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frt	1.00	0.99		1.00	0.98						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.98	1.00
Satd. Flow (prot)	1770	3498		1770	3483						1830	1583
Flt Permitted	0.39	1.00		0.13	1.00						0.98	1.00
Satd. Flow (perm)	734	3498		249	3483						1830	1583
Peak-hour factor, PHF	0.72	0.72	0.72	0.95	0.95	0.95	0.92	0.92	0.92	0.70	0.70	0.70
Adj. Flow (vph)	32	1358	115	147	578	69	0	0	0	107	194	29
RTOR Reduction (vph)	0	4	0	0	6	0	0	0	0	0	0	17
Lane Group Flow (vph)	32	1469	0	147	641	0	0	0	0	0	301	12
Turn Type	Perm	NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases	2			6						4		4
Actuated Green, G (s)	80.2	80.2		80.2	80.2						23.8	23.8
Effective Green, g (s)	80.2	80.2		80.2	80.2						23.8	23.8
Actuated g/C Ratio	0.70	0.70		0.70	0.70						0.21	0.21
Clearance Time (s)	5.6	5.6		5.6	5.6						4.6	4.6
Vehicle Extension (s)	4.1	4.1		4.1	4.1						3.0	3.0
Lane Grp Cap (vph)	515	2456		174	2446						381	329
v/s Ratio Prot		0.42			0.18							
v/s Ratio Perm	0.04			c0.59							0.16	0.01
v/c Ratio	0.06	0.60		0.84	0.26						0.79	0.04
Uniform Delay, d1	5.3	8.7		12.4	6.2						42.8	36.0
Progression Factor	1.00	1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2	0.2	1.1		30.6	0.1						10.6	0.0
Delay (s)	5.5	9.8		43.1	6.3						53.5	36.1
Level of Service	A	A		D	A						D	D
Approach Delay (s)		9.7			13.1			0.0			51.9	
Approach LOS		A			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	114.2	Sum of lost time (s)	10.2
Intersection Capacity Utilization	62.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	979	9	0	252	0	0	0	0	543	281	309
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.1			4.1					4.6	4.6	3.6
Lane Util. Factor		0.95			0.95					0.91	0.91	1.00
Frt		1.00			1.00					1.00	1.00	0.85
Flt Protected		1.00			1.00					0.95	0.98	1.00
Satd. Flow (prot)		3534			3539					1610	3309	1583
Flt Permitted		1.00			1.00					0.95	0.98	1.00
Satd. Flow (perm)		3534			3539					1610	3309	1583
Peak-hour factor, PHF	0.89	0.89	0.89	0.97	0.97	0.97	0.92	0.92	0.92	0.97	0.97	0.97
Adj. Flow (vph)	0	1100	10	0	260	0	0	0	0	560	290	319
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	234
Lane Group Flow (vph)	0	1110	0	0	260	0	0	0	0	280	570	85
Turn Type		NA			NA					Split	NA	custom
Protected Phases		2			6					4	4	
Permitted Phases												7
Actuated Green, G (s)		38.6			38.6					27.7	27.7	20.0
Effective Green, g (s)		38.6			38.6					27.7	27.7	20.0
Actuated g/C Ratio		0.51			0.51					0.37	0.37	0.27
Clearance Time (s)		4.1			4.1					4.6	4.6	3.6
Vehicle Extension (s)		4.1			3.5					4.0	4.0	4.0
Lane Grp Cap (vph)		1818			1821					594	1222	422
v/s Ratio Prot		c0.31			0.07					c0.17	0.17	
v/s Ratio Perm												0.05
v/c Ratio		0.61			0.14					0.47	0.47	0.20
Uniform Delay, d1		12.9			9.5					18.1	18.0	21.3
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		1.5			0.2					0.8	0.4	0.3
Delay (s)		14.4			9.7					18.9	18.4	21.6
Level of Service		B			A					B	B	C
Approach Delay (s)		14.4			9.7			0.0			19.4	
Approach LOS		B			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	11.4
Intersection Capacity Utilization	80.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



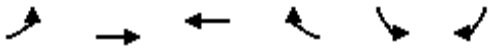
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱↱
Volume (vph)	0	1053	465	0	0	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.1			4.6
Lane Util. Factor		0.95	0.95			0.88
Frt		1.00	1.00			0.85
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		3539	3539			2787
Flt Permitted		1.00	1.00			1.00
Satd. Flow (perm)		3539	3539			2787
Peak-hour factor, PHF	0.72	0.72	0.92	0.92	0.91	0.91
Adj. Flow (vph)	0	1462	505	0	0	319
RTOR Reduction (vph)	0	0	0	0	0	70
Lane Group Flow (vph)	0	1462	505	0	0	249
Turn Type		NA	NA			Prot
Protected Phases		2 8	6			4
Permitted Phases						
Actuated Green, G (s)		56.4	35.5			12.2
Effective Green, g (s)		52.3	35.5			12.2
Actuated g/C Ratio		0.93	0.63			0.22
Clearance Time (s)			4.1			4.6
Vehicle Extension (s)			3.8			4.0
Lane Grp Cap (vph)		3281	2227			602
v/s Ratio Prot		c0.41	0.14			0.09
v/s Ratio Perm						
v/c Ratio		0.45	0.23			0.41
Uniform Delay, d1		0.3	4.5			19.0
Progression Factor		1.00	1.00			1.00
Incremental Delay, d2		0.0	0.2			0.6
Delay (s)		0.3	4.8			19.7
Level of Service		A	A			B
Approach Delay (s)		0.3	4.8		19.7	
Approach LOS		A	A		B	

Intersection Summary			
HCM 2000 Control Delay	4.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	56.4	Sum of lost time (s)	12.8
Intersection Capacity Utilization	32.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



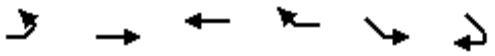
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	368	685	0	340	125	279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0		4.6	4.6	4.6
Lane Util. Factor	0.91	0.91		0.95	1.00	1.00
Frt	0.93	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3145	1441		3539	1770	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3145	1441		3539	1770	1583
Peak-hour factor, PHF	0.73	0.73	0.92	0.92	0.95	0.95
Adj. Flow (vph)	504	938	0	370	132	294
RTOR Reduction (vph)	162	0	0	0	0	58
Lane Group Flow (vph)	811	469	0	370	132	236
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	6			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	31.9	101.1		31.9	60.0	60.0
Effective Green, g (s)	31.9	101.1		31.9	60.0	60.0
Actuated g/C Ratio	0.32	1.00		0.32	0.59	0.59
Clearance Time (s)	4.6			4.6	4.6	4.6
Vehicle Extension (s)	3.0			3.0	2.0	2.0
Lane Grp Cap (vph)	992	1441		1116	1050	939
v/s Ratio Prot	c0.26			0.10	0.07	
v/s Ratio Perm		c0.33				0.15
v/c Ratio	0.82	0.33		0.33	0.13	0.25
Uniform Delay, d1	31.9	0.0		26.4	9.0	9.8
Progression Factor	1.00	1.00		1.15	1.00	1.00
Incremental Delay, d2	5.3	0.6		0.2	0.0	0.1
Delay (s)	37.3	0.6		30.6	9.0	9.9
Level of Service	D	A		C	A	A
Approach Delay (s)	25.3			30.6	9.6	
Approach LOS	C			C	A	

Intersection Summary			
HCM 2000 Control Delay	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	101.1	Sum of lost time (s)	13.4
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



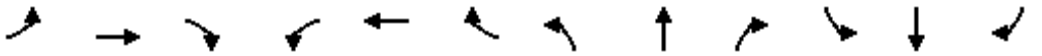
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	738	784	252	520	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.6		
Lane Util. Factor	1.00	0.95	0.95	1.00		
Frt	1.00	1.00	1.00	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	1770	3539	3539	1583		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	1770	3539	3539	1583		
Peak-hour factor, PHF	0.86	0.86	0.89	0.89	0.92	0.92
Adj. Flow (vph)	858	912	283	584	0	0
RTOR Reduction (vph)	0	0	0	69	0	0
Lane Group Flow (vph)	858	912	283	515	0	0
Turn Type	Prot	NA	NA	Perm		
Protected Phases	2 3	Free	4			
Permitted Phases				4		
Actuated Green, G (s)	51.6	101.1	40.7	40.7		
Effective Green, g (s)	51.6	101.1	40.7	40.7		
Actuated g/C Ratio	0.51	1.00	0.40	0.40		
Clearance Time (s)			4.6	4.6		
Vehicle Extension (s)			4.1	4.1		
Lane Grp Cap (vph)	903	3539	1424	637		
v/s Ratio Prot	c0.48	0.26	0.08			
v/s Ratio Perm				c0.33		
v/c Ratio	0.95	0.26	0.20	0.81		
Uniform Delay, d1	23.5	0.0	19.6	26.7		
Progression Factor	1.00	1.00	0.75	0.71		
Incremental Delay, d2	18.8	0.2	0.1	7.4		
Delay (s)	42.3	0.2	14.8	26.3		
Level of Service	D	A	B	C		
Approach Delay (s)		20.6	22.6		0.0	
Approach LOS		C	C		A	

Intersection Summary			
HCM 2000 Control Delay	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	101.1	Sum of lost time (s)	13.4
Intersection Capacity Utilization	80.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



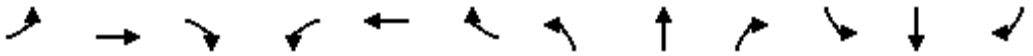
Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (vph)	0	647	340	772	784	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6	
Lane Util. Factor		0.95	0.91	0.91	0.97	
Frt		1.00	0.92	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3539	3120	1441	3433	
Flt Permitted		1.00	1.00	1.00	0.95	
Satd. Flow (perm)		3539	3120	1441	3433	
Peak-hour factor, PHF	0.77	0.77	0.91	0.91	0.88	0.88
Adj. Flow (vph)	0	840	374	848	891	0
RTOR Reduction (vph)	0	0	196	0	0	0
Lane Group Flow (vph)	0	840	602	424	891	0
Turn Type		NA	NA	Free	Prot	
Protected Phases		4	4		2 3	
Permitted Phases				Free		
Actuated Green, G (s)		40.7	40.7	101.1	51.6	
Effective Green, g (s)		40.7	40.7	101.1	51.6	
Actuated g/C Ratio		0.40	0.40	1.00	0.51	
Clearance Time (s)		4.6	4.6			
Vehicle Extension (s)		4.1	4.1			
Lane Grp Cap (vph)		1424	1256	1441	1752	
v/s Ratio Prot		c0.24	0.19		c0.26	
v/s Ratio Perm				0.29		
v/c Ratio		0.59	0.48	0.29	0.51	
Uniform Delay, d1		23.7	22.4	0.0	16.4	
Progression Factor		1.39	1.00	1.00	1.00	
Incremental Delay, d2		0.6	0.4	0.5	0.1	
Delay (s)		33.6	22.8	0.5	16.4	
Level of Service		C	C	A	B	
Approach Delay (s)		33.6	15.1		16.4	
Approach LOS		C	B		B	

Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	101.1	Sum of lost time (s)	13.4
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



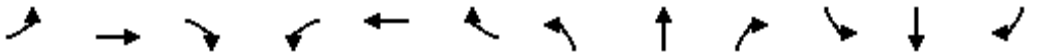
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	363	842	174	101	573	84	347	413	48	237	325	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9	4.9	4.0	4.9	4.9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3472		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3472		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.86	0.86	0.86	0.91	0.91	0.91	0.84	0.84	0.84	0.86	0.86	0.86
Adj. Flow (vph)	422	979	202	111	630	92	413	492	57	276	378	94
RTOR Reduction (vph)	0	0	53	0	9	0	0	0	44	0	0	75
Lane Group Flow (vph)	422	979	149	111	713	0	413	492	13	276	378	19
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8						6			2
Actuated Green, G (s)	16.5	38.6	38.6	8.0	30.1		15.7	23.0	23.0	12.7	20.0	20.0
Effective Green, g (s)	16.5	38.6	38.6	8.0	30.1		15.7	23.0	23.0	12.7	20.0	20.0
Actuated g/C Ratio	0.16	0.39	0.39	0.08	0.30		0.16	0.23	0.23	0.13	0.20	0.20
Clearance Time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9	4.9	4.0	4.9	4.9
Vehicle Extension (s)	2.0	5.0	5.0	2.0	5.2		2.0	5.0	5.0	2.0	5.2	5.2
Lane Grp Cap (vph)	565	1364	610	274	1044		538	813	363	435	707	316
v/s Ratio Prot	c0.12	c0.28		0.03	0.21		c0.12	c0.14		0.08	0.11	
v/s Ratio Perm			0.09						0.01			0.01
v/c Ratio	0.75	0.72	0.24	0.41	0.68		0.77	0.61	0.04	0.63	0.53	0.06
Uniform Delay, d1	39.8	26.1	20.9	43.8	30.8		40.5	34.5	29.9	41.5	35.9	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
Incremental Delay, d2	4.7	2.3	0.4	0.4	2.5		5.9	1.9	0.1	2.2	1.5	0.2
Delay (s)	44.5	28.4	21.3	44.1	33.3		46.3	36.4	30.0	43.7	37.4	32.6
Level of Service	D	C	C	D	C		D	D	C	D	D	C
Approach Delay (s)		31.7			34.7			40.3			39.1	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	35.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.1	Sum of lost time (s)	17.8
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	10	0	113	0	75	5	65	164	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.2		4.2	4.2	4.0	4.2	
Lane Util. Factor					1.00	1.00		1.00	1.00	1.00	1.00	
Frt					1.00	0.85		1.00	0.85	1.00	1.00	
Flt Protected					0.95	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)					1770	1583		1863	1583	1770	1863	
Flt Permitted					0.95	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)					1770	1583		1863	1583	1770	1863	
Peak-hour factor, PHF	0.85	0.85	0.85	0.57	0.85	0.57	0.85	0.83	0.83	0.88	0.88	0.85
Adj. Flow (vph)	0	0	0	18	0	198	0	90	6	74	186	0
RTOR Reduction (vph)	0	0	0	0	0	135	0	0	4	0	0	0
Lane Group Flow (vph)	0	0	0	0	18	63	0	90	2	74	186	0
Turn Type				Prot	NA	custom		NA	Perm	Prot	NA	
Protected Phases				4	8			6		5	2	
Permitted Phases						4	6		6			
Actuated Green, G (s)					15.6	15.4		16.0	16.0	4.6	24.6	
Effective Green, g (s)					15.6	15.4		16.0	16.0	4.6	24.6	
Actuated g/C Ratio					0.32	0.32		0.33	0.33	0.10	0.51	
Clearance Time (s)					4.0	4.2		4.2	4.2	4.0	4.2	
Vehicle Extension (s)					3.0	2.0		4.8	4.8	3.0	4.8	
Lane Grp Cap (vph)					570	503		615	523	168	946	
v/s Ratio Prot					0.01			0.05		c0.04	c0.10	
v/s Ratio Perm					0.00	c0.04			0.00			
v/c Ratio					0.03	0.13		0.15	0.00	0.44	0.20	
Uniform Delay, d1					11.2	11.7		11.4	10.9	20.7	6.5	
Progression Factor					1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2					0.0	0.0		0.2	0.0	1.8	0.2	
Delay (s)					11.3	11.8		11.6	10.9	22.5	6.7	
Level of Service					B	B		B	B	C	A	
Approach Delay (s)		0.0			11.7			11.6			11.2	
Approach LOS		A			B			B			B	

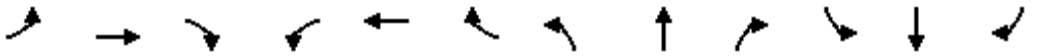
Intersection Summary			
HCM 2000 Control Delay	11.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.21		
Actuated Cycle Length (s)	48.4	Sum of lost time (s)	12.4
Intersection Capacity Utilization	21.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	47	39	32	20	60	37	40	300	22	9	197	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Util. Factor	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	0.94		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1736		1770	1756		1770	1844		1770	1863	1583
Flt Permitted	0.67	1.00		0.70	1.00		0.62	1.00		0.47	1.00	1.00
Satd. Flow (perm)	1252	1736		1308	1756		1158	1844		880	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.84	0.73	0.73	0.73	0.88	0.88	0.88	0.91	0.91	0.91
Adj. Flow (vph)	56	46	38	27	82	51	45	341	25	10	216	42
RTOR Reduction (vph)	0	24	0	0	32	0	0	4	0	0	0	22
Lane Group Flow (vph)	56	60	0	27	101	0	45	362	0	10	216	20
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	22.8	22.8		22.8	22.8		28.8	28.8		28.8	28.8	28.8
Effective Green, g (s)	22.8	22.8		22.8	22.8		28.8	28.8		28.8	28.8	28.8
Actuated g/C Ratio	0.38	0.38		0.38	0.38		0.48	0.48		0.48	0.48	0.48
Clearance Time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Grp Cap (vph)	475	659		497	667		555	885		422	894	759
v/s Ratio Prot		0.03			c0.06			c0.20			0.12	
v/s Ratio Perm	0.04			0.02			0.04			0.01		0.01
v/c Ratio	0.12	0.09		0.05	0.15		0.08	0.41		0.02	0.24	0.03
Uniform Delay, d1	12.1	11.9		11.8	12.2		8.4	10.1		8.2	9.2	8.2
Progression Factor	0.90	0.87		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.5	0.3		0.2	0.5		0.3	1.4		0.1	0.6	0.1
Delay (s)	11.4	10.6		12.0	12.7		8.7	11.5		8.3	9.8	8.3
Level of Service	B	B		B	B		A	B		A	A	A
Approach Delay (s)		10.9			12.6			11.2			9.5	
Approach LOS		B			B			B			A	

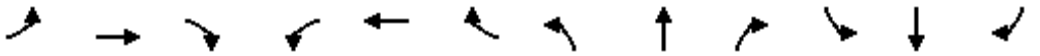
Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	553	13	26	487	62	3	18	22	44	12	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8		4.8	4.8		4.8	4.8	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.98		1.00	0.92		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	3529		1687	3453		1805	1628		1805	1590	
Flt Permitted	0.39	1.00		0.34	1.00		0.67	1.00		0.73	1.00	
Satd. Flow (perm)	733	3529		596	3453		1282	1628		1381	1590	
Peak-hour factor, PHF	0.77	0.77	0.77	0.87	0.87	0.87	0.87	0.87	0.87	0.85	0.85	0.85
Adj. Flow (vph)	81	718	17	30	560	71	3	21	25	52	14	114
RTOR Reduction (vph)	0	3	0	0	16	0	0	17	0	0	78	0
Lane Group Flow (vph)	81	732	0	30	615	0	3	29	0	52	50	0
Heavy Vehicles (%)	1%	2%	0%	7%	3%	1%	0%	11%	4%	0%	0%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	31.2	31.2		31.2	31.2		19.2	19.2		19.2	19.2	
Effective Green, g (s)	31.2	31.2		31.2	31.2		19.2	19.2		19.2	19.2	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.32	0.32		0.32	0.32	
Clearance Time (s)	4.8	4.8		4.8	4.8		4.8	4.8		4.8	4.8	
Lane Grp Cap (vph)	381	1835		309	1795		410	520		441	508	
v/s Ratio Prot		c0.21			0.18			0.02			0.03	
v/s Ratio Perm	0.11			0.05			0.00			c0.04		
v/c Ratio	0.21	0.40		0.10	0.34		0.01	0.06		0.12	0.10	
Uniform Delay, d1	7.8	8.7		7.3	8.4		13.9	14.1		14.4	14.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	0.6		0.6	0.5		0.0	0.2		0.5	0.4	
Delay (s)	9.0	9.4		7.9	8.9		13.9	14.3		15.0	14.7	
Level of Service	A	A		A	A		B	B		B	B	
Approach Delay (s)		9.3			8.9			14.3			14.8	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



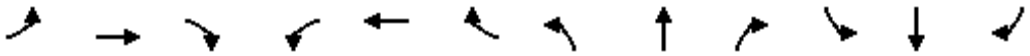
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	586	33	114	377	0	0	0	0	149	2	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		4.2	5.2					4.2	4.2	
Lane Util. Factor		0.95		1.00	0.95					1.00	1.00	
Frt		0.99		1.00	1.00					1.00	0.85	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3511		1770	3539					1770	1586	
Flt Permitted		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (perm)		3511		1770	3539					1770	1586	
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92	0.94	0.94	0.94
Adj. Flow (vph)	0	637	36	121	401	0	0	0	0	159	2	211
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	0	0	163	0
Lane Group Flow (vph)	0	670	0	121	401	0	0	0	0	159	50	0
Turn Type		NA		Prot	NA					Split	NA	
Protected Phases		2		1	6					4	4	
Permitted Phases												
Actuated Green, G (s)		22.4		7.6	34.2					12.9	12.9	
Effective Green, g (s)		22.4		7.6	34.2					12.9	12.9	
Actuated g/C Ratio		0.40		0.13	0.61					0.23	0.23	
Clearance Time (s)		5.2		4.2	5.2					4.2	4.2	
Vehicle Extension (s)		0.2		3.0	0.2					5.2	5.2	
Lane Grp Cap (vph)		1391		238	2142					404	362	
v/s Ratio Prot		c0.19		c0.07	0.11					c0.09	0.03	
v/s Ratio Perm												
v/c Ratio		0.48		0.51	0.19					0.39	0.14	
Uniform Delay, d1		12.7		22.7	5.0					18.5	17.4	
Progression Factor		1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2		0.1		1.7	0.0					1.4	0.4	
Delay (s)		12.8		24.4	5.0					19.9	17.8	
Level of Service		B		C	A					B	B	
Approach Delay (s)		12.8			9.5			0.0			18.7	
Approach LOS		B			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	56.5	Sum of lost time (s)	13.6
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	275	460	0	0	468	408	23	2	69	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.89	0.89	0.89	0.59	0.59	0.59	0.92	0.92	0.92
Hourly flow rate (vph)	293	489	0	0	526	458	39	3	117	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									23			
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		276			1067							
pX, platoon unblocked	0.96						0.96	0.96		0.96	0.96	0.96
vC, conflicting volume	984			489			1337	2059	245	1587	1830	492
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	895			489			1264	2017	245	1524	1778	381
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	59			100			53	90	85	100	100	100
cM capacity (veh/h)	722			1070			83	33	756	41	46	591

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	293	245	245	351	634	159
Volume Left	293	0	0	0	0	39
Volume Right	0	0	0	0	458	117
cSH	722	1700	1700	1700	1700	296
Volume to Capacity	0.41	0.14	0.14	0.21	0.37	0.54
Queue Length 95th (ft)	49	0	0	0	0	74
Control Delay (s)	13.3	0.0	0.0	0.0	0.0	33.0
Lane LOS	B					D
Approach Delay (s)	5.0			0.0		33.0
Approach LOS						D

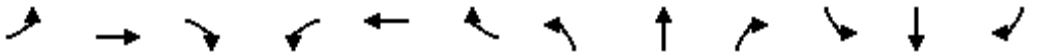
Intersection Summary				
Average Delay	4.8			
Intersection Capacity Utilization	54.6%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	56	468	5	2	787	30	9	9	18	33	2	80
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.88	0.88	0.88	0.75	0.75	0.75	0.68	0.68	0.68
Hourly flow rate (vph)	63	526	6	2	894	34	12	12	24	49	3	118
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		546			797							
pX, platoon unblocked	0.91						0.91	0.91		0.91	0.91	0.91
vC, conflicting volume	928			531			1225	1587	266	1335	1573	464
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	720			531			1047	1445	266	1167	1430	209
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			100			91	89	97	57	97	84
cM capacity (veh/h)	797			1032			128	109	733	112	112	724

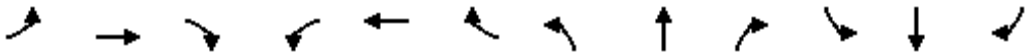
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	326	269	449	481	48	169
Volume Left	63	0	2	0	12	49
Volume Right	0	6	0	34	24	118
cSH	797	1700	1032	1700	203	273
Volume to Capacity	0.08	0.16	0.00	0.28	0.24	0.62
Queue Length 95th (ft)	6	0	0	0	22	95
Control Delay (s)	2.7	0.0	0.1	0.0	28.2	37.6
Lane LOS	A		A		D	E
Approach Delay (s)	1.5		0.0		28.2	37.6
Approach LOS					D	E

Intersection Summary				
Average Delay	4.9			
Intersection Capacity Utilization	57.1%	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)	22	438	27	55	739	38	69	139	88	69	86	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.94		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3508		1770	3513		1770	1754		1770	1748	
Flt Permitted	0.27	1.00		0.46	1.00		0.61	1.00		0.47	1.00	
Satd. Flow (perm)	505	3508		863	3513		1145	1754		875	1748	
Peak-hour factor, PHF	0.94	0.94	0.94	0.85	0.85	0.85	0.93	0.93	0.93	0.91	0.91	0.91
Adj. Flow (vph)	23	466	29	65	869	45	74	149	95	76	95	66
RTOR Reduction (vph)	0	5	0	0	4	0	0	32	0	0	35	0
Lane Group Flow (vph)	23	490	0	65	910	0	74	212	0	76	126	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			4	
Permitted Phases	6			2			4			4		
Actuated Green, G (s)	50.3	50.3		50.3	50.3		21.0	21.0		21.0	21.0	
Effective Green, g (s)	50.3	50.3		50.3	50.3		21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.63	0.63		0.63	0.63		0.26	0.26		0.26	0.26	
Clearance Time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)	317	2205		542	2208		300	460		229	458	
v/s Ratio Prot		0.14			c0.26			c0.12			0.07	
v/s Ratio Perm	0.05			0.08			0.06			0.09		
v/c Ratio	0.07	0.22		0.12	0.41		0.25	0.46		0.33	0.28	
Uniform Delay, d1	5.8	6.4		6.0	7.4		23.3	24.8		23.8	23.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.4	0.2		0.5	0.6		0.9	1.5		1.8	0.7	
Delay (s)	6.2	6.6		6.4	8.0		24.2	26.3		25.6	24.1	
Level of Service	A	A		A	A		C	C		C	C	
Approach Delay (s)		6.6			7.9			25.8			24.6	
Approach LOS		A			A			C			C	

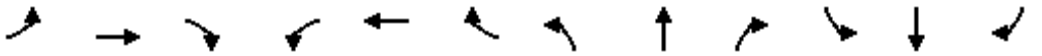
Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.7
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	42	539	14	2	747	43	14	8	10	68	8	71
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.77	0.77	0.77	0.73	0.73	0.73	0.82	0.82	0.82
Hourly flow rate (vph)	46	592	15	3	970	56	19	11	14	83	10	87
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			None							
Median storage veh)		2										
Upstream signal (ft)		681			400							
pX, platoon unblocked	0.91			1.00			0.91	0.91	1.00	0.91	0.91	0.91
vC, conflicting volume	1026			608			1274	1723	304	1411	1703	513
vC1, stage 1 conf vol							692	692		1003	1003	
vC2, stage 2 conf vol							582	1031		408	700	
vCu, unblocked vol	832			601			1093	1586	296	1243	1564	268
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			100			94	96	98	70	96	87
cM capacity (veh/h)	725			970			305	251	698	276	278	664

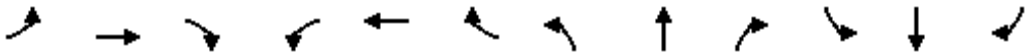
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	46	395	213	3	647	379	44	179
Volume Left	46	0	0	3	0	0	19	83
Volume Right	0	0	15	0	0	56	14	87
cSH	725	1700	1700	970	1700	1700	348	385
Volume to Capacity	0.06	0.23	0.13	0.00	0.38	0.22	0.13	0.47
Queue Length 95th (ft)	5	0	0	0	0	0	11	60
Control Delay (s)	10.3	0.0	0.0	8.7	0.0	0.0	16.8	22.3
Lane LOS	B			A			C	C
Approach Delay (s)	0.7			0.0			16.8	22.3
Approach LOS							C	C

Intersection Summary				
Average Delay	2.7			
Intersection Capacity Utilization	46.5%	ICU Level of Service	A	
Analysis Period (min)	15			



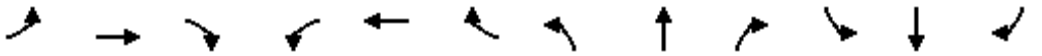
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	19	430	140	54	719	17	69	18	11	28	89	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		5.6	5.6		5.6	5.6	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	0.95	
Frt	1.00	0.96		1.00	1.00		1.00	0.94		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3409		1770	3527		1770	1756		1770	3463	
Flt Permitted	0.95	1.00		0.95	1.00		0.65	1.00		0.73	1.00	
Satd. Flow (perm)	1770	3409		1770	3527		1203	1756		1369	3463	
Peak-hour factor, PHF	0.91	0.91	0.91	0.94	0.94	0.94	0.84	0.84	0.84	0.62	0.62	0.62
Adj. Flow (vph)	21	473	154	57	765	18	82	21	13	45	144	24
RTOR Reduction (vph)	0	26	0	0	1	0	0	11	0	0	18	0
Lane Group Flow (vph)	21	601	0	57	782	0	82	23	0	45	150	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	2.7	47.6		15.2	60.1		13.4	13.4		13.4	13.4	
Effective Green, g (s)	2.7	47.6		15.2	60.1		13.4	13.4		13.4	13.4	
Actuated g/C Ratio	0.03	0.53		0.17	0.67		0.15	0.15		0.15	0.15	
Clearance Time (s)	4.0	4.2		4.0	4.2		5.6	5.6		5.6	5.6	
Vehicle Extension (s)	2.0	4.0		2.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	53	1802		298	2355		179	261		203	515	
v/s Ratio Prot	0.01	c0.18		0.03	c0.22			0.01			0.04	
v/s Ratio Perm							c0.07			0.03		
v/c Ratio	0.40	0.33		0.19	0.33		0.46	0.09		0.22	0.29	
Uniform Delay, d1	42.8	12.1		32.1	6.4		35.0	33.0		33.7	34.1	
Progression Factor	1.00	1.00		0.71	0.44		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.8	0.5		0.1	0.3		2.5	0.2		0.8	0.4	
Delay (s)	44.6	12.6		22.8	3.2		37.5	33.2		34.5	34.5	
Level of Service	D	B		C	A		D	C		C	C	
Approach Delay (s)		13.7			4.5			36.3			34.5	
Approach LOS		B			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.8
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



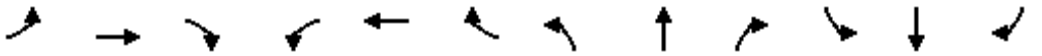
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	371	40	34	532	84	198	257	62	74	118	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		5.2	5.2	5.2	4.2	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3488		1770	3467		1770	1863	1583	1770	1770	
Flt Permitted	0.95	1.00		0.95	1.00		0.53	1.00	1.00	0.42	1.00	
Satd. Flow (perm)	1770	3488		1770	3467		990	1863	1583	790	1770	
Peak-hour factor, PHF	0.91	0.91	0.91	0.80	0.80	0.80	0.87	0.87	0.87	0.85	0.85	0.85
Adj. Flow (vph)	42	408	44	42	665	105	228	295	71	87	139	69
RTOR Reduction (vph)	0	6	0	0	10	0	0	0	50	0	25	0
Lane Group Flow (vph)	42	446	0	42	760	0	228	295	21	87	183	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	6.0	45.7		4.7	44.4		26.2	26.2	26.2	27.2	27.2	
Effective Green, g (s)	6.0	45.7		4.7	44.4		26.2	26.2	26.2	27.2	27.2	
Actuated g/C Ratio	0.07	0.51		0.05	0.49		0.29	0.29	0.29	0.30	0.30	
Clearance Time (s)	4.0	4.2		4.0	4.2		5.2	5.2	5.2	4.2	4.2	
Vehicle Extension (s)	2.0	4.8		2.0	4.8		4.8	4.8	4.8	4.8	4.8	
Lane Grp Cap (vph)	118	1771		92	1710		288	542	460	238	534	
v/s Ratio Prot	c0.02	0.13		0.02	c0.22			0.16			0.10	
v/s Ratio Perm							c0.23		0.01	0.11		
v/c Ratio	0.36	0.25		0.46	0.44		0.79	0.54	0.04	0.37	0.34	
Uniform Delay, d1	40.2	12.5		41.4	14.8		29.4	26.9	22.9	24.6	24.4	
Progression Factor	0.68	0.36		1.41	0.86		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.7	0.3		1.2	0.8		15.5	1.9	0.1	1.9	0.7	
Delay (s)	27.8	4.8		59.7	13.5		44.9	28.7	23.0	26.5	25.2	
Level of Service	C	A		E	B		D	C	C	C	C	
Approach Delay (s)		6.8			15.9			34.2			25.6	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	57.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	546	17	67	715	0	0	0	0	57	736	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2		4.2	4.2						4.2	4.2
Lane Util. Factor		0.95		1.00	0.95						0.95	1.00
Frt		1.00		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						1.00	1.00
Satd. Flow (prot)		3523		1770	3539						3527	1583
Flt Permitted		1.00		0.40	1.00						1.00	1.00
Satd. Flow (perm)		3523		749	3539						3527	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.81	0.81	0.81	0.92	0.92	0.92	0.81	0.81	0.81
Adj. Flow (vph)	0	581	18	83	883	0	0	0	0	70	909	14
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	0	0	0	10
Lane Group Flow (vph)	0	597	0	83	883	0	0	0	0	0	979	4
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases				6						4		4
Actuated Green, G (s)		55.8		55.8	55.8						25.8	25.8
Effective Green, g (s)		55.8		55.8	55.8						25.8	25.8
Actuated g/C Ratio		0.62		0.62	0.62						0.29	0.29
Clearance Time (s)		4.2		4.2	4.2						4.2	4.2
Vehicle Extension (s)		2.0		2.0	2.0						2.0	2.0
Lane Grp Cap (vph)		2184		464	2194						1011	453
v/s Ratio Prot		0.17			c0.25							
v/s Ratio Perm				0.11							0.28	0.00
v/c Ratio		0.27		0.18	0.40						0.97	0.01
Uniform Delay, d1		7.8		7.3	8.7						31.7	23.0
Progression Factor		0.74		1.80	1.61						1.00	1.00
Incremental Delay, d2		0.3		0.8	0.5						20.6	0.0
Delay (s)		6.1		13.9	14.5						52.3	23.0
Level of Service		A		B	B						D	C
Approach Delay (s)		6.1			14.4			0.0			51.9	
Approach LOS		A			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	27.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

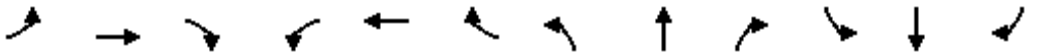


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	554	8	5	566	22	55	93	11	85	34	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2	4.2	4.0	4.2	4.2	4.2	4.2	4.0	4.2	4.2	4.2
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	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	3539	1583	1770	3539	1583	1681	1765	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.73	0.99	1.00	0.63	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1283	1749	1583	1177	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.89	0.89	0.89	0.86	0.86	0.86	0.70	0.70	0.70
Adj. Flow (vph)	47	602	9	6	636	25	64	108	13	121	49	231
RTOR Reduction (vph)	0	0	3	0	0	9	0	0	10	0	0	191
Lane Group Flow (vph)	47	602	6	6	636	16	58	114	3	121	49	40
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	pm+ov	Perm	NA	Perm
Protected Phases	3	8		7	4			6	7		2	
Permitted Phases			8			4	6		6	2		2
Actuated Green, G (s)	4.9	59.5	59.5	2.4	57.0	57.0	15.7	15.7	18.1	15.7	15.7	15.7
Effective Green, g (s)	4.9	59.5	59.5	2.4	57.0	57.0	15.7	15.7	18.1	15.7	15.7	15.7
Actuated g/C Ratio	0.05	0.66	0.66	0.03	0.63	0.63	0.17	0.17	0.20	0.17	0.17	0.17
Clearance Time (s)	4.0	4.2	4.2	4.0	4.2	4.2	4.2	4.2	4.0	4.2	4.2	4.2
Vehicle Extension (s)	2.0	4.9	4.9	2.0	4.9	4.9	4.9	4.9	2.0	4.9	4.9	4.9
Lane Grp Cap (vph)	96	2339	1046	47	2241	1002	223	305	318	205	324	276
v/s Ratio Prot	c0.03	0.17		0.00	c0.18				0.00		0.03	
v/s Ratio Perm			0.00			0.01	0.05	0.07	0.00	c0.10		0.03
v/c Ratio	0.49	0.26	0.01	0.13	0.28	0.02	0.26	0.37	0.01	0.59	0.15	0.15
Uniform Delay, d1	41.3	6.2	5.2	42.8	7.4	6.1	32.1	32.8	28.8	34.2	31.5	31.5
Progression Factor	1.09	0.68	1.00	1.25	0.77	0.57	0.85	0.86	0.66	1.00	1.00	1.00
Incremental Delay, d2	1.4	0.3	0.0	0.4	0.3	0.0	1.2	1.5	0.0	6.6	0.4	0.5
Delay (s)	46.4	4.5	5.2	54.0	6.0	3.5	28.6	29.8	18.9	40.8	31.9	32.0
Level of Service	D	A	A	D	A	A	C	C	B	D	C	C
Approach Delay (s)		7.5			6.3			28.7			34.6	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

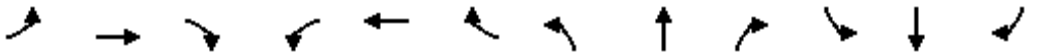
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	576	0	0	562	78	31	50	119	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2			4.2			3.2	3.2			
Lane Util. Factor	1.00	0.95			0.95			0.95	1.00			
Frt	1.00	1.00			0.98			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.98	1.00			
Satd. Flow (prot)	1770	3539			3474			3473	1583			
Flt Permitted	0.37	1.00			1.00			0.98	1.00			
Satd. Flow (perm)	685	3539			3474			3473	1583			
Peak-hour factor, PHF	0.91	0.91	0.91	0.87	0.87	0.87	0.82	0.82	0.82	0.92	0.92	0.92
Adj. Flow (vph)	81	633	0	0	646	90	38	61	145	0	0	0
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	127	0	0	0
Lane Group Flow (vph)	81	633	0	0	729	0	0	99	18	0	0	0
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		2			6			8				
Permitted Phases	2						8		8			
Actuated Green, G (s)	70.6	70.6			71.6			11.0	11.0			
Effective Green, g (s)	70.6	70.6			71.6			11.0	11.0			
Actuated g/C Ratio	0.78	0.78			0.80			0.12	0.12			
Clearance Time (s)	5.2	5.2			4.2			3.2	3.2			
Vehicle Extension (s)	2.0	2.0			2.0			2.0	2.0			
Lane Grp Cap (vph)	537	2776			2763			424	193			
v/s Ratio Prot		0.18			c0.21							
v/s Ratio Perm	0.12							0.03	0.01			
v/c Ratio	0.15	0.23			0.26			0.23	0.09			
Uniform Delay, d1	2.4	2.5			2.4			35.7	35.1			
Progression Factor	0.59	0.64			1.00			1.00	1.00			
Incremental Delay, d2	0.6	0.2			0.2			0.1	0.1			
Delay (s)	2.0	1.8			2.6			35.8	35.1			
Level of Service	A	A			A			D	D			
Approach Delay (s)		1.8			2.6			35.4			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM 2000 Control Delay	7.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



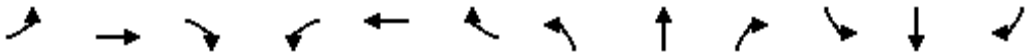
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	119	510	7	21	392	255	10	217	16	188	165	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6	4.6	4.6	4.6		4.6	4.6	4.6
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3532		1770	3539	1583	1770	3502		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.55	1.00		0.57	1.00	1.00
Satd. Flow (perm)	1770	3532		1770	3539	1583	1016	3502		1058	1863	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.77	0.77	0.77	0.91	0.91	0.91	0.89	0.89	0.89
Adj. Flow (vph)	127	543	7	27	509	331	11	238	18	211	185	115
RTOR Reduction (vph)	0	1	0	0	0	230	0	7	0	0	0	87
Lane Group Flow (vph)	127	549	0	27	509	101	11	249	0	211	185	28
Turn Type	Prot	NA		Prot	NA	custom	Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases						8	8			4		4
Actuated Green, G (s)	10.8	52.2		2.9	44.3	21.7	21.7	21.7		21.7	21.7	21.7
Effective Green, g (s)	10.8	52.2		2.9	44.3	21.7	21.7	21.7		21.7	21.7	21.7
Actuated g/C Ratio	0.12	0.58		0.03	0.49	0.24	0.24	0.24		0.24	0.24	0.24
Clearance Time (s)	4.0	4.6		4.0	4.6	4.6	4.6	4.6		4.6	4.6	4.6
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	212	2048		57	1741	381	244	844		255	449	381
v/s Ratio Prot	c0.07	0.16		0.02	c0.14			0.07			0.10	
v/s Ratio Perm						0.06	0.01			c0.20		0.02
v/c Ratio	0.60	0.27		0.47	0.29	0.27	0.05	0.30		0.83	0.41	0.07
Uniform Delay, d1	37.5	9.4		42.8	13.6	27.7	26.2	27.9		32.4	28.8	26.4
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	3.0	0.3		2.3	0.4	0.1	0.0	0.1		18.5	0.2	0.0
Delay (s)	40.6	9.7		45.1	14.0	27.8	26.2	28.0		50.9	29.0	26.4
Level of Service	D	A		D	B	C	C	C		D	C	C
Approach Delay (s)		15.5			20.2			27.9			37.4	
Approach LOS		B			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	6	211	17	135	13	222	0	0	34	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.2	4.6	4.6	4.6	4.2	4.6			4.6	4.6
Lane Util. Factor			1.00	1.00	1.00	0.88	1.00	1.00			1.00	1.00
Frt			0.86	1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00	0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1611	1770	1863	2787	1770	1863			1863	1583
Flt Permitted			1.00	0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1611	1770	1863	2787	1770	1863			1863	1583
Peak-hour factor, PHF	0.50	0.50	0.50	0.88	0.88	0.88	0.78	0.78	0.78	0.76	0.76	0.76
Adj. Flow (vph)	0	0	12	240	19	153	17	285	0	0	45	12
RTOR Reduction (vph)	0	0	9	0	0	117	0	0	0	0	0	5
Lane Group Flow (vph)	0	0	3	240	19	36	17	285	0	0	45	7
Turn Type			pm+ov	Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1		4		1	6			2	
Permitted Phases			8	4		4						2
Actuated Green, G (s)			23.6	21.0	21.0	21.0	2.6	59.8			53.0	53.0
Effective Green, g (s)			23.6	21.0	21.0	21.0	2.6	59.8			53.0	53.0
Actuated g/C Ratio			0.26	0.23	0.23	0.23	0.03	0.66			0.59	0.59
Clearance Time (s)			4.2	4.6	4.6	4.6	4.2	4.6			4.6	4.6
Vehicle Extension (s)			2.0	5.3	5.3	5.3	2.0	5.1			5.2	5.2
Lane Grp Cap (vph)			422	413	434	650	51	1237			1097	932
v/s Ratio Prot			0.00		0.01		0.01	c0.15			0.02	
v/s Ratio Perm			0.00	c0.14		0.01						0.00
v/c Ratio			0.01	0.58	0.04	0.05	0.33	0.23			0.04	0.01
Uniform Delay, d1			24.5	30.6	26.7	26.8	42.9	6.0			7.8	7.6
Progression Factor			1.00	1.00	1.00	1.00	1.00	1.00			0.28	1.00
Incremental Delay, d2			0.0	3.4	0.1	0.1	1.4	0.4			0.1	0.0
Delay (s)			24.5	34.0	26.8	26.9	44.3	6.4			2.3	7.7
Level of Service			C	C	C	C	D	A			A	A
Approach Delay (s)		24.5			31.0			8.5			3.4	
Approach LOS		C			C			A			A	

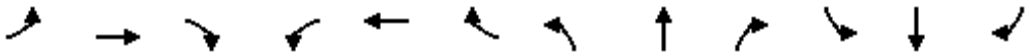
Intersection Summary			
HCM 2000 Control Delay	20.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	146	31	0	0	0	0	0	251	553	100	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.92	0.92	0.92	0.83	0.83	0.83	0.86	0.86	0.86
Hourly flow rate (vph)	0	176	37	0	0	0	0	0	302	643	116	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											1010	
pX, platoon unblocked												
vC, conflicting volume	1554	1705	116	1528	1402	0	116			302		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1554	1705	116	1528	1402	0	116			302		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	0	96	0	100	100	100			49		
cM capacity (veh/h)	55	45	936	0	68	1085	1472			1259		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2
Volume Total	117	96	302	643	116
Volume Left	0	0	0	643	0
Volume Right	0	37	302	0	0
cSH	45	71	1700	1259	1700
Volume to Capacity	2.62	1.35	0.18	0.51	0.07
Queue Length 95th (ft)	314	194	0	75	0
Control Delay (s)	928.8	327.4	0.0	10.8	0.0
Lane LOS	F	F		B	
Approach Delay (s)	658.1		0.0	9.2	
Approach LOS	F				

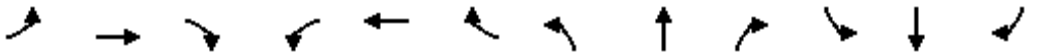
Intersection Summary				
Average Delay	115.5			
Intersection Capacity Utilization	61.2%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	58	10	182	11	319	0	0	209	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.81	0.81	0.81	0.86	0.86	0.86	0.79	0.79	0.79
Hourly flow rate (vph)	0	0	0	72	12	225	13	371	0	0	265	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						16						
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											727	
pX, platoon unblocked												
vC, conflicting volume	605	672	275	672	683	185	286			371		
vC1, stage 1 conf vol	275	275		397	397							
vC2, stage 2 conf vol	330	397		275	286							
vCu, unblocked vol	605	672	275	672	683	185	286			371		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	86	98	73	99			100		
cM capacity (veh/h)	430	531	722	523	525	825	1273			1184		

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	309	136	247	286
Volume Left	72	13	0	0
Volume Right	225	0	0	22
cSH	1133	1273	1700	1700
Volume to Capacity	0.27	0.01	0.15	0.17
Queue Length 95th (ft)	28	1	0	0
Control Delay (s)	11.6	0.8	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	11.6	0.3		0.0
Approach LOS	B			

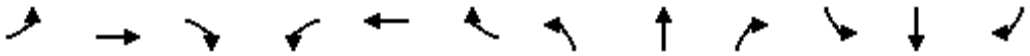
Intersection Summary				
Average Delay	3.8			
Intersection Capacity Utilization	30.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	117	30	41	0	0	0	0	213	52	95	172	0
Peak Hour Factor	0.80	0.80	0.80	0.92	0.92	0.92	0.82	0.82	0.82	0.83	0.83	0.83
Hourly flow rate (vph)	146	38	51	0	0	0	0	260	63	114	207	0

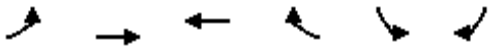
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	165	70	173	150	184	138
Volume Left (vph)	146	0	0	0	114	0
Volume Right (vph)	0	51	0	63	0	0
Hadj (s)	0.48	-0.48	0.03	-0.26	0.35	0.03
Departure Headway (s)	6.6	5.6	5.7	5.4	6.0	5.7
Degree Utilization, x	0.30	0.11	0.27	0.22	0.31	0.22
Capacity (veh/h)	518	599	609	639	578	609
Control Delay (s)	11.2	8.1	9.6	8.8	10.4	9.1
Approach Delay (s)	10.2		9.2		9.8	
Approach LOS	B		A		A	

Intersection Summary				
Delay	9.7			
Level of Service	A			
Intersection Capacity Utilization	31.5%	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)	0	0	0	6	553	9	26	15	0	0	57	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.6		5.6	5.6			5.6	
Lane Util. Factor					0.95		1.00	1.00			1.00	
Frt					1.00		1.00	1.00			0.97	
Flt Protected					1.00		0.95	1.00			1.00	
Satd. Flow (prot)					3565		1805	1900			1722	
Flt Permitted					1.00		0.71	1.00			1.00	
Satd. Flow (perm)					3565		1346	1900			1722	
Peak-hour factor, PHF	0.85	0.85	0.85	0.86	0.86	0.86	0.34	0.34	0.34	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	7	643	10	76	44	0	0	57	18
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	8	0
Lane Group Flow (vph)	0	0	0	0	659	0	76	44	0	0	67	0
Heavy Vehicles (%)	2%	2%	2%	0%	1%	0%	0%	0%	0%	0%	7%	6%
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4			2					
Actuated Green, G (s)					16.4		32.4	32.4			32.4	
Effective Green, g (s)					16.4		32.4	32.4			32.4	
Actuated g/C Ratio					0.27		0.54	0.54			0.54	
Clearance Time (s)					5.6		5.6	5.6			5.6	
Lane Grp Cap (vph)					974		726	1026			929	
v/s Ratio Prot								0.02			0.04	
v/s Ratio Perm					0.18		c0.06					
v/c Ratio					0.68		0.10	0.04			0.07	
Uniform Delay, d1					19.4		6.7	6.5			6.6	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					3.8		0.3	0.1			0.1	
Delay (s)					23.2		7.0	6.6			6.8	
Level of Service					C		A	A			A	
Approach Delay (s)		0.0			23.2			6.9			6.8	
Approach LOS		A			C			A			A	

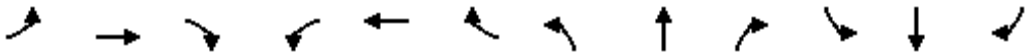
Intersection Summary			
HCM 2000 Control Delay	19.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	34	329	0	0	66	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2			4.0	
Lane Util. Factor		0.95			0.97	
Frt		1.00			1.00	
Flt Protected		1.00			0.95	
Satd. Flow (prot)		3529			3303	
Flt Permitted		1.00			0.95	
Satd. Flow (perm)		3529			3303	
Peak-hour factor, PHF	0.86	0.86	0.85	0.85	0.83	0.83
Adj. Flow (vph)	40	383	0	0	80	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	423	0	0	80	0
Heavy Vehicles (%)	0%	2%	0%	0%	6%	0%
Turn Type	Perm	NA			Prot	
Protected Phases		8			2	
Permitted Phases	8					
Actuated Green, G (s)		30.0			19.0	
Effective Green, g (s)		30.0			19.0	
Actuated g/C Ratio		0.52			0.33	
Clearance Time (s)		4.2			4.0	
Vehicle Extension (s)		3.0			3.0	
Lane Grp Cap (vph)		1850			1097	
v/s Ratio Prot					c0.02	
v/s Ratio Perm		0.12				
v/c Ratio		0.23			0.07	
Uniform Delay, d1		7.3			13.1	
Progression Factor		1.00			1.00	
Incremental Delay, d2		0.1			0.0	
Delay (s)		7.4			13.1	
Level of Service		A			B	
Approach Delay (s)		7.4	0.0		13.1	
Approach LOS		A	A		B	

Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.17		
Actuated Cycle Length (s)	57.2	Sum of lost time (s)	8.2
Intersection Capacity Utilization	76.5%	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)	15	231	33	5	339	30	18	20	22	15	20	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.99		1.00	0.92		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1828		1770	1840		1770	1717		1770	1742	
Flt Permitted	0.42	1.00		0.56	1.00		0.72	1.00		0.73	1.00	
Satd. Flow (perm)	774	1828		1051	1840		1348	1717		1357	1742	
Peak-hour factor, PHF	0.87	0.87	0.87	0.79	0.79	0.79	0.94	0.94	0.94	0.69	0.69	0.69
Adj. Flow (vph)	17	266	38	6	429	38	19	21	23	22	29	22
RTOR Reduction (vph)	0	8	0	0	5	0	0	16	0	0	15	0
Lane Group Flow (vph)	17	296	0	6	462	0	19	28	0	22	36	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	30.6	30.6		30.6	30.6		18.6	18.6		18.6	18.6	
Effective Green, g (s)	30.6	30.6		30.6	30.6		18.6	18.6		18.6	18.6	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.31	0.31		0.31	0.31	
Clearance Time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Lane Grp Cap (vph)	394	932		536	938		417	532		420	540	
v/s Ratio Prot		0.16			c0.25			0.02			c0.02	
v/s Ratio Perm	0.02			0.01			0.01			0.02		
v/c Ratio	0.04	0.32		0.01	0.49		0.05	0.05		0.05	0.07	
Uniform Delay, d1	7.4	8.6		7.2	9.6		14.5	14.5		14.5	14.6	
Progression Factor	0.84	0.76		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.9		0.0	1.8		0.2	0.2		0.2	0.2	
Delay (s)	6.4	7.4		7.3	11.5		14.7	14.7		14.8	14.8	
Level of Service	A	A		A	B		B	B		B	B	
Approach Delay (s)		7.4			11.4			14.7			14.8	
Approach LOS		A			B			B			B	

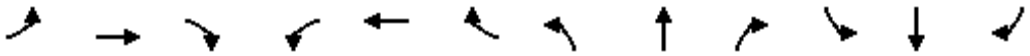
Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	64	6	8	113	6	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.2	4.2
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1795		1805	1900	1805	1615
Flt Permitted	1.00		0.71	1.00	0.95	1.00
Satd. Flow (perm)	1795		1343	1900	1805	1615
Peak-hour factor, PHF	0.92	0.92	0.66	0.66	1.00	1.00
Adj. Flow (vph)	70	7	12	171	6	11
RTOR Reduction (vph)	4	0	0	0	0	7
Lane Group Flow (vph)	74	0	12	171	6	4
Heavy Vehicles (%)	5%	0%	0%	0%	0%	0%
Turn Type	NA		Perm	NA	Prot	Perm
Protected Phases	8			4	6	
Permitted Phases			4			6
Actuated Green, G (s)	30.0		30.0	30.0	21.8	21.8
Effective Green, g (s)	30.0		30.0	30.0	21.8	21.8
Actuated g/C Ratio	0.50		0.50	0.50	0.36	0.36
Clearance Time (s)	4.0		4.0	4.0	4.2	4.2
Lane Grp Cap (vph)	897		671	950	655	586
v/s Ratio Prot	0.04			c0.09	c0.00	
v/s Ratio Perm			0.01			0.00
v/c Ratio	0.08		0.02	0.18	0.01	0.01
Uniform Delay, d1	7.8		7.6	8.2	12.2	12.2
Progression Factor	1.00		1.36	1.29	1.00	1.00
Incremental Delay, d2	0.2		0.0	0.4	0.0	0.0
Delay (s)	8.0		10.3	11.0	12.2	12.2
Level of Service	A		B	B	B	B
Approach Delay (s)	8.0			11.0	12.2	
Approach LOS	A			B	B	

Intersection Summary			
HCM 2000 Control Delay	10.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.11		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



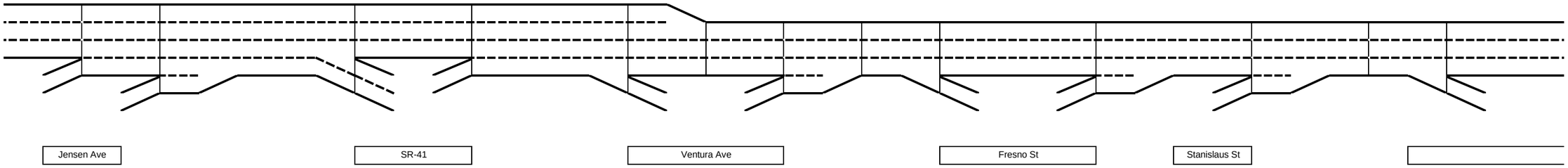
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	71	14	25	140	27	8	63	10	21	74	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.98			0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	1817		1770	1817			1822			1808	
Flt Permitted	0.63	1.00		0.69	1.00			0.98			0.95	
Satd. Flow (perm)	1175	1817		1285	1817			1786			1728	
Peak-hour factor, PHF	0.82	0.82	0.82	0.83	0.83	0.83	0.84	0.84	0.84	0.93	0.93	0.93
Adj. Flow (vph)	16	87	17	30	169	33	10	75	12	23	80	18
RTOR Reduction (vph)	0	10	0	0	12	0	0	7	0	0	11	0
Lane Group Flow (vph)	16	94	0	30	190	0	0	90	0	0	110	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	24.8	24.8		24.8	24.8			24.8			24.8	
Effective Green, g (s)	24.8	24.8		24.8	24.8			24.8			24.8	
Actuated g/C Ratio	0.41	0.41		0.41	0.41			0.41			0.41	
Clearance Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Lane Grp Cap (vph)	485	751		531	751			738			714	
v/s Ratio Prot		0.05			c0.10							
v/s Ratio Perm	0.01			0.02				0.05			c0.06	
v/c Ratio	0.03	0.13		0.06	0.25			0.12			0.15	
Uniform Delay, d1	10.5	10.9		10.6	11.5			10.9			11.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.1	0.3		0.2	0.8			0.3			0.5	
Delay (s)	10.6	11.2		10.8	12.3			11.2			11.5	
Level of Service	B	B		B	B			B			B	
Approach Delay (s)		11.1			12.1			11.2			11.5	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.20		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

APPENDIX C-2:
TECHNICAL CALCULATIONS –
EXISTING CONDITIONS
FREEWAY LOS

Fresno Downtown Plans
Existing Conditions
SR-99 Northbound



Input Data

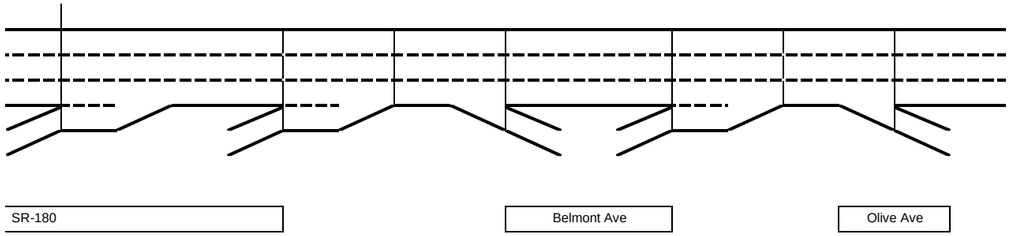
Number		1		2			3	4		5		6	7		8		9	10					
Type		Merge		Weave			Merge	Diverge		Basic		Merge	Diverge		Merge		Merge	Diverge					
Length		1,185		2,760		2,355	725	725	2,095			383	383	2,170	1,410		790	790	1,810				
Mainline Volume	AM	3,603		3,682		1,492	1,492	1,923		1,802		1,802	2,589	1,969	1,969		2,276	2,621	1,757				
	PM	3,900		4,086		2,179	2,179	2,831		2,742		2,742	3,836	3,466	3,466		4,134	5,076	3,712				
Ramp Volume	AM	79	565		2,755		431	121				787	620		307		345	864					
	PM	186	627		2,534		652	89				1,094	370		668		942	1,364					

Operations Analysis	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Basic Section (HCM 2010)																						
Volume			4,247	4,713			1,923	2,831		1,802	2,742		2,589	3,836							2,621	5,076
PHF			0.86	0.91			0.86	0.91		0.86	0.91		0.86	0.92							0.87	0.95
Lanes			4	4			4	4		3	3		3	3							3	3
Terrain			Level	Level			Level	Level		Level	Level		Level	Level							Level	Level
Truck/Bus %			9%	7%			10%	7%		10%	7%		11%	6%							11%	6%
RV %			1%	1%			1%	1%		1%	1%		1%	1%							1%	1%
Population Factor			1.00	1.00			1.00	1.00		1.00	1.00		1.00	1.00							1.00	1.00
Free Flow Speed			65	65			65	65		65	65		65	65							65	65
Speed			65.0	65.0			65.0	65.0		65.0	65.0		65.0	65.0							65.0	63.6
V/C Ratio			0.55	0.57			0.25	0.34		0.31	0.44		0.45	0.61							0.45	0.78
Density			**19.9**	**20.7**			**9.0**	**12.4**		**11.3**	**16.0**		**16.3**	**22.1**							**16.3**	**28.9**
Level of Service			**C**	**C**			**A**	**B**		**B**	**B**		**B**	**C**							**B**	**D**

Ramp Junction (HCM 2010)																						
Mainline Lanes	3	3					3	3	4	4			3	3	3	3			3	3	3	3
Mainline Free Flow Speed	65	65					65	65	65	65			65	65	65	65			65	65	65	65
Mainline Volume	3,603	3,900					1,492	2,179	1,923	2,831			1,802	2,742	2,589	3,836			1,969	3,466	2,621	5,076
Mainline PHF	0.86	0.91					0.86	0.91	0.86	0.91			0.86	0.91	0.86	0.92			0.87	0.93	0.87	0.95
Mainline Terrain	Level	Level					Level	Level	Level	Level			Level	Level	Level	Level			Level	Level	Level	Level
Mainline Truck/Bus %	9%	7%					10%	7%	10%	7%			10%	7%	11%	6%			11%	6%	11%	6%
Mainline RV %	1%	1%					1%	1%	1%	1%			1%	1%	1%	1%			1%	1%	1%	1%
Mainline Population 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	1.00	1.00
Ramp Type	Right	Right					Right	Right	Right	Right			Right	Right	Right	Right			Right	Right	Right	Right
Ramp Lanes	1	1					1	1	1	1			1	1	1	1			1	1	1	1
Ramp Free Flow Speed	25	25					55	55	45	45			45	45	45	45			45	45	50	50
Ramp Volume	79	186					431	652	121	89			787	1,094	620	370			307	668	864	1,364
Accel/Decel Length	1,185	1,185					725	725	140	140			200	200	140	140			500	500	140	140
Ramp PHF	0.85	0.85					0.92	0.84	0.70	0.64			0.78	0.84	0.90	0.86			0.85	0.90	0.88	0.89
Ramp Terrain	Level	Level					Level	Level	Level	Level			Level	Level	Level	Level			Level	Level	Level	Level
Ramp Truck/Bus %	8%	5%					15%	8%	5%	2%			5%	2%	5%	2%			5%	2%	2%	2%
Ramp RV %	0%	0%					0%	0%	0%	0%			0%	0%	0%	0%			0%	0%	0%	0%
Ramp Population 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	1.00	1.00
Speed	58.7	58.5					60.5	59.9	64.1	64.4			57.5	55.3	56.7	57.3			59.8	58.2	59.4	-
V/C Ratio	0.62	0.64					0.35	0.50	0.26	0.34			0.62	0.83	0.72	0.98			0.39	0.66	0.61	1.22
Density	**19.6**	**20.9**					**13.1**	**18.4**	**12.7**	**15.8**			**25.8**	**33.3**	**30.4**	**40.0**			**16.1**	**25.6**	**25.9**	**-**
Level of Service	**B**	**C**					**B**	**B**	**B**	**B**			**C**	**D**	**D**	**E**			**B**	**C**	**C**	**F**

Weave (Leisch Method)																						
Entering Lanes			4	4																		
Ramp to Ramp Volume %			35%	41%																		
On to ML Truck %			8%	5%																		
ML to Off Truck %			4%	2%																		
Balanced Weave Section?			Y	Y																		
Service Volume			1,306	1,426																		
V/C Ratio			0.69	0.75																		
Level of Service			**C**	**C**																		

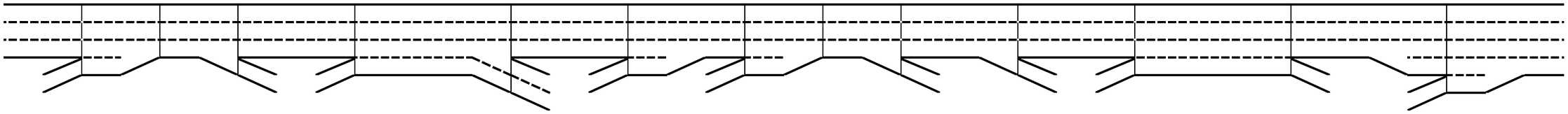
Fresno Downtown Pl
Existing Conditions
SR-99 Northbound



Input Data

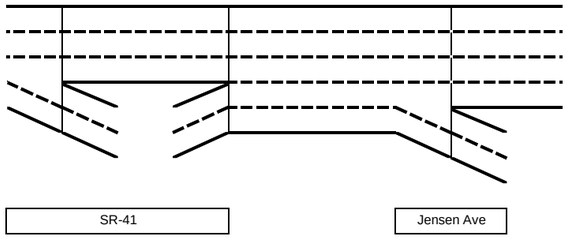
Number		11		12		13			14		15		
Type		Merge		Merge		Diverge			Merge		Diverge		
Length		1,900		945		945		1,545	520		520		
Mainline Volume	AM	1,757		2,815		4,724		4,429	4,429		4,502		
	PM	3,712		4,544		6,716		6,391	6,391		6,578		
Ramp Volume	AM	1,058		1,909		295			73		279		
	PM	832		2,172		325			187		311		
Operations Analysis		**AM**	**PM**	**AM**	**PM**	**AM**	**PM**		**AM**	**PM**	**AM**	**PM**	
Basic Section (HCM 2010)													
Volume						4,724	6,716				4,502	6,578	
PHF						0.88	0.97				0.88	0.97	
Lanes						3	3				3	3	
Terrain						Level	Level				Level	Level	
Truck/Bus %						12%	5%				12%	5%	
RV %						1%	1%				1%	1%	
Population Factor						1.00	1.00				1.00	1.00	
Free Flow Speed						65	65				65	65	
Speed						62.9	-				63.8	53.2	
V/C Ratio						0.81	1.01				0.77	0.99	
Density						**30.2**	**-**				**28.4**	**43.6**	
Level of Service						**D**	**F**				**D**	**E**	
Ramp Junction (HCM 2010)													
Mainline Lanes		3	3	3	3	3	3		3	3	3	3	
Mainline Free Flow Speed		65	65	65	65	65	65		65	65	65	65	
Mainline Volume		1,757	3,712	2,815	4,544	4,724	6,716		4,429	6,391	4,502	6,578	
Mainline PHF		0.87	0.96	0.87	0.96	0.88	0.97		0.88	0.97	0.88	0.97	
Mainline Terrain		Level	Level	Level	Level	Level	Level		Level	Level	Level	Level	
Mainline Truck/Bus %		11%	6%	11%	6%	12%	5%		12%	5%	12%	5%	
Mainline RV %		1%	1%	1%	1%	1%	1%		1%	1%	1%	1%	
Mainline Population Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Ramp Type		Right	Right	Right	Right	Right	Right		Right	Right	Right	Right	
Ramp Lanes		1	1	1	1	1	1		1	1	1	1	
Ramp Free Flow Speed		25	25	45	45	45	45		45	45	45	45	
Ramp Volume		1,058	832	1,909	2,172	295	325		73	187	279	311	
Accel/Decel Length		350	350	300	300	140	140		250	250	140	140	
Ramp PHF		0.84	0.95	0.92	0.98	0.77	0.80		0.73	0.73	0.85	0.85	
Ramp Terrain		Level	Level	Level	Level	Level	Level		Level	Level	Level	Level	
Ramp Truck/Bus %		2%	2%	6%	5%	13%	8%		16%	6%	15%	7%	
Ramp RV %		0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	
Ramp Population Factor		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Speed		58.5	57.4	-	-	-	-		54.7	-	60.7	60.0	
V/C Ratio		0.67	0.70	1.02	1.14	1.30	1.62		0.89	1.13	0.78	0.99	
Density		**22.4**	**28.1**	**-**	**-**	**-**	**-**		**35.9**	**-**	**32.6**	**40.1**	
Level of Service		**C**	**D**	**F**	**F**	**F**	**F**		**E**	**F**	**D**	**E**	
Weave (Leisch Method)													
Entering Lanes													
Ramp to Ramp Volume %													
On to ML Truck %													
ML to Off Truck %													
Balanced Weave Section?													
Service Volume													
V/C Ratio													
Level of Service													

Fresno Downtown Plans
Existing Conditions
SR-99 Southbound



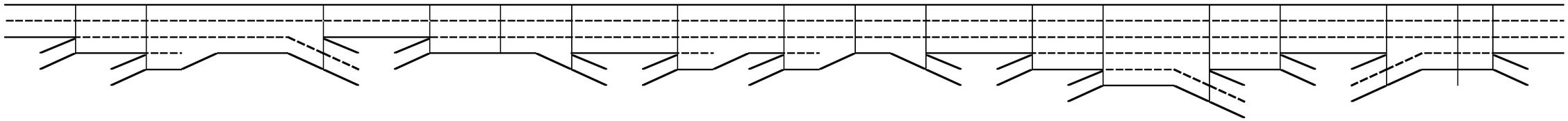
		Olive Ave		Belmont Ave		SR-180		Stanislaus St		Fresno St		Ventura Ave	
Input Data													
Number		51		52		53		54	55	56	57	58	59
Type		Merge		Diverge		Weave		Merge	Merge	Diverge	Diverge	Weave	Weave
Length		595		600	1,950	1,510	2,145	1,020	1,185	1,185	1,540	1,935	725	1,010	1,335	1,315
Mainline Volume	AM	5,841		6,249	6,170	6,170	3,301	3,301	4,187	4,522	3,811	3,201	3,201	2,405	2,405
	PM	4,373		4,739	4,631	4,631	2,359	2,359	2,887	3,037	2,634	2,296	2,296	2,101	2,101
Ramp Volume	AM	408		79		245	3,114	886	335	711	610		219	1,015		100	550
	PM	366		108		340	2,612	528	150	403	338		494	689		151	343
Operations Analysis		**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Basic Section (HCM 2010)																			
Volume				6,249	4,739	6,415	4,971					4,522	3,037			3,420	2,790			2,505	2,252
PHF				0.94	0.91	0.94	0.91					0.94	0.91			0.94	0.91			0.94	0.91
Lanes				3	3	4	4					3	3			4	4			4	4
Terrain				Level	Level	Level	Level					Level	Level			Level	Level			Level	Level
Truck/Bus %				8%	11%	8%	11%					8%	10%			8%	10%			8%	9%
RV %				1%	1%	1%	1%					1%	1%			1%	1%			1%	1%
Population Factor				1.00	1.00	1.00	1.00					1.00	1.00			1.00	1.00			1.00	1.00
Free Flow Speed				65	65	65	65					65	65			65	65			65	65
Speed				53.7	63.6	64.1	65.0					64.7	65.0			65.0	65.0			65.0	65.0
V/C Ratio				0.98	0.78	0.76	0.61					0.71	0.50			0.40	0.34			0.30	0.28
Density				**43.0**	**28.9**	**27.7**	**22.2**					**25.8**	**18.0**			**14.6**	**12.4**			**10.7**	**10.0**
Level of Service				**E**	**D**	**D**	**C**					**C**	**C**			**B**	**B**			**A**	**A**
Ramp Junction (HCM 2010)																			
Mainline Lanes		3	3	3	3					3	3	3	3	3	3						Merge
Mainline Free Flow Speed		65	65	65	65					65	65	65	65	65	65						4
Mainline Volume		5,841	4,373	6,249	4,739					3,301	2,359	4,187	2,887	4,522	3,037	3,811	2,634				65
Mainline PHF		0.94	0.91	0.94	0.91					0.94	0.91	0.94	0.91	0.94	0.91	0.94	0.91				2,101
Mainline Terrain		Level	Level	Level	Level					Level	Level	Level	Level	Level	Level	Level	Level				0.91
Mainline Truck/Bus %		8%	11%	8%	11%					8%	10%	8%	10%	8%	10%	8%	10%				Level
Mainline RV %		1%	1%	1%	1%					1%	1%	1%	1%	1%	1%	1%	1%				9%
Mainline Population 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				1%
Ramp Type		Right	Right	Right	Right					Right	Right	Right	Right	Right	Right	Right	Right				1.00
Ramp Lanes		1	1	1	1					1	1	1	1	1	1	1	1				Right
Ramp Free Flow Speed		45	45	45	45					25	25	50	50	45	45	45	45				1
Ramp Volume		408	366	79	108					886	528	335	150	711	403	610	338				45
Accel/Decel Length		250	250	140	140					450	450	450	450	140	140	140	140				151
Ramp PHF		0.85	0.85	0.79	0.79					0.90	0.87	0.84	0.80	0.92	0.90	0.76	0.89				250
Ramp Terrain		Level	Level	Level	Level					Level	Level	Level	Level	Level	Level	Level	Level				0.64
Ramp Truck/Bus %		12%	8%	7%	13%					5%	4%	7%	10%	2%	4%	2%	4%				Level
Ramp RV %		0%	0%	0%	0%					0%	0%	0%	0%	0%	0%	0%	0%				7%
Ramp Population 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				0%
Speed		-	53.6	-	60.5					57.6	59.0	57.5	59.3	60.0	60.8	60.1	60.8				1.00
V/C Ratio		1.15	0.93	1.12	0.92					0.69	0.48	0.73	0.50	0.78	0.56	0.66	0.49				61.1
Density		**-**	**37.2**	**-**	**37.8**					**26.9**	**19.7**	**28.7**	**19.7**	**32.5**	**24.0**	**28.1**	**21.5**				0.28
Level of Service		**F**	**E**	**F**	**E**					**C**	**B**	**D**	**B**	**D**	**C**	**D**	**C**				**13.2**
Weave (Leisch Method)																					**B**
Entering Lanes						3	3											3	3	4	4
Ramp to Ramp Volume %						46%	52%											27%	24%	13%	7%
On to ML Truck %						17%	4%											5%	7%	5%	7%
ML to Off Truck %						5%	3%											2%	4%	5%	3%
Balanced Weave Section?						Y	Y											N	N	Y	Y
Service Volume						1,748	1,379											975	898	654	-
V/C Ratio						0.92	0.73											0.51	0.47	0.34	-
Level of Service						**E**	**D**											**B**	**B**	**A**	**-**

Fresno Downtown Pl
Existing Conditions
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Input Data						
Number				60		
Type				Weave		
Length			2,610	1,850		
Mainline Volume	AM		1,955	1,955		
	PM		1,909	1,909		
Ramp Volume	AM			2,259	486	
	PM			2,617	340	
Operations Analysis				**AM**	**PM**	
Basic Section (HCM 2010)						
Volume				4,214	4,526	
PHF				0.94	0.90	
Lanes				5	5	
Terrain				Level	Level	
Truck/Bus %				8%	8%	
RV %				1%	1%	
Population Factor				1.00	1.00	
Free Flow Speed				65	65	
Speed				65.0	65.0	
V/C Ratio				0.40	0.45	
Density				**14.4**	**16.1**	
Level of Service				**B**	**B**	
Ramp Junction (HCM 2010)	Diverge				Merge	Diverge
Mainline Lanes	4				3	4
Mainline Free Flow Speed	65				65	65
Mainline Volume	2,252				1,909	4,526
Mainline PHF	0.91				0.90	0.90
Mainline Terrain	Level				Level	Level
Mainline Truck/Bus %	9%				8%	8%
Mainline RV %	1%				1%	1%
Mainline Population Factor	1.00				1.00	1.00
Ramp Type	Major				Major	Right
Ramp Lanes	2				2	2
Ramp Free Flow Speed	55				55	55
Ramp Volume	343				2,617	340
Accel/Decel Length	140				1,500	140
Ramp PHF	0.82				0.87	0.85
Ramp Terrain	Level				Level	Level
Ramp Truck/Bus %	3%				7%	3%
Ramp RV %	0%				0%	0%
Ramp Population Factor	1.00				1.00	1.00
Speed	66.4				59.0	65.3
V/C Ratio	0.28				0.66	0.69
Density	**7.1**				**N/A**	**3.1**
Level of Service	**A**				**-**	**A**
Weave (Leisch Method)						
Entering Lanes				3	3	
Ramp to Ramp Volume %				27%	17%	
On to ML Truck %				3%	2%	
ML to Off Truck %				2%	4%	
Balanced Weave Section?				Y	Y	
Service Volume				836	-	
V/C Ratio				0.44	-	
Level of Service				**B**	**-**	

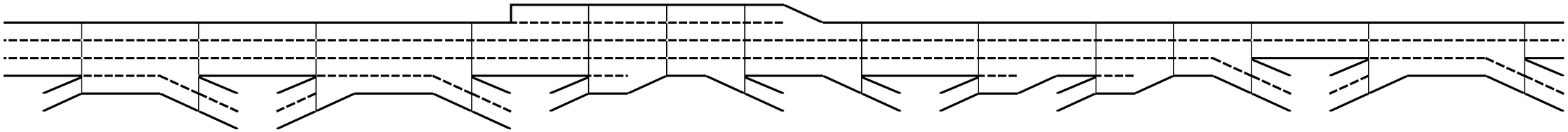
Fresno Downtown Plans
Existing Conditions
SR-41 Northbound



Input Data

Number		101		102			103	104		105		106	107		108	109		110		111											
Type		Merge		Weave			Merge	Diverge		Merge		Merge	Diverge		Merge	Weave		Diverge		Weave											
Length		815		1,915		2,290	1,020	1,020	1,650	1,405		1,370	1,370	1,170	1,070	1,720		820	2,245	1,550											
Mainline Volume	AM	1,189		1,518		1,297	1,297	4,052	3,836	3,836		3,953	4,195	3,814	3,814	3,952		3,308	3,063	3,063											
	PM	1,448		1,851		1,594	1,594	4,128	3,962	3,962		4,371	5,215	4,811	4,811	5,496		4,155	3,872	3,872											
Ramp Volume	AM	329	210		431		2,755	216		117		242	381		138	911	1,555	245		3,193	702										
	PM	403	395		652		2,534	166		409		844	404		685	1,158	2,499	283		2,967	924										
Operations Analysis		**AM**	**PM**	**AM**	**PM**		**AM**	**PM**		**AM**	**PM**	**AM**	**PM**		**AM**	**PM**		**AM**	**PM**		**AM**	**PM**										
Basic Section (HCM 2010)																															
Volume				1,728	2,246			4,052	4,128				4,195	5,215			4,863	6,654			6,256	6,839										
PHF				0.83	0.96			0.83	0.96				0.83	0.96			0.83	0.96			0.83	0.96										
Lanes				3	3			3	3				3	3			5	5			4	4										
Terrain				Level	Level			Level	Level				Level	Level			Level	Level			Level	Level										
Truck/Bus %				3%	2%			3%	2%				3%	2%			3%	2%			3%	2%										
RV %				0%	0%			0%	0%				0%	0%			0%	0%			0%	0%										
Population Factor				1.00	1.00			1.00	1.00				1.00	1.00			1.00	1.00			1.00	1.00										
Free Flow Speed				65	65			65	65				65	65			65	65			65	65										
Speed				65.0	65.0			64.7	65.0				64.5	63.7			65.0	65.0			62.7	63.9										
V/C Ratio				0.30	0.34			0.70	0.62				0.73	0.78			0.51	0.60			0.81	0.77										
Density				**10.8**	**12.1**			**25.5**	**22.3**				**26.5**	**28.7**			**18.3**	**21.5**			**30.5**	**28.1**										
Level of Service				**A**	**B**			**C**	**C**				**D**	**D**			**C**	**C**			**D**	**D**										
Ramp Junction (HCM 2010)				Merge	Diverge																										
Mainline Lanes		2	2	3	3		2	2	3	3		3	3	3	3	3	3			4	4										
Mainline Free Flow Speed		65	65	65	65		65	65	65	65		65	65	65	65	65	65			65	65										
Mainline Volume		1,189	1,448	1,518	1,728		1,297	1,594	4,052	4,128		3,836	3,962	3,953	4,371	4,195	5,215			3,814	4,811										
Mainline PHF		0.83	0.96	0.83	0.96		0.83	0.96	0.83	0.96		0.83	0.96	0.83	0.96	0.83	0.96			0.83	0.96										
Mainline Terrain		Level	Level	Level	Level		Level	Level	Level	Level		Level	Level	Level	Level	Level	Level			Level	Level										
Mainline Truck/Bus %		3%	2%	3%	2%		3%	2%	3%	2%		3%	2%	3%	2%	3%	2%			3%	2%										
Mainline RV %		0%	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%	0%	0%			0%	0%										
Mainline Population 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	1.00	1.00			1.00	1.00										
Ramp Type		Right	Right	Right	Major		Major	Major	Right	Right		Right	Right	Right	Right	Right	Right			Right	Right										
Ramp Lanes		1	1	1	2		2	2	1	1		1	1	1	1	1	1			1	1										
Ramp Free Flow Speed		25	25	45	55		55	55	45	45		45	45	45	45	45	45			25	25										
Ramp Volume		329	403	210	431		2,755	2,534	216	166		117	409	242	844	381	404			138	685										
Accel/Decel Length		815	815	400	140		375	375	140	140		250	250	350	350	140	140			1,070	1,070										
Ramp PHF		0.85	0.90	0.85	0.92		0.83	0.84	0.79	0.94		0.77	0.74	0.79	0.84	0.75	0.95			0.70	0.76										
Ramp Terrain		Level	Level	Level	Level		Level	Level	Level	Level		Level	Level	Level	Level	Level	Level			Level	Level										
Ramp Truck/Bus %		4%	2%	4%	15%		4%	2%	4%	2%		4%	2%	4%	2%	4%	2%			4%	2%										
Ramp RV %		0%	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%	0%	0%			0%	0%										
Ramp Population 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	1.00	1.00			1.00	1.00										
Speed		58.0	57.9	60.1	60.5		50.6	53.5	61.0	61.3		57.8	57.8	57.5	56.3	60.5	60.0			58.2	55.8										
V/C Ratio		0.40	0.43	0.30	0.76		0.72	0.67	0.73	0.65		0.69	0.67	0.73	0.81	0.76	0.93			0.66	0.87										
Density		**14.6**	**15.6**	**13.3**	**31.6**		**N/A**	**N/A**	**30.5**	**27.6**		**26.4**	**27.0**	**28.2**	**31.8**	**31.6**	**38.2**			**22.3**	**29.4**										
Level of Service		**B**	**B**	**B**	**D**		**-**	**-**	**D**	**C**		**C**	**C**	**D**	**D**	**D**	**E**			**C**	**D**										
Weave (Leisch Method)																															
Entering Lanes				3	3											4	4			3	3										
Ramp to Ramp Volume %				21%	24%											23%	33%			15%	16%										
On to ML Truck %				4%	2%											4%	2%			2%	2%										
ML to Off Truck %				15%	8%											8%	2%			4%	2%										
Balanced Weave Section?				Y	Y											Y	Y			N	N										
Service Volume				-	756											1,209	1,635			1,701	1,954										
V/C Ratio				-	0.40											0.64	0.86			0.90	1.03										
Level of Service				**-**	**A**											**C**	**D**			**E**	**F**										

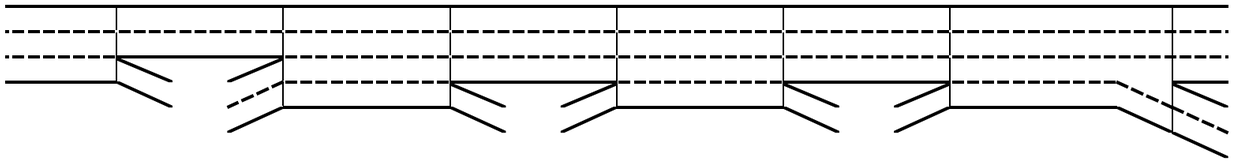
Fresno Downtown Plans
Existing Conditions
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Input Data

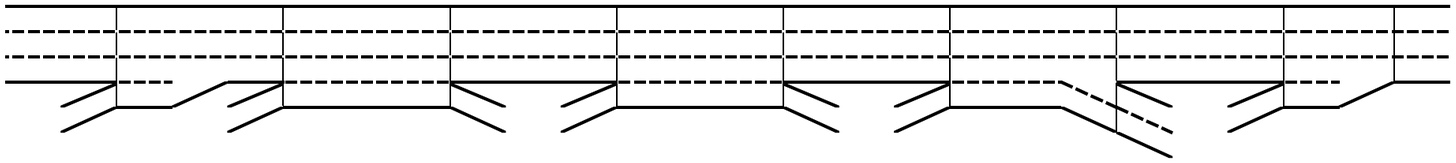
Number			151				152			153		154		155			156		157		158			159									
Type			Weave				Weave			Merge		Diverge		Diverge			Merge		Merge		Diverge			Weave									
Length			1,780		4,150		1,485		2,295	775		775		1,650		1,400	410		1,175		1,175		2,490	1,520									
Mainline Volume	AM		6,166		3,800		3,800		4,689	4,689		4,995		3,967		3,355	3,355		3,407		3,550		1,291	1,291									
	PM		5,415		2,928		2,928		3,459	3,459		3,843		3,501		3,281	3,281		3,549		3,596		979	979									
Ramp Volume	AM	523		2,889		2,998		2,109		306		1,028		612			52		143		2,259			550		707							
	PM	630		3,117		1,673		1,142		384		342		220			268		47		2,617			343		452							
Operations Analysis			**AM**	**PM**			**AM**	**PM**		**AM**	**PM**	**AM**	**PM**	**AM**	**PM**		**AM**	**PM**	**AM**	**PM**	**AM**	**PM**			**AM**	**PM**							
Basic Section (HCM 2010)																																	
Volume			6,689	6,045			6,798	4,601				4,995	3,843								3,550	3,596			1,841	1,322							
PHF			0.91	0.98			0.91	0.98				0.91	0.98								0.91	0.98			0.91	0.98							
Lanes			4	4			4	4				4	4								3	3			3	3							
Terrain			Level	Level			Level	Level				Level	Level								Level	Level			Level	Level							
Truck/Bus %			3%	2%			3%	2%				3%	2%								3%	2%			3%	2%							
RV %			0%	0%			0%	0%				0%	0%								0%	0%			0%	0%							
Population Factor			1.00	1.00			1.00	1.00				1.00	1.00								1.00	1.00			1.00	1.00							
Free Flow Speed			65	65			65	65				65	65								65	65			65	65							
Speed			63.3	64.9			62.9	65.0				65.0	65.0								65.0	65.0			65.0	65.0							
V/C Ratio			0.79	0.66			0.81	0.50				0.59	0.42								0.56	0.53			0.29	0.19							
Density			**29.5**	**24.0**			**30.1**	**18.2**				**21.4**	**15.2**								**20.3**	**19.0**			**10.5**	**7.0**							
Level of Service			**D**	**C**			**D**	**C**				**C**	**B**								**C**	**C**			**A**	**A**							
Ramp Junction (HCM 2010)																																	
Mainline Lanes										4	4	4	4	3	3		3	3	3	3	3	3			2	3							
Mainline Free Flow Speed										65	65	65	65	65	65		65	65	65	65	65	65			65	65							
Mainline Volume										4,689	3,459	4,995	3,843	3,967	3,501		3,355	3,281	3,407	3,549	3,550	3,596			979	1,322							
Mainline PHF										0.91	0.98	0.91	0.98	0.91	0.98		0.91	0.98	0.91	0.98	0.91	0.98			0.98	0.98							
Mainline Terrain										Level	Level	Level	Level	Level	Level		Level	Level	Level	Level	Level	Level			Level	Level							
Mainline Truck/Bus %										3%	2%	3%	2%	3%	2%		3%	2%	3%	2%	3%	2%			2%	2%							
Mainline RV %										0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%			0%	0%							
Mainline Population 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			1.00	1.00							
Ramp Type										Right	Right	Right	Right	Right	Right		Right	Right	Right	Right	Major	Major			Major	Right							
Ramp Lanes										1	1	1	1	1	1		1	1	1	1	2	2			2	1							
Ramp Free Flow Speed										45	45	45	45	45	45		45	45	25	25	50	50			55	45							
Ramp Volume										306	384	1,028	342	612	220		52	268	143	47	2,259	2,617			343	452							
Accel/Decel Length										350	350	140	140	140	140		350	350	700	700	1,175	1,175			1,520	140							
Ramp PHF										0.94	0.88	0.94	0.81	0.73	0.80		0.65	0.74	0.64	0.73	0.88	0.82			0.82	0.92							
Ramp Terrain										Level	Level	Level	Level	Level	Level		Level	Level	Level	Level	Level	Level			Level	Level							
Ramp Truck/Bus %										3%	2%	2%	4%	3%	2%		3%	2%	3%	2%	3%	2%			3%	3%							
Ramp RV %										0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%			0%	0%							
Ramp Population 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			1.00	1.00							
Speed										59.4	60.4	61.6	63.5	60.0	61.2		58.9	59.0	58.8	59.1	56.8	53.9			66.1	59.3							
V/C Ratio										0.59	0.43	0.69	0.45	0.69	0.56		0.54	0.53	0.57	0.53	0.73	0.78			0.21	0.25							
Density										**22.0**	**17.6**	**29.3**	**19.9**	**29.1**	**24.2**		**21.0**	**21.5**	**20.5**	**18.6**	**14.4**	**13.5**			**N/A**	**12.5**							
Level of Service										**C**	**B**	**D**	**B**	**D**	**C**		**C**	**C**	**C**	**B**	**B**	**B**			**-**	**B**							
Weave (Leisch Method)																																	
Entering Lanes			3	3			3	3																	2	2							
Ramp to Ramp Volume %			38%	42%			45%	41%																	44%	28%							
On to ML Truck %			3%	2%			2%	3%																	5%	3%							
ML to Off Truck %			3%	2%			3%	2%																	3%	3%							
Balanced Weave Section?			Y	Y			Y	Y																	Y	Y							
Service Volume			1,862	1,711			2,072	1,302																	623	-							
V/C Ratio			0.98	0.90			1.09	0.69																	0.33	-							
Level of Service			**E**	**E**			**F**	**C**																	**A**	**-**							

Fresno Downtown Plans
Existing Conditions
SR-180 Eastbound



				SR-99			Fulton St / Van Ness Ave			Abby St			SR-41	
Input Data														
Number		201			202			203			204			
Type		Diverge			Weave			Weave			Weave			
Length		1,500		4,070	1,380		2,580	1,655		1,245	1,600			
Mainline Volume	AM	2,865		1,472	1,472		4,365	4,365		4,442	4,442			
	PM	2,098		1,116	1,116		4,135	4,135		4,553	4,553			
Ramp Volume	AM	1,393		3,219		326	434		357	396		1,702		
	PM	982		3,317		298	708		290	782		1,677		
Operations Analysis		**AM**	**PM**		**AM**	**PM**		**AM**	**PM**		**AM**	**PM**		
Basic Section (HCM 2010)														
Volume					4,691	4,433		4,799	4,843		4,838	5,335		
PHF					0.84	0.93		0.81	0.95		0.78	0.97		
Lanes					4	4		4	4		4	4		
Terrain					Level	Level		Level	Level		Level	Level		
Truck/Bus %					3%	2%		3%	2%		3%	2%		
RV %					0%	0%		0%	0%		0%	0%		
Population Factor					1.00	1.00		1.00	1.00		1.00	1.00		
Free Flow Speed					65	65		65	65		65	65		
Speed					65.0	65.0		65.0	65.0		64.9	65.0		
V/C Ratio					0.60	0.51		0.64	0.55		0.67	0.59		
Density					**21.8**	**18.5**		**23.1**	**19.8**		**24.2**	**21.4**		
Level of Service					**C**	**C**		**C**	**C**		**C**	**C**		
Ramp Junction (HCM 2010)														
Mainline Lanes		3	3											
Mainline Free Flow Speed		65	65											
Mainline Volume		2,865	2,098											
Mainline PHF		0.95	0.95											
Mainline Terrain		Level	Level											
Mainline Truck/Bus %		3%	2%											
Mainline RV %		0%	0%											
Mainline Population Factor		1.00	1.00											
Ramp Type		Right	Right											
Ramp Lanes		1	1											
Ramp Free Flow Speed		50	50											
Ramp Volume		1,393	982											
Accel/Decel Length		1,500	1,500											
Ramp PHF		0.84	0.92											
Ramp Terrain		Level	Level											
Ramp Truck/Bus %		3%	2%											
Ramp RV %		0%	0%											
Ramp Population Factor		1.00	1.00											
Speed		58.3	59.5											
V/C Ratio		0.80	0.51											
Density		**12.4**	**6.5**											
Level of Service		**B**	**A**											
Weave (Leisch Method)														
Entering Lanes					2	2		3	3		3	3		
Ramp to Ramp Volume %					14%	11%		1%	2%		48%	38%		
On to ML Truck %					2%	2%		3%	2%		3%	2%		
ML to Off Truck %					3%	2%		3%	2%		6%	2%		
Balanced Weave Section?					N	N		N	N		Y	Y		
Service Volume					1,127	1,086		1,218	1,245		1,340	1,527		
V/C Ratio					0.59	0.57		0.64	0.66		0.71	0.80		
Level of Service					**C**	**C**		**C**	**C**		**C**	**D**		

Fresno Downtown Plans
Existing Conditions
SR-180 Westbound



		SR-41				Blackstone Ave				Fulton St				SR-99			
Input Data																	
Number			251			252				253				254			255
Type			Merge			Weave				Weave				Weave			Merge
Length			705			2,840		1,240		1,730		1,370		2,860		4,160	1,500
Mainline Volume	AM		3,405			3,650		4,023		4,023		3,366		3,366		727	727
	PM		2,800			3,083		3,756		3,756		3,586		3,586		1,041	1,041
Ramp Volume	AM		245		1,332		959		183		840		156		2,795		759
	PM		283		1,149		476		284		454		155		2,700		659
Operations Analysis			**AM**	**PM**		**AM**	**PM**			**AM**	**PM**			**AM**	**PM**		**AM**	**PM**
Basic Section (HCM 2010)																	
Volume						4,982	4,232			4,206	4,040			3,522	3,741		
PHF						0.86	0.96			0.88	0.95			0.90	0.94		
Lanes						4	4			4	4			4	4		
Terrain						Level	Level			Level	Level			Level	Level		
Truck/Bus %						2%	4%			2%	4%			2%	4%		
RV %						0%	0%			0%	0%			0%	0%		
Population Factor						1.00	1.00			1.00	1.00			1.00	1.00		
Free Flow Speed						65	65			65	65			65	65		
Speed						65.0	65.0			65.0	65.0			65.0	65.0		
V/C Ratio						0.62	0.48			0.51	0.46			0.42	0.43		
Density						**22.5**	**17.3**			**18.6**	**16.7**			**15.2**	**15.6**		
Level of Service						**C**	**B**			**C**	**B**			**B**	**B**		
Ramp Junction (HCM 2010)																	
Mainline Lanes			3	3													3 3
Mainline Free Flow Speed			65	65													65 65
Mainline Volume			3,405	2,800													727 1,041
Mainline PHF			0.86	0.96													0.91 0.93
Mainline Terrain			Level	Level													Level Level
Mainline Truck/Bus %			2%	4%													2% 4%
Mainline RV %			0%	0%													0% 0%
Mainline Population Factor			1.00	1.00													1.00 1.00
Ramp Type			Right	Right													Right Right
Ramp Lanes			1	1													1 1
Ramp Free Flow Speed			50	50													50 50
Ramp Volume			245	283													759 659
Accel/Decel Length			350	350													450 450
Ramp PHF			0.68	0.79													0.88 0.89
Ramp Terrain			Level	Level													Level Level
Ramp Truck/Bus %			6%	2%													2% 2%
Ramp RV %			0%	0%													0% 0%
Ramp Population Factor			1.00	1.00													1.00 1.00
Speed			58.4	59.3													59.5 59.8
V/C Ratio			0.62	0.47													0.41 0.36
Density			**24.3**	**19.5**													**12.8** **13.4**
Level of Service			**C**	**B**													**B** **B**
Weave (Leisch Method)																	
Entering Lanes						3	3			3	3			3	3		
Ramp to Ramp Volume %						23%	14%			5%	4%			74%	75%		
On to ML Truck %						3%	3%			2%	4%			2%	4%		
ML to Off Truck %						2%	4%			2%	4%			5%	5%		
Balanced Weave Section?						N	N			N	N			Y	Y		
Service Volume						1,346	1,079			1,062	1,030			911	975		
V/C Ratio						0.71	0.57			0.56	0.54			0.48	0.51		
Level of Service						**C**	**B**			**B**	**B**			**B**	**B**		

APPENDIX C-3:
TECHNICAL CALCULATIONS –
EXISTING CONDITIONS
FREEWAY RAMP QUEUES



Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SWL2
Lane Group Flow (vph)	233	193	186	47	202	14	12
v/c Ratio	0.30	0.12	0.24	0.07	0.14	0.01	0.02
Control Delay	12.3	0.2	11.7	5.3	10.5	0.0	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.3	0.2	11.7	5.3	10.5	0.0	9.9
Queue Length 50th (ft)	50	0	39	2	21	0	2
Queue Length 95th (ft)	70	0	68	16	32	0	7
Internal Link Dist (ft)	530		1070		390		
Turn Bay Length (ft)						40	
Base Capacity (vph)	783	1583	783	686	1462	976	585
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	0.30	0.12	0.24	0.07	0.14	0.01	0.02

Intersection Summary



Lane Group	EBT	WBT	WBR	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	254	196	72	129	182	346	58
v/c Ratio	0.21	0.15	0.10	0.10	0.36	0.23	0.08
Control Delay	8.9	10.4	3.5	8.8	13.5	10.9	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.9	10.4	3.5	8.8	13.5	10.9	3.7
Queue Length 50th (ft)	21	20	0	11	39	36	0
Queue Length 95th (ft)	34	33	15	23	67	51	13
Internal Link Dist (ft)	1070	560		504		596	
Turn Bay Length (ft)			40		70		85
Base Capacity (vph)	1191	1272	697	1266	511	1479	695
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	0.21	0.15	0.10	0.10	0.36	0.23	0.08

Intersection Summary

Lane Group	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	259	253	344	849
v/c Ratio	0.20	0.37	0.28	0.54
Control Delay	14.2	10.2	11.7	15.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	14.2	10.2	11.7	15.7
Queue Length 50th (ft)	36	41	34	133
Queue Length 95th (ft)	49	67	49	130
Internal Link Dist (ft)	277		340	540
Turn Bay Length (ft)		100		
Base Capacity (vph)	1300	689	1212	1568
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.37	0.28	0.54

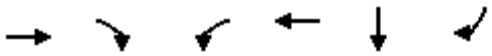
Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	35	235	224	35	162	560	48
v/c Ratio	0.11	0.24	0.23	0.08	0.17	0.55	0.06
Control Delay	12.0	12.0	19.9	6.4	8.2	12.5	3.3
Queue Delay	0.0	0.0	0.0	0.0	2.1	54.4	0.0
Total Delay	12.0	12.0	19.9	6.4	10.4	66.9	3.3
Queue Length 50th (ft)	6	18	38	0	31	141	1
Queue Length 95th (ft)	m13	28	60	15	52	192	12
Internal Link Dist (ft)		340	361			110	
Turn Bay Length (ft)	100			50			50
Base Capacity (vph)	322	964	964	460	981	1022	870
Starvation Cap Reductn	0	0	0	0	688	537	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	0.11	0.24	0.23	0.08	0.55	1.15	0.06

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	393	777	6	86	752	134
v/c Ratio	0.69	0.49	0.04	0.14	0.40	0.15
Control Delay	27.6	1.1	16.4	8.0	12.2	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.6	1.1	16.4	8.0	12.2	3.5
Queue Length 50th (ft)	147	0	2	29	85	0
Queue Length 95th (ft)	180	0	m4	39	175	27
Internal Link Dist (ft)	322			290	610	
Turn Bay Length (ft)		110	200			
Base Capacity (vph)	720	1583	265	1096	1901	912
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	0.55	0.49	0.02	0.08	0.40	0.15

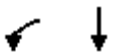
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	NBT
Lane Group Flow (vph)	464	833
v/c Ratio	0.72	0.33
Control Delay	13.7	11.6
Queue Delay	0.3	0.0
Total Delay	14.0	11.6
Queue Length 50th (ft)	207	73
Queue Length 95th (ft)	18	96
Internal Link Dist (ft)	290	625
Turn Bay Length (ft)		
Base Capacity (vph)	809	2553
Starvation Cap Reductn	68	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.63	0.33

Intersection Summary



Lane Group	WBL	SBT
Lane Group Flow (vph)	220	1533
v/c Ratio	0.57	0.46
Control Delay	30.8	7.2
Queue Delay	0.0	0.0
Total Delay	30.8	7.2
Queue Length 50th (ft)	84	103
Queue Length 95th (ft)	88	152
Internal Link Dist (ft)	265	624
Turn Bay Length (ft)		
Base Capacity (vph)	921	3318
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.24	0.46

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	9	215	183	310	440	268
v/c Ratio	0.04	0.51	0.44	0.52	0.13	0.24
Control Delay	20.0	27.8	26.1	6.1	5.8	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.6
Total Delay	20.0	27.8	26.1	6.1	5.8	2.3
Queue Length 50th (ft)	3	81	68	0	21	0
Queue Length 95th (ft)	11	118	88	14	53	31
Internal Link Dist (ft)		265	346		185	
Turn Bay Length (ft)	175			150		
Base Capacity (vph)	570	1013	1013	1002	3276	1115
Starvation Cap Reductn	0	0	0	0	0	512
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.21	0.18	0.31	0.13	0.44

Intersection Summary

Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	367	116	234	1520
v/c Ratio	0.45	0.50	0.17	0.64
Control Delay	22.2	48.0	11.5	18.7
Queue Delay	0.0	0.0	0.0	1.8
Total Delay	22.2	48.0	11.5	20.5
Queue Length 50th (ft)	66	56	20	174
Queue Length 95th (ft)	88	89	15	#272
Internal Link Dist (ft)	400		250	176
Turn Bay Length (ft)		100		
Base Capacity (vph)	1037	379	2032	2364
Starvation Cap Reductn	0	0	0	634
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.35	0.31	0.12	0.88

Intersection Summary

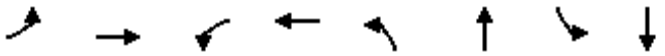
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	141	351	302	123	493	27
v/c Ratio	0.45	0.18	0.24	0.19	0.35	0.05
Control Delay	37.8	6.0	16.5	4.2	20.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	6.0	16.5	4.2	20.9	0.2
Queue Length 50th (ft)	67	31	47	0	61	0
Queue Length 95th (ft)	m114	45	66	24	88	1
Internal Link Dist (ft)		250	510		555	
Turn Bay Length (ft)	75			125		150
Base Capacity (vph)	316	1985	1263	644	1426	500
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	0.45	0.18	0.24	0.19	0.35	0.05

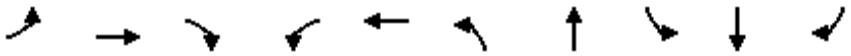
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	65	282	115	396	43	286	94	572
v/c Ratio	0.25	0.38	0.38	0.41	0.17	0.34	0.33	0.53
Control Delay	30.2	22.8	29.7	20.6	30.6	20.4	29.9	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.2	22.8	29.7	20.6	30.6	20.4	29.9	19.6
Queue Length 50th (ft)	20	41	34	58	13	40	28	84
Queue Length 95th (ft)	67	94	100	123	42	73	73	135
Internal Link Dist (ft)		430		410		410		430
Turn Bay Length (ft)	200		190		100		100	
Base Capacity (vph)	610	2115	610	2121	610	2121	610	2112
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.13	0.19	0.19	0.07	0.13	0.15	0.27

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	73	261	89	100	408	144	469	101	497	94
v/c Ratio	0.35	0.31	0.20	0.42	0.46	0.51	0.44	0.42	0.49	0.18
Control Delay	39.0	26.6	5.4	38.7	24.2	38.8	23.0	38.7	25.5	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	39.0	26.6	5.4	38.7	24.2	38.8	23.0	38.7	25.5	5.5
Queue Length 50th (ft)	30	51	0	41	73	59	84	41	95	0
Queue Length 95th (ft)	78	94	21	108	142	126	150	93	163	20
Internal Link Dist (ft)		420			420		420		420	
Turn Bay Length (ft)	200		100	200		200		200		75
Base Capacity (vph)	490	1654	797	490	1617	490	1436	490	1423	701
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	0.15	0.16	0.11	0.20	0.25	0.29	0.33	0.21	0.35	0.13

Intersection Summary

Lane Group	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	351	687	56	895
v/c Ratio	0.65	0.43	0.11	0.43
Control Delay	27.3	0.9	16.8	4.1
Queue Delay	0.0	0.0	0.0	0.1
Total Delay	27.3	0.9	16.8	4.2
Queue Length 50th (ft)	132	0	18	41
Queue Length 95th (ft)	164	0	30	62
Internal Link Dist (ft)	365		338	190
Turn Bay Length (ft)		250		
Base Capacity (vph)	785	1583	762	2090
Starvation Cap Reductn	0	0	0	255
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.45	0.43	0.07	0.49

Intersection Summary



Lane Group	EBL	NBT
Lane Group Flow (vph)	331	453
v/c Ratio	0.64	0.23
Control Delay	25.4	8.1
Queue Delay	0.0	0.0
Total Delay	25.4	8.1
Queue Length 50th (ft)	108	40
Queue Length 95th (ft)	172	76
Internal Link Dist (ft)	338	310
Turn Bay Length (ft)		
Base Capacity (vph)	784	1983
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.42	0.23

Intersection Summary



Lane Group	EBT	EBR	SBL	SBT
Lane Group Flow (vph)	212	142	429	1091
v/c Ratio	0.24	0.35	0.34	0.49
Control Delay	20.0	17.7	1.2	7.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	20.0	17.7	1.2	7.1
Queue Length 50th (ft)	41	44	0	42
Queue Length 95th (ft)	40	54	30	255
Internal Link Dist (ft)	431			470
Turn Bay Length (ft)		25	150	
Base Capacity (vph)	2022	915	1252	2216
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.10	0.16	0.34	0.49

Intersection Summary



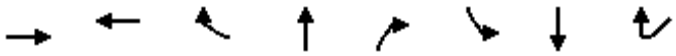
Lane Group	EBL	EBT	NBT	NBR
Lane Group Flow (vph)	222	382	212	108
v/c Ratio	0.33	0.69	0.10	0.11
Control Delay	4.2	34.3	9.0	2.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	4.2	34.3	9.0	2.6
Queue Length 50th (ft)	0	192	24	0
Queue Length 95th (ft)	41	245	48	23
Internal Link Dist (ft)		395	720	
Turn Bay Length (ft)				125
Base Capacity (vph)	910	828	2131	996
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.24	0.46	0.10	0.11

Intersection Summary



Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	1069	172	89	376
v/c Ratio	0.62	0.10	0.11	0.35
Control Delay	12.1	7.5	2.4	16.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.1	7.5	2.4	16.5
Queue Length 50th (ft)	131	15	0	52
Queue Length 95th (ft)	113	27	17	67
Internal Link Dist (ft)	550	438		520
Turn Bay Length (ft)			125	
Base Capacity (vph)	1731	1754	820	1086
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.62	0.10	0.11	0.35

Intersection Summary



Lane Group	EBT	WBT	WBR	NBT	NBR2	SBL	SBT	SWR2
Lane Group Flow (vph)	100	142	181	76	10	625	546	4
v/c Ratio	0.24	0.34	0.14	0.20	0.04	0.66	0.55	0.01
Control Delay	28.8	33.1	2.8	39.0	0.2	24.8	21.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.8	33.1	2.8	39.0	0.2	24.8	21.9	0.0
Queue Length 50th (ft)	47	75	10	23	0	243	194	0
Queue Length 95th (ft)	76	100	43	40	0	#472	#368	0
Internal Link Dist (ft)	310	1100		571			552	
Turn Bay Length (ft)					75			
Base Capacity (vph)	542	544	1301	673	398	941	990	798
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.26	0.14	0.11	0.03	0.66	0.55	0.01

Intersection Summary

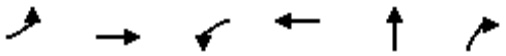
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	700	9	154	12	21	247	561	161
v/c Ratio	0.88	0.07	0.19	0.06	0.03	0.34	0.73	0.21
Control Delay	30.1	11.5	11.1	11.4	4.1	13.2	21.3	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	11.5	11.1	11.4	4.1	13.2	21.3	3.1
Queue Length 50th (ft)	210	2	32	2	0	56	156	0
Queue Length 95th (ft)	224	9	60	10	7	103	#268	28
Internal Link Dist (ft)	1100		365				400	
Turn Bay Length (ft)		75			60	60		
Base Capacity (vph)	800	128	803	191	671	732	770	749
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.07	0.19	0.06	0.03	0.34	0.73	0.21

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR
Lane Group Flow (vph)	58	827	7	196	164	16
v/c Ratio	0.07	0.68	0.02	0.16	0.59	0.06
Control Delay	3.9	9.5	8.5	6.8	34.1	0.6
Queue Delay	0.0	1.1	0.0	0.0	0.0	0.0
Total Delay	3.9	10.5	8.5	6.8	34.1	0.6
Queue Length 50th (ft)	6	140	1	26	56	0
Queue Length 95th (ft)	12	139	m7	65	#121	2
Internal Link Dist (ft)		365		1209	411	
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	783	1214	315	1202	276	284
Starvation Cap Reductn	0	177	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	0.07	0.80	0.02	0.16	0.59	0.06

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	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	467	151	84	929	144
v/c Ratio	0.55	0.18	0.12	0.68	0.21
Control Delay	14.7	10.3	12.4	18.2	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	14.7	10.3	12.4	18.2	3.5
Queue Length 50th (ft)	112	30	19	140	0
Queue Length 95th (ft)	170	57	36	158	19
Internal Link Dist (ft)	330	230		550	
Turn Bay Length (ft)					100
Base Capacity (vph)	842	846	685	1370	701
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	0.55	0.18	0.12	0.68	0.21

Intersection Summary



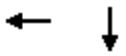
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	127	372	95	124	66	170	282
v/c Ratio	0.16	0.32	0.15	0.11	0.06	0.49	0.41
Control Delay	5.2	5.4	5.3	4.7	1.5	26.9	22.6
Queue Delay	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Total Delay	5.2	6.0	5.3	4.7	1.5	26.9	22.6
Queue Length 50th (ft)	16	46	12	15	0	55	46
Queue Length 95th (ft)	32	74	22	25	7	101	73
Internal Link Dist (ft)		230		440			405
Turn Bay Length (ft)	110		100		100	125	
Base Capacity (vph)	794	1179	624	1173	1021	348	696
Starvation Cap Reductn	0	478	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	0.16	0.53	0.15	0.11	0.06	0.49	0.41

Intersection Summary



Lane Group	WBL	WBT	SBL	SBR	SER	NWT
Lane Group Flow (vph)	149	157	229	796	20	112
v/c Ratio	0.33	0.33	0.26	0.54	0.03	0.31
Control Delay	20.3	20.1	13.1	12.5	0.1	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.3	20.1	13.1	12.5	0.1	22.9
Queue Length 50th (ft)	39	42	45	82	0	31
Queue Length 95th (ft)	59	61	85	122	0	51
Internal Link Dist (ft)		349	215			183
Turn Bay Length (ft)						
Base Capacity (vph)	530	557	905	1501	758	517
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	0.28	0.28	0.25	0.53	0.03	0.22

Intersection Summary



Lane Group	WBT	SBT
Lane Group Flow (vph)	561	213
v/c Ratio	0.30	0.33
Control Delay	5.9	15.5
Queue Delay	0.0	0.0
Total Delay	5.9	15.5
Queue Length 50th (ft)	35	52
Queue Length 95th (ft)	60	71
Internal Link Dist (ft)	724	409
Turn Bay Length (ft)		
Base Capacity (vph)	1876	644
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.30	0.33

Intersection Summary



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	340	9	81	256	159
v/c Ratio	0.26	0.01	0.14	0.29	0.18
Control Delay	13.2	2.9	9.3	10.3	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.2	2.9	9.3	10.3	9.1
Queue Length 50th (ft)	42	0	15	50	29
Queue Length 95th (ft)	60	4	35	91	54
Internal Link Dist (ft)	724			395	398
Turn Bay Length (ft)		100	100		
Base Capacity (vph)	1314	610	585	893	891
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	0.26	0.01	0.14	0.29	0.18

Intersection Summary



Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	366	3	73	184
v/c Ratio	0.38	0.01	0.07	0.18
Control Delay	12.3	1.0	6.0	5.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.3	1.0	6.0	5.4
Queue Length 50th (ft)	61	0	12	21
Queue Length 95th (ft)	98	m0	16	43
Internal Link Dist (ft)	314		377	420
Turn Bay Length (ft)		75		
Base Capacity (vph)	975	472	987	1003
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.38	0.01	0.07	0.18

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	270	85	326	287
v/c Ratio	0.20	0.16	0.19	0.16
Control Delay	16.5	5.4	7.7	3.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	16.5	5.4	7.7	3.8
Queue Length 50th (ft)	26	0	29	11
Queue Length 95th (ft)	43	26	45	24
Internal Link Dist (ft)	328		377	547
Turn Bay Length (ft)		100		
Base Capacity (vph)	1382	519	1740	1801
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.16	0.19	0.16

Intersection Summary

Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	979	196	168
v/c Ratio	0.34	0.13	0.13
Control Delay	8.7	7.7	11.0
Queue Delay	0.0	0.0	0.0
Total Delay	8.7	7.7	11.0
Queue Length 50th (ft)	63	13	17
Queue Length 95th (ft)	95	28	28
Internal Link Dist (ft)	189	898	377
Turn Bay Length (ft)			
Base Capacity (vph)	2886	1801	1611
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.34	0.11	0.10

Intersection Summary



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	54	514	53	17	11	135	121
v/c Ratio	0.05	0.23	0.05	0.06	0.03	0.51	0.34
Control Delay	10.5	9.4	1.1	20.8	0.2	31.7	26.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.5	9.4	1.1	20.8	0.2	31.7	26.1
Queue Length 50th (ft)	6	32	0	5	0	47	41
Queue Length 95th (ft)	35	115	6	15	0	91	77
Internal Link Dist (ft)		339		246			377
Turn Bay Length (ft)	100		150		100	75	
Base Capacity (vph)	1095	2190	1019	428	444	319	428
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	0.05	0.23	0.05	0.04	0.02	0.42	0.28

Intersection Summary

Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	668	348	21	224
v/c Ratio	0.50	0.40	0.05	0.26
Control Delay	14.1	11.2	8.8	10.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	14.1	11.2	8.8	10.2
Queue Length 50th (ft)	82	69	4	43
Queue Length 95th (ft)	115	124	13	78
Internal Link Dist (ft)	326	401		395
Turn Bay Length (ft)			100	
Base Capacity (vph)	1563	1144	567	1159
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.43	0.30	0.04	0.19

Intersection Summary



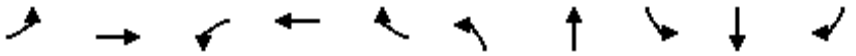
Lane Group	EBT	EBR	SBL	SBT
Lane Group Flow (vph)	391	82	55	312
v/c Ratio	0.21	0.09	0.08	0.26
Control Delay	8.4	2.5	11.5	21.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	8.4	2.5	11.5	21.8
Queue Length 50th (ft)	37	0	0	55
Queue Length 95th (ft)	56	15	28	80
Internal Link Dist (ft)	720			384
Turn Bay Length (ft)		50	50	
Base Capacity (vph)	1834	868	661	1215
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.21	0.09	0.08	0.26

Intersection Summary



Lane Group	EBL	EBT	WBR	NBT
Lane Group Flow (vph)	143	147	36	247
v/c Ratio	0.18	0.19	0.04	0.17
Control Delay	2.9	7.4	0.1	9.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	2.9	7.4	0.1	9.5
Queue Length 50th (ft)	0	18	0	23
Queue Length 95th (ft)	27	49	0	41
Internal Link Dist (ft)		314		897
Turn Bay Length (ft)				
Base Capacity (vph)	787	775	1025	1489
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.18	0.19	0.04	0.17

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	85	290	10	415	37	24	36	46	42	48
v/c Ratio	0.15	0.11	0.08	0.31	0.06	0.12	0.14	0.25	0.17	0.17
Control Delay	22.7	4.7	34.8	14.2	2.4	27.1	18.4	30.3	27.8	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	4.7	34.8	14.2	2.4	27.1	18.4	30.3	27.8	4.1
Queue Length 50th (ft)	28	13	0	73	1	10	9	20	18	0
Queue Length 95th (ft)	74	57	m20	59	7	20	21	37	34	9
Internal Link Dist (ft)		288		346			331		246	
Turn Bay Length (ft)	120		120		55	115		125		125
Base Capacity (vph)	575	2608	330	1360	606	361	456	336	466	456
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	0.15	0.11	0.03	0.31	0.06	0.07	0.08	0.14	0.09	0.11

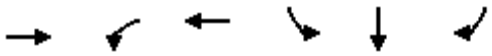
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	15	569	107	583	48	76	66	25	12
v/c Ratio	0.12	0.31	0.51	0.27	0.31	0.30	0.39	0.10	0.04
Control Delay	37.2	15.4	39.6	9.9	37.3	17.2	38.2	27.2	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.2	15.4	39.6	9.9	37.3	17.2	38.2	27.2	0.2
Queue Length 50th (ft)	6	90	48	51	22	13	30	11	0
Queue Length 95th (ft)	19	146	87	157	48	38	59	24	0
Internal Link Dist (ft)		346		168		395		179	
Turn Bay Length (ft)	100		125		100				
Base Capacity (vph)	321	1853	321	2197	554	336	554	334	392
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	0.05	0.31	0.33	0.27	0.09	0.23	0.12	0.07	0.03

Intersection Summary



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	647	43	355	614	155	383
v/c Ratio	0.67	0.30	0.29	0.67	0.16	0.38
Control Delay	33.2	45.7	20.7	20.4	12.2	2.6
Queue Delay	12.1	0.0	0.0	0.0	0.0	0.0
Total Delay	45.3	45.7	20.7	20.4	12.2	2.6
Queue Length 50th (ft)	181	25	75	253	46	0
Queue Length 95th (ft)	197	56	104	300	69	18
Internal Link Dist (ft)	168		218		367	
Turn Bay Length (ft)						
Base Capacity (vph)	970	621	2318	993	1045	1056
Starvation Cap Reductn	303	0	602	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	0.97	0.07	0.21	0.62	0.15	0.36

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	187	741	277	130	271	423
v/c Ratio	0.61	0.33	0.20	0.18	0.35	0.82
Control Delay	37.6	7.3	16.7	4.5	25.4	26.8
Queue Delay	0.0	0.6	0.0	0.0	0.0	0.0
Total Delay	37.6	8.0	16.7	4.5	25.4	26.8
Queue Length 50th (ft)	82	82	46	0	54	88
Queue Length 95th (ft)	140	116	78	34	85	#206
Internal Link Dist (ft)		218	178		514	
Turn Bay Length (ft)						
Base Capacity (vph)	372	2237	1398	726	914	575
Starvation Cap Reductn	0	1036	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	0.50	0.62	0.20	0.18	0.30	0.74

Intersection Summary

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



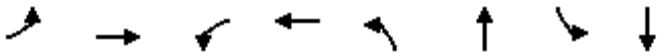
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	202	1029	10	352	93	163
v/c Ratio	0.34	0.50	0.04	0.18	0.11	0.18
Control Delay	11.2	9.8	9.2	7.2	10.8	6.9
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	11.2	9.8	9.2	7.2	10.8	6.9
Queue Length 50th (ft)	22	65	1	16	6	6
Queue Length 95th (ft)	118	246	11	70	22	23
Internal Link Dist (ft)		178		725	889	898
Turn Bay Length (ft)	100		75			
Base Capacity (vph)	800	2767	360	2607	2370	2331
Starvation Cap Reductn	15	361	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	0.26	0.43	0.03	0.14	0.04	0.07

Intersection Summary



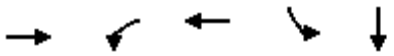
Lane Group	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	1085	288	24	183	44	189
v/c Ratio	0.75	0.20	0.04	0.13	0.08	0.12
Control Delay	23.1	14.8	3.7	11.6	12.7	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	14.8	3.7	11.6	12.7	8.5
Queue Length 50th (ft)	221	44	0	23	11	17
Queue Length 95th (ft)	237	69	10	34	24	27
Internal Link Dist (ft)	725	334		888		412
Turn Bay Length (ft)			200		100	
Base Capacity (vph)	1440	1457	673	1646	620	1792
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	0.75	0.20	0.04	0.11	0.07	0.11

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	127	519	79	328	116	514	82	249
v/c Ratio	0.60	0.57	0.48	0.43	0.58	0.33	0.50	0.34
Control Delay	58.4	37.5	57.5	36.1	58.4	16.4	57.7	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.4	37.5	57.5	36.1	58.4	16.4	57.7	25.6
Queue Length 50th (ft)	88	167	55	97	81	86	57	114
Queue Length 95th (ft)	144	220	89	122	126	137	96	194
Internal Link Dist (ft)		320		729		891		406
Turn Bay Length (ft)	150		125		150		150	
Base Capacity (vph)	316	962	316	928	316	1536	252	722
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.54	0.25	0.35	0.37	0.33	0.33	0.34

Intersection Summary



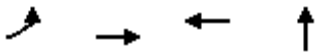
Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	718	120	417	49	360
v/c Ratio	0.52	0.47	0.31	0.09	0.32
Control Delay	8.6	17.2	9.3	10.8	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.6	17.2	9.3	10.8	10.4
Queue Length 50th (ft)	30	13	22	6	22
Queue Length 95th (ft)	95	79	86	27	62
Internal Link Dist (ft)	729		707		908
Turn Bay Length (ft)		100		75	
Base Capacity (vph)	2862	563	3011	1320	2592
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	0.25	0.21	0.14	0.04	0.14

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	29	369	102	515	47	97	54	108	14
v/c Ratio	0.07	0.17	0.16	0.23	0.11	0.15	0.13	0.18	0.03
Control Delay	10.0	6.3	9.8	7.5	9.4	6.8	9.6	9.5	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	6.3	9.8	7.5	9.4	6.8	9.6	9.5	1.6
Queue Length 50th (ft)	3	14	10	26	6	7	7	13	0
Queue Length 95th (ft)	22	63	58	102	24	32	22	36	2
Internal Link Dist (ft)		707		320		887		416	
Turn Bay Length (ft)	100		100		100		100		75
Base Capacity (vph)	605	3028	868	3098	1143	1574	1100	1527	1302
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	0.05	0.12	0.12	0.17	0.04	0.06	0.05	0.07	0.01

Intersection Summary



Lane Group	EBL	EBT	WBT	NBT
Lane Group Flow (vph)	37	294	734	286
v/c Ratio	0.13	0.19	0.48	0.28
Control Delay	10.1	8.3	9.7	9.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.1	8.3	9.7	9.8
Queue Length 50th (ft)	4	15	41	18
Queue Length 95th (ft)	26	60	141	39
Internal Link Dist (ft)		320	512	890
Turn Bay Length (ft)	100			
Base Capacity (vph)	538	2892	2808	2339
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.07	0.10	0.26	0.12

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	14	127	318	325	422	35	162	221	266	297	19
v/c Ratio	0.06	0.48	0.66	0.66	0.56	0.28	0.36	0.26	0.72	0.27	0.03
Control Delay	38.9	45.3	40.5	40.3	6.6	54.4	44.5	3.6	49.3	28.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.9	45.3	40.5	40.3	6.6	54.4	44.5	3.6	49.3	28.4	0.1
Queue Length 50th (ft)	8	71	168	172	0	20	47	0	151	76	0
Queue Length 95th (ft)	18	90	#357	364	69	62	100	46	284	136	0
Internal Link Dist (ft)		390		1100			533			550	
Turn Bay Length (ft)	75		225			125		325	250		100
Base Capacity (vph)	344	360	555	567	806	271	1165	926	582	1786	855
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.35	0.57	0.57	0.52	0.13	0.14	0.24	0.46	0.17	0.02

Intersection Summary

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



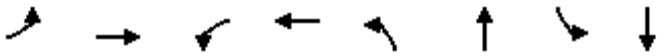
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	15	113	18	118	187	159
v/c Ratio	0.04	0.18	0.04	0.19	0.11	0.09
Control Delay	13.5	13.3	13.5	12.3	5.5	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.5	13.3	13.5	12.3	5.5	6.7
Queue Length 50th (ft)	3	24	4	23	11	12
Queue Length 95th (ft)	13	51	16	54	22	20
Internal Link Dist (ft)		719		260	398	888
Turn Bay Length (ft)	50		50			
Base Capacity (vph)	420	613	421	614	1714	1683
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	0.04	0.18	0.04	0.19	0.11	0.09

Intersection Summary



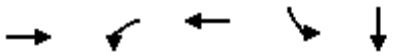
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	38	135	46	220	17	182	270	262	23
v/c Ratio	0.08	0.09	0.08	0.15	0.04	0.24	0.56	0.35	0.04
Control Delay	9.7	8.4	9.8	6.0	10.7	11.0	18.4	13.3	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.7	8.4	9.8	6.0	10.7	11.0	18.4	13.3	5.1
Queue Length 50th (ft)	7	11	9	12	3	35	67	59	0
Queue Length 95th (ft)	19	22	22	26	13	67	99	83	8
Internal Link Dist (ft)		260		1118		877		424	
Turn Bay Length (ft)	85		100		75		100		
Base Capacity (vph)	504	1542	547	1514	426	749	485	755	655
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	0.08	0.09	0.08	0.15	0.04	0.24	0.56	0.35	0.04

Intersection Summary



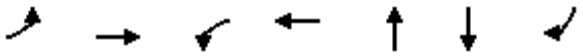
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	96	319	50	433	55	485	89	166
v/c Ratio	0.46	0.25	0.30	0.36	0.33	0.48	0.44	0.28
Control Delay	39.9	19.1	38.9	12.6	39.2	24.6	39.8	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.9	19.1	38.9	12.6	39.2	24.6	39.8	19.6
Queue Length 50th (ft)	42	54	22	40	24	96	39	51
Queue Length 95th (ft)	77	84	49	64	63	161	90	111
Internal Link Dist (ft)		1118		739		884		891
Turn Bay Length (ft)	150		140		100		100	
Base Capacity (vph)	408	1314	408	1277	408	1508	408	778
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.24	0.12	0.34	0.13	0.32	0.22	0.21

Intersection Summary



Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	392	85	607	152	427
v/c Ratio	0.23	0.18	0.35	0.24	0.33
Control Delay	7.3	9.3	9.5	13.8	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.3	9.3	9.5	13.8	7.1
Queue Length 50th (ft)	29	14	58	34	24
Queue Length 95th (ft)	47	36	88	64	46
Internal Link Dist (ft)	739		700		887
Turn Bay Length (ft)		75		50	
Base Capacity (vph)	1692	466	1720	622	1289
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	0.23	0.18	0.35	0.24	0.33

Intersection Summary



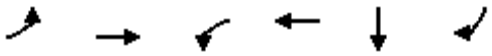
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	31	314	141	988	183	185	56
v/c Ratio	0.17	0.19	0.27	0.57	0.29	0.32	0.10
Control Delay	11.3	7.7	10.8	12.2	13.4	15.3	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.3	7.7	10.8	12.2	13.4	15.3	4.7
Queue Length 50th (ft)	6	26	28	120	40	46	0
Queue Length 95th (ft)	17	37	58	164	80	84	17
Internal Link Dist (ft)		700		324	1841	887	
Turn Bay Length (ft)	60		75				75
Base Capacity (vph)	186	1676	520	1737	638	581	555
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	0.17	0.19	0.27	0.57	0.29	0.32	0.10

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	49	304	1202	129	38	180	52
v/c Ratio	0.24	0.15	0.56	0.13	0.10	0.44	0.13
Control Delay	12.1	6.8	9.9	3.9	17.2	22.1	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.1	6.8	9.9	3.9	17.2	22.1	6.1
Queue Length 50th (ft)	6	17	98	5	11	54	0
Queue Length 95th (ft)	36	57	243	30	26	87	17
Internal Link Dist (ft)		324	505			1849	
Turn Bay Length (ft)	75			75			50
Base Capacity (vph)	212	2113	2175	1006	761	800	710
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	0.23	0.14	0.55	0.13	0.05	0.23	0.07

Intersection Summary



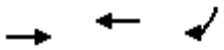
Lane Group	EBL	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	22	348	194	1507	148	51
v/c Ratio	0.13	0.14	0.28	0.62	0.46	0.16
Control Delay	8.8	5.0	7.4	9.2	34.1	12.7
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay	8.8	5.0	7.4	9.4	34.1	12.7
Queue Length 50th (ft)	3	20	26	148	61	4
Queue Length 95th (ft)	20	69	101	409	109	24
Internal Link Dist (ft)		324		303	295	
Turn Bay Length (ft)	100		175			50
Base Capacity (vph)	228	3248	945	3251	876	776
Starvation Cap Reductn	0	0	0	680	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.11	0.21	0.59	0.17	0.07

Intersection Summary



Lane Group	EBT	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	575	419	429	989	900
v/c Ratio	0.34	0.25	0.59	0.65	0.91
Control Delay	28.7	27.6	31.2	32.0	24.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.7	27.6	31.2	32.0	24.1
Queue Length 50th (ft)	130	90	379	453	261
Queue Length 95th (ft)	321	188	187	195	398
Internal Link Dist (ft)	1100	380		1000	
Turn Bay Length (ft)			200		225
Base Capacity (vph)	1705	1708	1237	2600	1123
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	0.34	0.25	0.35	0.38	0.80

Intersection Summary



Lane Group	EBT	WBT	SBR
Lane Group Flow (vph)	354	804	1013
v/c Ratio	0.22	0.51	0.83
Control Delay	15.1	18.2	25.8
Queue Delay	0.0	0.0	0.1
Total Delay	15.1	18.2	25.8
Queue Length 50th (ft)	54	144	236
Queue Length 95th (ft)	97	191	289
Internal Link Dist (ft)	303	471	
Turn Bay Length (ft)			
Base Capacity (vph)	1576	1576	2787
Starvation Cap Reductn	0	0	396
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.22	0.51	0.42

Intersection Summary

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	262	118	543	259	206
v/c Ratio	0.27	0.08	0.54	0.24	0.20
Control Delay	15.5	0.1	31.5	8.3	1.6
Queue Delay	0.0	0.0	0.2	0.0	0.0
Total Delay	15.5	0.1	31.7	8.3	1.6
Queue Length 50th (ft)	36	0	160	53	0
Queue Length 95th (ft)	63	0	194	93	19
Internal Link Dist (ft)	471		185	347	
Turn Bay Length (ft)		100			100
Base Capacity (vph)	1405	1441	1494	1347	1254
Starvation Cap Reductn	0	0	367	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.19	0.08	0.48	0.19	0.16

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	112	635	95	101	819	456	322	32	270	410	239
v/c Ratio	0.39	0.57	0.17	0.36	0.74	0.72	0.33	0.06	0.60	0.52	0.45
Control Delay	47.7	29.7	8.2	47.8	34.1	44.6	28.9	0.3	45.9	35.3	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	29.7	8.2	47.8	34.1	44.6	28.9	0.3	45.9	35.3	7.1
Queue Length 50th (ft)	32	156	4	29	215	127	79	0	77	113	0
Queue Length 95th (ft)	70	270	44	64	364	209	125	0	104	130	13
Internal Link Dist (ft)		745			420		460			480	
Turn Bay Length (ft)	150		110	150		150		90	150		125
Base Capacity (vph)	762	1340	652	762	1325	762	1342	653	762	1335	746
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.47	0.15	0.13	0.62	0.60	0.24	0.05	0.35	0.31	0.32

Intersection Summary



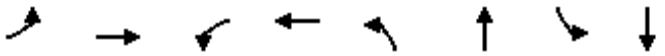
Lane Group	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	8	247	218	18	105	128
v/c Ratio	0.02	0.39	0.33	0.03	0.30	0.14
Control Delay	15.4	5.0	16.2	0.1	23.2	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	5.0	16.2	0.1	23.2	6.7
Queue Length 50th (ft)	2	0	52	0	27	17
Queue Length 95th (ft)	11	2	107	0	75	39
Internal Link Dist (ft)	725		891			877
Turn Bay Length (ft)				100	150	
Base Capacity (vph)	515	1207	1339	1155	888	1765
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	0.02	0.20	0.16	0.02	0.12	0.07

Intersection Summary



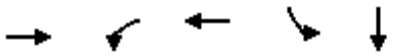
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	29	80	9	64	35	572	6	132	17
v/c Ratio	0.06	0.11	0.02	0.09	0.06	0.64	0.02	0.15	0.02
Control Delay	10.4	9.7	11.8	9.1	8.8	15.6	8.6	9.3	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	9.7	11.8	9.1	8.8	15.6	8.6	9.3	3.7
Queue Length 50th (ft)	5	12	2	9	6	141	1	25	0
Queue Length 95th (ft)	12	23	7	21	19	233	5	42	6
Internal Link Dist (ft)		314		327		884		884	
Turn Bay Length (ft)	50		100		100		25		50
Base Capacity (vph)	506	703	498	683	601	887	257	894	771
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	0.06	0.11	0.02	0.09	0.06	0.64	0.02	0.15	0.02

Intersection Summary



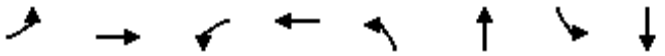
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	39	820	9	835	1	58	78	78
v/c Ratio	0.14	0.44	0.03	0.47	0.00	0.10	0.18	0.14
Control Delay	9.1	9.8	7.4	9.7	14.0	9.6	16.1	6.3
Queue Delay	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0
Total Delay	9.1	9.8	7.4	10.9	14.0	9.6	16.1	6.3
Queue Length 50th (ft)	7	87	1	86	0	7	20	3
Queue Length 95th (ft)	16	89	6	96	2	19	38	19
Internal Link Dist (ft)		522		182		395		398
Turn Bay Length (ft)	75		90		100		150	
Base Capacity (vph)	277	1869	292	1783	401	574	437	568
Starvation Cap Reductn	0	0	0	669	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.44	0.03	0.75	0.00	0.10	0.18	0.14

Intersection Summary



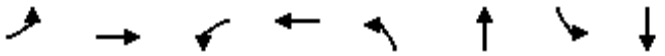
Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	890	56	390	354	396
v/c Ratio	0.66	0.26	0.23	0.59	0.48
Control Delay	21.1	31.6	9.9	21.2	3.6
Queue Delay	1.8	0.0	0.0	0.0	0.0
Total Delay	22.9	31.6	9.9	21.2	3.6
Queue Length 50th (ft)	149	20	38	108	0
Queue Length 95th (ft)	210	52	71	187	26
Internal Link Dist (ft)	182		196		582
Turn Bay Length (ft)		100			
Base Capacity (vph)	1350	980	3064	1233	1232
Starvation Cap Reductn	289	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.84	0.06	0.13	0.29	0.32

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	36	717	42	428	41	204	32	112
v/c Ratio	0.07	0.37	0.12	0.23	0.11	0.36	0.09	0.20
Control Delay	6.9	8.1	7.6	6.8	15.9	13.5	15.9	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	8.1	7.6	6.8	15.9	13.5	15.9	15.1
Queue Length 50th (ft)	5	66	6	34	11	40	8	27
Queue Length 95th (ft)	15	87	21	56	29	82	21	47
Internal Link Dist (ft)		717		601		405		398
Turn Bay Length (ft)	75		100		125		125	
Base Capacity (vph)	517	1946	354	1889	399	589	350	581
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.37	0.12	0.23	0.10	0.35	0.09	0.19

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	9	703	15	453	79	57	22	27
v/c Ratio	0.08	0.27	0.12	0.17	0.40	0.21	0.12	0.05
Control Delay	41.0	5.4	42.6	2.4	39.4	30.4	31.9	26.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.0	5.4	42.6	2.4	39.4	30.4	31.9	26.2
Queue Length 50th (ft)	5	45	7	1	42	26	11	5
Queue Length 95th (ft)	18	125	m22	82	62	44	25	13
Internal Link Dist (ft)		320		718		423		402
Turn Bay Length (ft)	100		150		100		100	
Base Capacity (vph)	196	2635	255	2696	403	541	393	1012
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.27	0.06	0.17	0.20	0.11	0.06	0.03

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	69	523	46	382	229	534	157	22	106
v/c Ratio	0.38	0.32	0.32	0.26	0.49	0.79	0.24	0.18	0.16
Control Delay	37.9	13.7	33.0	17.2	25.3	34.6	6.8	21.6	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	13.7	33.0	17.2	25.3	34.6	6.8	21.6	11.5
Queue Length 50th (ft)	37	106	26	92	97	261	15	8	23
Queue Length 95th (ft)	69	56	42	121	146	338	48	21	43
Internal Link Dist (ft)		718		725		385			884
Turn Bay Length (ft)	140		150		90		50	100	
Base Capacity (vph)	196	1628	196	1464	538	782	730	139	760
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	0.35	0.32	0.23	0.26	0.43	0.68	0.22	0.16	0.14

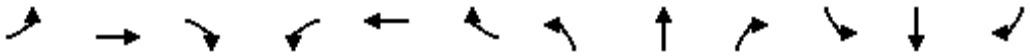
Intersection Summary



Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	469	29	488	261	23
v/c Ratio	0.21	0.05	0.22	0.30	0.06
Control Delay	6.3	4.6	5.0	28.9	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.3	4.6	5.0	28.9	9.6
Queue Length 50th (ft)	89	4	32	63	0
Queue Length 95th (ft)	11	m9	m39	91	15
Internal Link Dist (ft)	725		706	1849	
Turn Bay Length (ft)		225			75
Base Capacity (vph)	2250	576	2264	1123	524
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	0.21	0.05	0.22	0.23	0.04

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

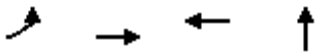


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	104	413	2	10	415	43	81	422	7	37	18	25
v/c Ratio	0.61	0.19	0.00	0.08	0.22	0.05	0.25	0.99	0.01	0.58	0.05	0.07
Control Delay	61.3	4.7	0.0	41.6	10.5	1.3	30.9	76.8	6.0	65.4	26.9	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.3	4.7	0.0	41.6	10.5	1.3	30.9	76.8	6.0	65.4	26.9	0.9
Queue Length 50th (ft)	63	22	0	6	56	0	42	256	0	18	8	0
Queue Length 95th (ft)	105	36	m0	m19	68	4	81	#425	m1	35	18	0
Internal Link Dist (ft)		706			318			380			1841	
Turn Bay Length (ft)	200		75	100		150	175			75		50
Base Capacity (vph)	196	2192	1004	196	1930	892	319	427	642	82	451	431
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	0.53	0.19	0.00	0.05	0.22	0.05	0.25	0.99	0.01	0.45	0.04	0.06

Intersection Summary

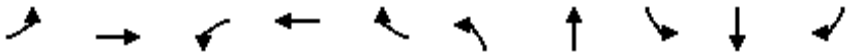
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



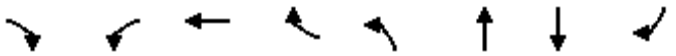
Lane Group	EBL	EBT	WBT	NBT
Lane Group Flow (vph)	49	417	551	383
v/c Ratio	0.08	0.15	0.21	0.63
Control Delay	1.8	1.4	2.9	22.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1.8	1.4	2.9	22.5
Queue Length 50th (ft)	1	2	23	56
Queue Length 95th (ft)	18	48	66	52
Internal Link Dist (ft)		318	536	268
Turn Bay Length (ft)	100			
Base Capacity (vph)	640	2725	2685	1135
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.08	0.15	0.21	0.34

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	73	322	15	480	189	8	196	165	130	81
v/c Ratio	0.34	0.13	0.12	0.24	0.42	0.04	0.29	0.74	0.37	0.20
Control Delay	40.3	6.8	41.8	12.5	8.2	25.8	30.0	52.4	32.7	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	6.8	41.8	12.5	8.2	25.8	30.0	52.4	32.7	2.9
Queue Length 50th (ft)	38	26	8	74	5	4	49	89	65	0
Queue Length 95th (ft)	80	75	25	112	39	12	57	120	89	6
Internal Link Dist (ft)		420		420			420		420	
Turn Bay Length (ft)	275		125		75	75		175		
Base Capacity (vph)	236	2411	196	1995	636	384	1153	382	608	600
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	0.31	0.13	0.08	0.24	0.30	0.02	0.17	0.43	0.21	0.14

Intersection Summary



Lane Group	EBR	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1	252	118	715	3	118	23	13
v/c Ratio	0.00	0.40	0.18	0.49	0.03	0.12	0.02	0.02
Control Delay	0.0	21.8	17.8	2.3	40.0	13.7	17.7	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	21.8	17.8	2.3	40.0	13.7	17.7	5.6
Queue Length 50th (ft)	0	106	45	0	2	31	8	0
Queue Length 95th (ft)	0	120	59	21	10	78	39	0
Internal Link Dist (ft)			974			434	380	
Turn Bay Length (ft)		250		250	125			125
Base Capacity (vph)	1309	885	931	1751	236	1009	966	855
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.28	0.13	0.41	0.01	0.12	0.02	0.02

Intersection Summary

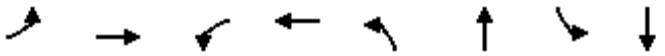


Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	248	9	19	125
v/c Ratio	0.26	0.01	0.02	0.13
Control Delay	17.6	6.5	6.5	5.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	17.6	6.5	6.5	5.5
Queue Length 50th (ft)	35	1	3	14
Queue Length 95th (ft)	62	5	7	33
Internal Link Dist (ft)	323		385	393
Turn Bay Length (ft)				
Base Capacity (vph)	944	694	1026	974
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.01	0.02	0.13

Intersection Summary

Lane Group	EBT	SBL
Lane Group Flow (vph)	708	64
v/c Ratio	0.39	0.06
Control Delay	8.9	13.3
Queue Delay	0.0	0.0
Total Delay	8.9	13.3
Queue Length 50th (ft)	68	7
Queue Length 95th (ft)	82	18
Internal Link Dist (ft)	315	385
Turn Bay Length (ft)		
Base Capacity (vph)	2450	2332
Starvation Cap Reductn	250	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.32	0.03

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	14	659	8	201	2	30	19	104
v/c Ratio	0.02	0.71	0.03	0.21	0.01	0.06	0.04	0.18
Control Delay	9.2	12.8	7.9	8.4	14.5	9.9	15.0	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.2	12.8	7.9	8.4	14.5	9.9	15.0	13.8
Queue Length 50th (ft)	2	93	1	35	1	3	5	22
Queue Length 95th (ft)	m4	124	7	66	4	17	13	37
Internal Link Dist (ft)		1209		158		224		156
Turn Bay Length (ft)	150		150		75		75	
Base Capacity (vph)	600	932	245	943	398	539	426	574
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.71	0.03	0.21	0.01	0.06	0.04	0.18

Intersection Summary

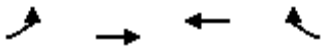
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	146	7	37	7	13
v/c Ratio	0.16	0.01	0.04	0.01	0.02
Control Delay	8.1	12.4	12.1	12.4	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.1	12.4	12.1	12.4	7.1
Queue Length 50th (ft)	24	0	8	2	0
Queue Length 95th (ft)	34	8	23	9	9
Internal Link Dist (ft)	725		314	116	
Turn Bay Length (ft)		75			
Base Capacity (vph)	920	631	950	575	595
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	0.16	0.01	0.04	0.01	0.02

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	8	95	4	100	64	77
v/c Ratio	0.01	0.10	0.01	0.10	0.12	0.15
Control Delay	6.7	7.0	6.7	5.9	14.6	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	7.0	6.7	5.9	14.6	15.8
Queue Length 50th (ft)	1	15	1	12	15	19
Queue Length 95th (ft)	6	31	4	27	30	45
Internal Link Dist (ft)		284		719	378	889
Turn Bay Length (ft)	40		45			
Base Capacity (vph)	683	981	686	960	541	508
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	0.01	0.10	0.01	0.10	0.12	0.15

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR
Lane Group Flow (vph)	460	639	382	672
v/c Ratio	0.61	0.18	0.23	0.74
Control Delay	23.7	0.1	10.1	8.5
Queue Delay	0.2	0.0	0.0	0.0
Total Delay	23.9	0.1	10.1	8.5
Queue Length 50th (ft)	200	0	38	39
Queue Length 95th (ft)	268	0	57	57
Internal Link Dist (ft)		380	250	
Turn Bay Length (ft)	200			125
Base Capacity (vph)	919	3539	1862	992
Starvation Cap Reductn	79	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.55	0.18	0.21	0.68

Intersection Summary

Lane Group	EBT	WBT	WBR	SEL
Lane Group Flow (vph)	361	1056	534	624
v/c Ratio	0.22	0.66	0.37	0.43
Control Delay	18.8	14.4	0.7	18.5
Queue Delay	0.3	0.2	0.0	0.1
Total Delay	19.1	14.6	0.7	18.7
Queue Length 50th (ft)	70	150	0	126
Queue Length 95th (ft)	114	203	0	159
Internal Link Dist (ft)	185	745		250
Turn Bay Length (ft)			150	
Base Capacity (vph)	1862	1788	1441	1782
Starvation Cap Reductn	948	0	0	380
Spillback Cap Reductn	0	188	6	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.39	0.66	0.37	0.45

Intersection Summary



Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SWL2
Lane Group Flow (vph)	331	61	275	150	986	15	16
v/c Ratio	0.42	0.04	0.35	0.22	0.67	0.02	0.03
Control Delay	13.8	0.1	12.9	9.1	16.1	3.9	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	0.1	12.9	9.1	16.1	3.9	10.0
Queue Length 50th (ft)	76	0	61	23	136	0	3
Queue Length 95th (ft)	133	0	106	52	132	4	12
Internal Link Dist (ft)	530		1070		390		
Turn Bay Length (ft)						40	
Base Capacity (vph)	783	1583	783	686	1472	678	585
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	0.04	0.35	0.22	0.67	0.02	0.03

Intersection Summary



Lane Group	EBT	WBT	WBR	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	348	377	194	416	99	134	55
v/c Ratio	0.29	0.28	0.25	0.30	0.25	0.09	0.08
Control Delay	10.6	11.2	2.9	10.4	12.6	9.9	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.6	11.2	2.9	10.4	12.6	9.9	3.7
Queue Length 50th (ft)	34	40	0	41	20	13	0
Queue Length 95th (ft)	59	60	24	63	46	25	15
Internal Link Dist (ft)	1070	560		504		596	
Turn Bay Length (ft)			40		70		85
Base Capacity (vph)	1197	1354	781	1386	393	1451	693
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	0.29	0.28	0.25	0.30	0.25	0.09	0.08

Intersection Summary

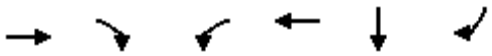
Lane Group	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	330	158	660	588
v/c Ratio	0.32	0.27	0.70	0.30
Control Delay	20.2	4.8	36.3	8.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	20.2	4.8	36.3	8.9
Queue Length 50th (ft)	58	0	153	62
Queue Length 95th (ft)	86	36	145	93
Internal Link Dist (ft)	277		340	540
Turn Bay Length (ft)		100		
Base Capacity (vph)	1388	740	1276	1935
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	2	0	61
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.24	0.21	0.52	0.31

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	31	317	354	28	285	715	60
v/c Ratio	0.11	0.32	0.35	0.06	0.29	0.69	0.07
Control Delay	4.9	5.0	21.1	5.1	9.3	15.5	3.8
Queue Delay	0.0	0.0	0.0	0.0	5.9	52.7	0.0
Total Delay	4.9	5.0	21.1	5.1	15.2	68.3	3.8
Queue Length 50th (ft)	1	7	63	0	60	202	3
Queue Length 95th (ft)	6	17	87	10	93	281	16
Internal Link Dist (ft)		340	361			110	
Turn Bay Length (ft)	100			50			50
Base Capacity (vph)	290	991	1001	490	981	1042	879
Starvation Cap Reductn	0	0	0	0	629	481	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	0.11	0.32	0.35	0.06	0.81	1.27	0.07

Intersection Summary



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	250	313	18	209	803	186
v/c Ratio	0.57	0.20	0.12	0.43	0.37	0.18
Control Delay	28.5	0.3	24.7	19.0	9.2	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	0.3	24.7	19.0	9.2	2.5
Queue Length 50th (ft)	96	0	7	78	74	0
Queue Length 95th (ft)	147	0	21	98	172	29
Internal Link Dist (ft)	322			290	610	
Turn Bay Length (ft)		110	200			
Base Capacity (vph)	718	1583	265	1096	2147	1033
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	0.35	0.20	0.07	0.19	0.37	0.18

Intersection Summary



Lane Group	EBL	NBT
Lane Group Flow (vph)	256	1105
v/c Ratio	0.58	0.35
Control Delay	10.7	7.5
Queue Delay	0.0	0.0
Total Delay	10.7	7.5
Queue Length 50th (ft)	113	75
Queue Length 95th (ft)	10	121
Internal Link Dist (ft)	290	625
Turn Bay Length (ft)		
Base Capacity (vph)	649	3119
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.39	0.35

Intersection Summary

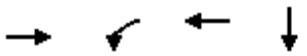
Lane Group	WBL	SBT
Lane Group Flow (vph)	132	1118
v/c Ratio	0.40	0.30
Control Delay	29.2	4.9
Queue Delay	0.0	0.0
Total Delay	29.2	4.9
Queue Length 50th (ft)	55	56
Queue Length 95th (ft)	74	116
Internal Link Dist (ft)	265	624
Turn Bay Length (ft)		
Base Capacity (vph)	925	3741
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.14	0.30

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	20	268	121	234	938	624
v/c Ratio	0.07	0.59	0.27	0.52	0.29	0.53
Control Delay	20.2	29.3	22.8	18.6	7.1	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.5	1.5
Total Delay	20.2	29.4	22.8	18.6	7.5	5.6
Queue Length 50th (ft)	7	105	43	55	57	23
Queue Length 95th (ft)	21	164	74	98	113	96
Internal Link Dist (ft)		265	346		185	
Turn Bay Length (ft)	175			150		
Base Capacity (vph)	672	990	990	881	3201	1171
Starvation Cap Reductn	0	51	0	0	1653	351
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.29	0.12	0.27	0.61	0.76

Intersection Summary



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	498	100	357	940
v/c Ratio	0.53	0.46	0.24	0.42
Control Delay	23.0	46.0	10.7	15.1
Queue Delay	0.0	0.0	0.0	0.3
Total Delay	23.0	46.0	10.7	15.5
Queue Length 50th (ft)	94	48	27	94
Queue Length 95th (ft)	122	m84	m21	159
Internal Link Dist (ft)	400		250	176
Turn Bay Length (ft)		100		
Base Capacity (vph)	1069	379	2032	2231
Starvation Cap Reductn	0	0	0	659
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.47	0.26	0.18	0.60

Intersection Summary

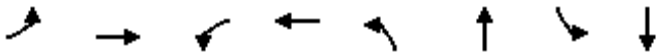
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	138	516	406	110	1369	24
v/c Ratio	0.44	0.25	0.32	0.17	0.96	0.05
Control Delay	40.4	5.2	17.2	4.3	42.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.4	5.2	17.2	4.3	42.0	0.2
Queue Length 50th (ft)	66	35	65	0	211	0
Queue Length 95th (ft)	121	61	91	25	#281	0
Internal Link Dist (ft)		250	510		555	
Turn Bay Length (ft)	75			125		150
Base Capacity (vph)	316	2082	1263	636	1429	500
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	0.44	0.25	0.32	0.17	0.96	0.05

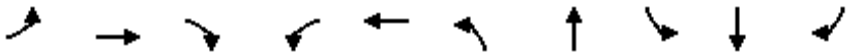
Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	527	98	529	69	606	116	353
v/c Ratio	0.31	0.61	0.36	0.59	0.29	0.64	0.41	0.34
Control Delay	35.9	27.7	35.6	25.8	36.0	26.8	35.4	19.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	27.7	35.6	25.8	36.0	26.8	35.4	19.3
Queue Length 50th (ft)	29	100	37	96	26	114	44	52
Queue Length 95th (ft)	86	200	97	178	68	182	114	110
Internal Link Dist (ft)		430		410		410		430
Turn Bay Length (ft)	200		190		100		100	
Base Capacity (vph)	533	1875	533	1859	533	1864	533	1847
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.28	0.18	0.28	0.13	0.33	0.22	0.19

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	124	471	132	129	600	120	683	156	512	92
v/c Ratio	0.56	0.54	0.27	0.58	0.60	0.55	0.73	0.64	0.46	0.16
Control Delay	47.6	30.7	6.9	47.8	28.0	47.4	34.7	49.3	28.2	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.6	30.7	6.9	47.8	28.0	47.4	34.7	49.3	28.2	5.4
Queue Length 50th (ft)	64	114	0	66	135	62	171	80	118	0
Queue Length 95th (ft)	132	187	45	131	213	128	285	149	192	24
Internal Link Dist (ft)		420			420		420		420	
Turn Bay Length (ft)	200		100	200		200		200		75
Base Capacity (vph)	349	1179	615	349	1168	349	1011	349	1114	572
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	0.36	0.40	0.21	0.37	0.51	0.34	0.68	0.45	0.46	0.16

Intersection Summary



Lane Group	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	341	182	60	756
v/c Ratio	0.65	0.11	0.12	0.36
Control Delay	27.4	0.1	17.3	6.2
Queue Delay	0.0	0.0	0.0	0.3
Total Delay	27.4	0.1	17.3	6.5
Queue Length 50th (ft)	128	0	19	23
Queue Length 95th (ft)	183	0	38	146
Internal Link Dist (ft)	365		338	190
Turn Bay Length (ft)		250		
Base Capacity (vph)	785	1583	747	2104
Starvation Cap Reductn	0	0	0	693
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.43	0.11	0.08	0.54

Intersection Summary



Lane Group	EBL	NBT
Lane Group Flow (vph)	342	855
v/c Ratio	0.65	0.43
Control Delay	25.6	9.9
Queue Delay	0.0	0.2
Total Delay	25.6	10.1
Queue Length 50th (ft)	112	90
Queue Length 95th (ft)	187	123
Internal Link Dist (ft)	338	310
Turn Bay Length (ft)		
Base Capacity (vph)	781	1970
Starvation Cap Reductn	0	417
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.44	0.55

Intersection Summary



Lane Group	EBT	EBR	SBL	SBT
Lane Group Flow (vph)	261	129	419	373
v/c Ratio	0.29	0.26	0.33	0.17
Control Delay	20.6	4.2	2.3	3.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	20.6	4.2	2.3	3.7
Queue Length 50th (ft)	51	0	0	6
Queue Length 95th (ft)	43	19	152	80
Internal Link Dist (ft)	431			470
Turn Bay Length (ft)		25	150	
Base Capacity (vph)	2022	959	1260	2204
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.13	0.13	0.33	0.17

Intersection Summary



Lane Group	EBL	EBT	NBT	NBR
Lane Group Flow (vph)	258	424	566	497
v/c Ratio	0.36	0.71	0.28	0.47
Control Delay	6.0	33.3	11.0	6.2
Queue Delay	0.0	0.1	0.0	0.0
Total Delay	6.0	33.4	11.0	6.2
Queue Length 50th (ft)	18	211	78	45
Queue Length 95th (ft)	52	248	100	62
Internal Link Dist (ft)		395	720	
Turn Bay Length (ft)				125
Base Capacity (vph)	905	828	2047	1049
Starvation Cap Reductn	0	39	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.29	0.54	0.28	0.47

Intersection Summary



Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	264	749	344	159
v/c Ratio	0.16	0.40	0.35	0.15
Control Delay	7.9	9.6	2.2	14.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.9	9.6	2.2	14.0
Queue Length 50th (ft)	24	78	0	19
Queue Length 95th (ft)	39	107	27	37
Internal Link Dist (ft)	550	438		520
Turn Bay Length (ft)			125	
Base Capacity (vph)	1656	1858	988	1093
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.16	0.40	0.35	0.15

Intersection Summary

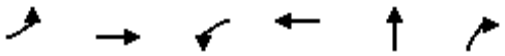
Lane Group	EBT	WBT	WBR	NBT	NBR2	SBL	SBT	SWR2
Lane Group Flow (vph)	187	94	565	419	27	171	80	12
v/c Ratio	0.45	0.22	0.49	0.68	0.07	0.22	0.10	0.04
Control Delay	34.7	31.1	7.9	42.9	0.4	20.2	19.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.7	31.1	7.9	42.9	0.4	20.2	19.1	0.2
Queue Length 50th (ft)	99	48	111	124	0	61	26	0
Queue Length 95th (ft)	138	71	195	133	0	141	72	0
Internal Link Dist (ft)	310	1100		571			552	
Turn Bay Length (ft)					75			
Base Capacity (vph)	544	547	1145	677	398	775	815	355
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.17	0.49	0.62	0.07	0.22	0.10	0.03

Intersection Summary



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	272	8	396	14	34	116	238	83
v/c Ratio	0.34	0.02	0.49	0.03	0.05	0.16	0.31	0.12
Control Delay	12.1	9.7	14.6	10.4	4.5	11.4	12.8	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.1	9.7	14.6	10.4	4.5	11.4	12.8	3.6
Queue Length 50th (ft)	57	2	95	3	0	24	53	0
Queue Length 95th (ft)	105	8	162	11	13	51	97	20
Internal Link Dist (ft)	1100		365				400	
Turn Bay Length (ft)		75			60	60		
Base Capacity (vph)	799	448	803	457	674	732	770	703
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.02	0.49	0.03	0.05	0.16	0.31	0.12

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR
Lane Group Flow (vph)	220	383	13	587	938	27
v/c Ratio	0.44	0.31	0.02	0.49	3.40	0.10
Control Delay	8.3	4.6	7.4	12.3	1103.2	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	4.6	7.4	12.3	1103.2	3.9
Queue Length 50th (ft)	31	42	2	152	~623	0
Queue Length 95th (ft)	46	52	m7	181	#533	1
Internal Link Dist (ft)		365		1056	411	
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	495	1216	661	1189	276	284
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	0.44	0.31	0.02	0.49	3.40	0.10

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	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	454	325	107	376	91
v/c Ratio	0.54	0.38	0.16	0.27	0.14
Control Delay	14.5	12.4	12.7	13.2	3.9
Queue Delay	0.0	0.6	0.0	0.0	0.0
Total Delay	14.5	13.0	12.7	13.2	3.9
Queue Length 50th (ft)	109	72	24	46	0
Queue Length 95th (ft)	174	116	49	70	21
Internal Link Dist (ft)	330	230		550	
Turn Bay Length (ft)					100
Base Capacity (vph)	845	846	685	1370	668
Starvation Cap Reductn	0	239	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.54	0.54	0.16	0.27	0.14

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	239	279	91	212	147	330	1053
v/c Ratio	0.33	0.24	0.13	0.18	0.15	0.95	1.51
Control Delay	6.7	4.7	5.1	5.1	3.7	65.0	262.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	4.7	5.1	5.1	3.7	65.0	262.1
Queue Length 50th (ft)	34	31	11	27	13	119	~293
Queue Length 95th (ft)	67	58	21	40	24	#157	#263
Internal Link Dist (ft)		230		440			405
Turn Bay Length (ft)	110		100		100	125	
Base Capacity (vph)	733	1183	689	1173	1012	348	696
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	0.33	0.24	0.13	0.18	0.15	0.95	1.51

Intersection Summary

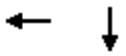
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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



Lane Group	WBL	WBT	SBL	SBR	SER	NWT
Lane Group Flow (vph)	115	193	105	303	10	44
v/c Ratio	0.20	0.31	0.15	0.25	0.01	0.11
Control Delay	12.7	13.4	11.5	6.4	0.0	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	13.4	11.5	6.4	0.0	16.8
Queue Length 50th (ft)	12	20	10	7	0	5
Queue Length 95th (ft)	39	59	49	40	0	36
Internal Link Dist (ft)		349	215			183
Turn Bay Length (ft)						
Base Capacity (vph)	685	721	1167	1890	996	674
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	0.17	0.27	0.09	0.16	0.01	0.07

Intersection Summary



Lane Group	WBT	SBT
Lane Group Flow (vph)	675	132
v/c Ratio	0.38	0.21
Control Delay	8.6	12.0
Queue Delay	0.0	0.0
Total Delay	8.6	12.0
Queue Length 50th (ft)	63	25
Queue Length 95th (ft)	72	39
Internal Link Dist (ft)	724	409
Turn Bay Length (ft)		
Base Capacity (vph)	1797	622
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.38	0.21

Intersection Summary



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	573	48	147	516	71
v/c Ratio	0.43	0.08	0.23	0.58	0.08
Control Delay	14.8	4.7	10.2	14.2	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	14.8	4.7	10.2	14.2	8.1
Queue Length 50th (ft)	76	0	28	121	12
Queue Length 95th (ft)	98	14	51	171	29
Internal Link Dist (ft)	724			395	398
Turn Bay Length (ft)		100	100		
Base Capacity (vph)	1326	626	634	893	886
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	0.08	0.23	0.58	0.08

Intersection Summary



Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	719	46	176	132
v/c Ratio	0.69	0.09	0.22	0.13
Control Delay	35.5	19.6	10.3	4.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	35.5	19.6	10.3	4.5
Queue Length 50th (ft)	152	5	57	12
Queue Length 95th (ft)	176	m17	76	32
Internal Link Dist (ft)	341		377	420
Turn Bay Length (ft)		75		
Base Capacity (vph)	1046	499	816	981
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.69	0.09	0.22	0.13

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	1029	114	236	613
v/c Ratio	0.70	0.21	0.16	0.36
Control Delay	22.0	5.1	7.6	8.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	22.0	5.1	7.6	8.8
Queue Length 50th (ft)	120	0	21	60
Queue Length 95th (ft)	125	19	34	74
Internal Link Dist (ft)	328		377	547
Turn Bay Length (ft)		100		
Base Capacity (vph)	1470	540	1491	1682
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.70	0.21	0.16	0.36

Intersection Summary

Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	473	177	222
v/c Ratio	0.18	0.12	0.17
Control Delay	7.8	9.3	11.1
Queue Delay	0.0	0.0	0.0
Total Delay	7.8	9.3	11.1
Queue Length 50th (ft)	27	15	23
Queue Length 95th (ft)	50	25	39
Internal Link Dist (ft)	189	898	377
Turn Bay Length (ft)			
Base Capacity (vph)	2696	1799	1629
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.18	0.10	0.14

Intersection Summary



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	31	249	31	119	71	51	57
v/c Ratio	0.03	0.13	0.03	0.40	0.21	0.26	0.24
Control Delay	11.3	10.3	0.1	26.3	3.9	22.3	21.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.3	10.3	0.1	26.3	3.9	22.3	21.4
Queue Length 50th (ft)	5	23	0	40	0	12	14
Queue Length 95th (ft)	23	57	0	40	0	m31	m32
Internal Link Dist (ft)		339		246			377
Turn Bay Length (ft)	100		150		100	75	
Base Capacity (vph)	991	1982	932	428	444	277	336
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	0.03	0.13	0.03	0.28	0.16	0.18	0.17

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	507	620	10	117
v/c Ratio	0.39	0.69	0.04	0.13
Control Delay	13.8	16.2	8.2	8.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	13.8	16.2	8.2	8.6
Queue Length 50th (ft)	56	156	2	21
Queue Length 95th (ft)	90	233	8	41
Internal Link Dist (ft)	296	401		395
Turn Bay Length (ft)			100	
Base Capacity (vph)	1516	1118	286	1126
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.33	0.55	0.03	0.10

Intersection Summary



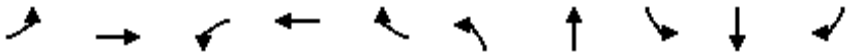
Lane Group	EBT	EBR	SBL	SBT
Lane Group Flow (vph)	404	64	29	197
v/c Ratio	0.22	0.08	0.05	0.17
Control Delay	8.4	2.6	10.0	17.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	8.4	2.6	10.0	17.5
Queue Length 50th (ft)	38	0	0	32
Queue Length 95th (ft)	52	12	11	46
Internal Link Dist (ft)	720			384
Turn Bay Length (ft)		50	50	
Base Capacity (vph)	1853	843	644	1180
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.22	0.08	0.05	0.17

Intersection Summary



Lane Group	EBL	EBT	WBR	NBT
Lane Group Flow (vph)	287	294	16	734
v/c Ratio	0.36	0.36	0.02	0.48
Control Delay	7.7	7.7	0.1	13.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.7	7.7	0.1	13.2
Queue Length 50th (ft)	35	36	0	91
Queue Length 95th (ft)	72	73	0	105
Internal Link Dist (ft)		314		897
Turn Bay Length (ft)				
Base Capacity (vph)	792	815	776	1520
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.36	0.36	0.02	0.48

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	192	454	44	384	48	9	95	46	63	81
v/c Ratio	0.33	0.19	0.30	0.28	0.08	0.05	0.34	0.24	0.23	0.27
Control Delay	24.3	7.2	31.8	17.8	7.5	25.0	24.8	29.7	28.7	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	7.2	31.8	17.8	7.5	25.0	24.8	29.7	28.7	8.7
Queue Length 50th (ft)	68	41	19	38	0	4	32	20	27	0
Queue Length 95th (ft)	144	94	54	107	15	12	53	42	52	31
Internal Link Dist (ft)		296		337			250		199	
Turn Bay Length (ft)	120		120		55	115		125		
Base Capacity (vph)	586	2423	320	1360	637	354	485	343	495	480
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	0.33	0.19	0.14	0.28	0.08	0.03	0.20	0.13	0.13	0.17

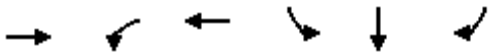
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	17	591	111	560	113	192	196	138	35
v/c Ratio	0.14	0.46	0.53	0.33	0.53	0.64	0.66	0.39	0.09
Control Delay	33.0	22.9	39.7	14.6	39.4	31.5	39.6	28.3	0.4
Queue Delay	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
Total Delay	33.0	22.9	39.7	15.3	39.4	31.5	39.6	28.3	0.4
Queue Length 50th (ft)	6	115	50	67	51	64	88	58	0
Queue Length 95th (ft)	17	#242	93	174	90	110	108	72	0
Internal Link Dist (ft)		337		168		395		179	
Turn Bay Length (ft)	100		125		100				
Base Capacity (vph)	321	1298	321	1698	554	343	554	381	429
Starvation Cap Reductn	0	0	0	742	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	0.05	0.46	0.35	0.59	0.20	0.56	0.35	0.36	0.08

Intersection Summary

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



Lane Group	EBT	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	715	201	457	157	202	225
v/c Ratio	0.65	0.65	0.23	0.29	0.36	0.35
Control Delay	28.3	41.4	10.2	21.3	22.1	4.5
Queue Delay	8.8	0.0	0.1	0.0	0.0	0.0
Total Delay	37.0	41.4	10.2	21.3	22.1	4.5
Queue Length 50th (ft)	142	86	50	54	71	0
Queue Length 95th (ft)	#327	186	116	108	135	43
Internal Link Dist (ft)	168		218		367	
Turn Bay Length (ft)						
Base Capacity (vph)	1102	728	2813	1165	1226	1119
Starvation Cap Reductn	350	24	1016	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	0.95	0.29	0.25	0.13	0.16	0.20

Intersection Summary

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



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	373	468	609	583	236	194
v/c Ratio	0.72	0.19	0.49	0.73	0.42	0.46
Control Delay	34.4	4.5	21.6	14.4	30.2	8.2
Queue Delay	8.6	0.0	1.4	2.6	0.0	0.0
Total Delay	43.0	4.5	23.0	16.9	30.2	8.2
Queue Length 50th (ft)	152	33	120	78	53	0
Queue Length 95th (ft)	#252	52	159	182	77	44
Internal Link Dist (ft)		218	178		514	
Turn Bay Length (ft)						
Base Capacity (vph)	517	2463	1233	794	910	559
Starvation Cap Reductn	110	0	413	113	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.19	0.74	0.86	0.26	0.35

Intersection Summary

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



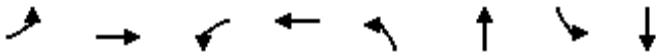
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	110	507	24	1069	137	199
v/c Ratio	0.46	0.26	0.05	0.53	0.23	0.29
Control Delay	19.7	7.4	8.5	9.8	15.0	14.4
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	19.7	7.7	8.5	9.8	15.0	14.4
Queue Length 50th (ft)	13	26	2	69	16	22
Queue Length 95th (ft)	#112	108	18	245	30	37
Internal Link Dist (ft)		178		725	909	898
Turn Bay Length (ft)	100		75			
Base Capacity (vph)	239	1985	510	2026	1762	1989
Starvation Cap Reductn	0	809	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	0.46	0.43	0.05	0.53	0.08	0.10

Intersection Summary

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

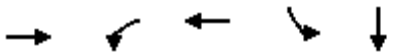
Lane Group	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	426	909	54	248	24	140
v/c Ratio	0.30	0.62	0.08	0.18	0.05	0.09
Control Delay	15.4	20.0	4.7	11.1	12.3	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	20.0	4.7	11.1	12.3	9.9
Queue Length 50th (ft)	67	173	0	30	6	15
Queue Length 95th (ft)	100	194	15	47	19	30
Internal Link Dist (ft)	725	334		888		412
Turn Bay Length (ft)			200		100	
Base Capacity (vph)	1424	1457	683	1640	583	1749
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	0.30	0.62	0.08	0.15	0.04	0.08

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	121	344	73	440	137	488	71	328
v/c Ratio	0.59	0.37	0.46	0.57	0.63	0.32	0.46	0.47
Control Delay	58.3	33.1	57.3	40.9	58.5	21.8	57.2	28.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.3	33.1	57.3	40.9	58.5	21.8	57.2	28.4
Queue Length 50th (ft)	84	102	51	145	95	113	49	158
Queue Length 95th (ft)	140	140	88	175	152	183	91	277
Internal Link Dist (ft)		320		729		891		406
Turn Bay Length (ft)	150		125		150		150	
Base Capacity (vph)	316	966	316	929	316	1535	252	697
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.36	0.23	0.47	0.43	0.32	0.28	0.47

Intersection Summary



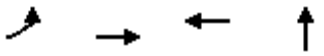
Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	648	54	448	57	283
v/c Ratio	0.48	0.19	0.33	0.10	0.26
Control Delay	9.7	11.7	9.8	9.1	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.7	11.7	9.8	9.1	8.3
Queue Length 50th (ft)	30	5	23	7	15
Queue Length 95th (ft)	108	37	96	24	38
Internal Link Dist (ft)	729		707		908
Turn Bay Length (ft)		100		75	
Base Capacity (vph)	3011	665	3143	1339	2623
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	0.22	0.08	0.14	0.04	0.11

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	25	557	61	469	111	291	88	84	43
v/c Ratio	0.09	0.43	0.20	0.36	0.24	0.45	0.23	0.13	0.08
Control Delay	11.1	11.0	12.1	10.4	10.7	10.0	10.9	9.3	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	11.0	12.1	10.4	10.7	10.0	10.9	9.3	3.9
Queue Length 50th (ft)	3	38	7	31	15	32	12	11	0
Queue Length 95th (ft)	19	108	35	84	33	57	36	32	11
Internal Link Dist (ft)		707		320		887		416	
Turn Bay Length (ft)	100		100		100		100		75
Base Capacity (vph)	616	2905	689	2899	1092	1457	897	1556	1232
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	0.04	0.19	0.09	0.16	0.10	0.20	0.10	0.05	0.03

Intersection Summary



Lane Group	EBL	EBT	WBT	NBT
Lane Group Flow (vph)	46	621	453	554
v/c Ratio	0.13	0.46	0.34	0.44
Control Delay	11.1	11.6	9.6	10.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.1	11.6	9.6	10.0
Queue Length 50th (ft)	6	48	29	41
Queue Length 95th (ft)	30	126	83	73
Internal Link Dist (ft)		320	512	890
Turn Bay Length (ft)	100			
Base Capacity (vph)	709	2770	2682	2287
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.06	0.22	0.17	0.24

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	5	151	168	170	231	10	366	576	351	252	9
v/c Ratio	0.02	0.57	0.47	0.47	0.45	0.11	0.57	0.70	0.82	0.16	0.01
Control Delay	44.2	53.0	43.5	43.4	8.2	60.6	45.2	20.8	57.2	19.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	53.0	43.5	43.4	8.2	60.6	45.2	20.8	57.2	19.8	0.0
Queue Length 50th (ft)	3	97	105	106	0	7	122	206	222	48	0
Queue Length 95th (ft)	15	172	203	204	54	28	191	348	#496	114	0
Internal Link Dist (ft)		390		1100			533			550	
Turn Bay Length (ft)	75		225			125		325	250		100
Base Capacity (vph)	317	332	513	519	644	251	1076	950	538	1778	851
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.45	0.33	0.33	0.36	0.04	0.34	0.61	0.65	0.14	0.01

Intersection Summary

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



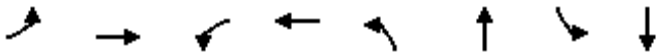
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	9	112	41	289	204	136
v/c Ratio	0.03	0.18	0.10	0.47	0.12	0.08
Control Delay	13.5	12.2	14.1	17.2	6.5	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.5	12.2	14.1	17.2	6.5	6.6
Queue Length 50th (ft)	2	21	10	71	15	10
Queue Length 95th (ft)	10	51	24	108	28	18
Internal Link Dist (ft)		719		260	398	888
Turn Bay Length (ft)	50		50			
Base Capacity (vph)	299	612	422	613	1703	1664
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	0.03	0.18	0.10	0.47	0.12	0.08

Intersection Summary



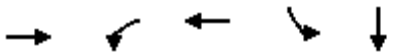
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	19	118	42	330	29	253	115	186	48
v/c Ratio	0.04	0.08	0.08	0.21	0.06	0.34	0.26	0.25	0.07
Control Delay	9.4	8.4	9.7	6.7	10.8	11.7	13.3	12.3	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.4	8.4	9.7	6.7	10.8	11.7	13.3	12.3	4.2
Queue Length 50th (ft)	3	10	8	21	6	49	25	40	0
Queue Length 95th (ft)	12	21	22	41	16	75	53	73	15
Internal Link Dist (ft)		260		1118		877		424	
Turn Bay Length (ft)	85		100		75		100		
Base Capacity (vph)	454	1541	555	1543	483	748	435	755	670
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	0.04	0.08	0.08	0.21	0.06	0.34	0.26	0.25	0.07

Intersection Summary



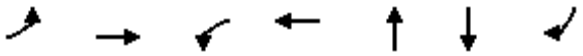
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	55	241	49	471	67	449	87	240
v/c Ratio	0.31	0.20	0.29	0.38	0.36	0.43	0.42	0.43
Control Delay	36.3	18.7	36.1	13.5	36.6	22.4	36.7	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.3	18.7	36.1	13.5	36.6	22.4	36.7	23.2
Queue Length 50th (ft)	23	39	21	52	29	85	37	83
Queue Length 95th (ft)	58	74	48	83	67	137	84	162
Internal Link Dist (ft)		1118		739		884		891
Turn Bay Length (ft)	150		140		100		100	
Base Capacity (vph)	432	1285	432	1332	432	1602	432	833
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.19	0.11	0.35	0.16	0.28	0.20	0.29

Intersection Summary



Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	558	69	413	261	625
v/c Ratio	0.33	0.18	0.24	0.42	0.49
Control Delay	8.9	9.5	8.7	15.9	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.9	9.5	8.7	15.9	12.5
Queue Length 50th (ft)	51	12	37	62	63
Queue Length 95th (ft)	74	31	60	68	54
Internal Link Dist (ft)	739		700		887
Turn Bay Length (ft)		75		50	
Base Capacity (vph)	1696	382	1720	622	1269
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	0.33	0.18	0.24	0.42	0.49

Intersection Summary



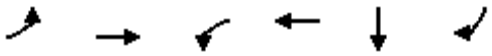
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	37	849	30	480	356	285	63
v/c Ratio	0.09	0.48	0.12	0.28	0.55	0.65	0.11
Control Delay	8.8	11.3	9.9	9.2	14.9	24.3	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	11.3	9.9	9.2	14.9	24.3	4.5
Queue Length 50th (ft)	7	98	5	47	72	82	0
Queue Length 95th (ft)	19	131	18	71	125	109	12
Internal Link Dist (ft)		700		324	1841	887	
Turn Bay Length (ft)	60		75				75
Base Capacity (vph)	431	1758	246	1739	647	437	578
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	0.09	0.48	0.12	0.28	0.55	0.65	0.11

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	18	1218	508	38	46	151	114
v/c Ratio	0.03	0.50	0.21	0.04	0.12	0.36	0.29
Control Delay	7.7	8.8	6.7	3.5	17.5	20.7	13.9
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	9.0	6.7	3.5	17.5	20.7	13.9
Queue Length 50th (ft)	2	93	30	0	13	45	20
Queue Length 95th (ft)	13	230	90	12	30	76	46
Internal Link Dist (ft)		324	505			1849	
Turn Bay Length (ft)	75			75			50
Base Capacity (vph)	583	2432	2384	1078	841	886	775
Starvation Cap Reductn	0	426	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	0.03	0.61	0.21	0.04	0.05	0.17	0.15

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	32	1473	147	647	301	29
v/c Ratio	0.06	0.60	0.84	0.26	0.79	0.08
Control Delay	7.1	10.7	57.0	6.9	58.1	17.1
Queue Delay	0.0	0.0	0.0	0.5	0.0	0.0
Total Delay	7.1	10.7	57.0	7.5	58.1	17.1
Queue Length 50th (ft)	7	257	70	78	211	4
Queue Length 95th (ft)	17	280	#248	134	226	19
Internal Link Dist (ft)		324		303	295	
Turn Bay Length (ft)	100		175			50
Base Capacity (vph)	515	2460	174	2452	610	542
Starvation Cap Reductn	0	0	0	1313	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.60	0.84	0.57	0.49	0.05

Intersection Summary

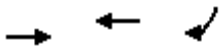
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1110	260	280	570	319
v/c Ratio	0.57	0.13	0.53	0.52	0.49
Control Delay	16.1	11.0	22.5	21.1	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.1	11.0	22.5	21.1	5.9
Queue Length 50th (ft)	142	24	123	125	0
Queue Length 95th (ft)	#410	75	113	96	62
Internal Link Dist (ft)	1100	380		1000	
Turn Bay Length (ft)			200		225
Base Capacity (vph)	1958	1959	1131	2325	744
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	0.13	0.25	0.25	0.43

Intersection Summary

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



Lane Group	EBT	WBT	SBR
Lane Group Flow (vph)	1462	505	319
v/c Ratio	0.41	0.23	0.47
Control Delay	0.4	4.9	16.4
Queue Delay	0.0	0.0	0.0
Total Delay	0.4	4.9	16.4
Queue Length 50th (ft)	0	31	38
Queue Length 95th (ft)	0	52	72
Internal Link Dist (ft)	303	471	
Turn Bay Length (ft)			
Base Capacity (vph)	3539	2226	2787
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.41	0.23	0.11

Intersection Summary

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	973	469	370	132	294
v/c Ratio	0.84	0.33	0.33	0.13	0.30
Control Delay	32.2	0.6	31.5	10.0	6.1
Queue Delay	27.6	0.0	1.5	0.0	0.6
Total Delay	59.8	0.6	33.1	10.0	6.7
Queue Length 50th (ft)	258	0	126	37	44
Queue Length 95th (ft)	237	0	177	65	88
Internal Link Dist (ft)	471		185	347	
Turn Bay Length (ft)		100			100
Base Capacity (vph)	1238	1441	1218	1098	1036
Starvation Cap Reductn	0	0	648	0	0
Spillback Cap Reductn	306	0	0	0	425
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.04	0.33	0.65	0.12	0.48

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	422	979	202	111	722	413	492	57	276	378	94
v/c Ratio	0.75	0.72	0.31	0.41	0.69	0.77	0.61	0.13	0.63	0.54	0.24
Control Delay	50.1	30.9	14.6	51.3	35.8	53.2	39.2	3.6	49.9	39.2	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	30.9	14.6	51.3	35.8	53.2	39.2	3.6	49.9	39.2	8.7
Queue Length 50th (ft)	128	266	47	34	206	127	146	0	85	113	0
Queue Length 95th (ft)	206	402	114	72	332	#225	212	11	140	164	37
Internal Link Dist (ft)		745			420		460			480	
Turn Bay Length (ft)	150		110	150		150		90	150		125
Base Capacity (vph)	695	1361	662	695	1203	556	1218	601	695	1361	666
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.72	0.31	0.16	0.60	0.74	0.40	0.09	0.40	0.28	0.14

Intersection Summary

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



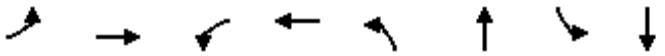
Lane Group	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	18	198	90	6	74	186
v/c Ratio	0.03	0.30	0.14	0.01	0.26	0.21
Control Delay	13.8	4.5	15.2	0.0	23.0	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	4.5	15.2	0.0	23.0	8.1
Queue Length 50th (ft)	3	0	19	0	17	26
Queue Length 95th (ft)	18	2	50	0	63	62
Internal Link Dist (ft)	725		891			877
Turn Bay Length (ft)				100	150	
Base Capacity (vph)	586	1132	1257	1088	796	1772
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	0.03	0.17	0.07	0.01	0.09	0.10

Intersection Summary



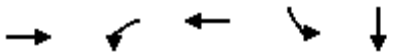
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	56	84	27	133	45	366	10	216	42
v/c Ratio	0.12	0.12	0.05	0.19	0.08	0.41	0.02	0.24	0.05
Control Delay	11.7	7.2	12.2	9.0	9.0	11.6	8.6	10.1	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.7	7.2	12.2	9.0	9.0	11.6	8.6	10.1	3.4
Queue Length 50th (ft)	11	8	6	19	8	78	2	43	0
Queue Length 95th (ft)	26	25	16	36	22	130	8	79	13
Internal Link Dist (ft)		314		327		884		884	
Turn Bay Length (ft)	50		100		100		25		50
Base Capacity (vph)	475	683	497	698	556	889	421	894	781
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	0.12	0.12	0.05	0.19	0.08	0.41	0.02	0.24	0.05

Intersection Summary



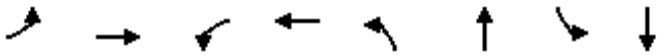
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	81	735	30	631	3	46	52	128
v/c Ratio	0.21	0.40	0.10	0.35	0.01	0.09	0.12	0.22
Control Delay	9.6	9.5	8.3	8.6	14.0	9.4	15.4	5.5
Queue Delay	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
Total Delay	9.6	9.5	8.3	9.2	14.0	9.4	15.4	5.5
Queue Length 50th (ft)	14	76	5	60	1	5	13	3
Queue Length 95th (ft)	30	90	16	85	5	23	32	31
Internal Link Dist (ft)		522		182		395		398
Turn Bay Length (ft)	75		90		100		150	
Base Capacity (vph)	381	1838	310	1811	410	537	441	586
Starvation Cap Reductn	0	0	0	758	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.40	0.10	0.60	0.01	0.09	0.12	0.22

Intersection Summary



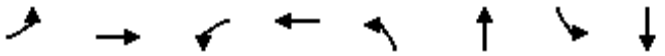
Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	673	121	401	159	213
v/c Ratio	0.48	0.40	0.19	0.39	0.40
Control Delay	15.6	27.2	5.5	23.1	6.3
Queue Delay	0.5	0.0	0.0	0.0	0.0
Total Delay	16.1	27.2	5.5	23.1	6.3
Queue Length 50th (ft)	87	37	26	46	1
Queue Length 95th (ft)	167	91	54	105	48
Internal Link Dist (ft)	182		196		582
Turn Bay Length (ft)		100			
Base Capacity (vph)	1411	1018	3364	1281	1205
Starvation Cap Reductn	353	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.64	0.12	0.12	0.12	0.18

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	23	495	65	914	74	244	76	161
v/c Ratio	0.07	0.22	0.12	0.41	0.25	0.50	0.33	0.33
Control Delay	7.9	7.1	7.8	8.6	24.3	23.4	27.0	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.9	7.1	7.8	8.6	24.3	23.4	27.0	17.6
Queue Length 50th (ft)	4	44	11	96	30	87	32	47
Queue Length 95th (ft)	16	86	32	162	57	136	62	85
Internal Link Dist (ft)		717		601		405		398
Turn Bay Length (ft)	75		100		125		125	
Base Capacity (vph)	317	2210	542	2214	383	616	293	617
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.22	0.12	0.41	0.19	0.40	0.26	0.26

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	21	627	57	783	82	34	45	168
v/c Ratio	0.17	0.33	0.20	0.32	0.46	0.12	0.22	0.31
Control Delay	42.5	12.6	23.4	3.5	41.5	22.2	33.9	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	12.6	23.4	3.5	41.5	22.2	33.9	29.9
Queue Length 50th (ft)	12	93	21	24	44	11	23	40
Queue Length 95th (ft)	34	164	m49	92	73	30	32	40
Internal Link Dist (ft)		320		718		423		402
Turn Bay Length (ft)	100		150		100		100	
Base Capacity (vph)	236	1916	334	2450	352	524	401	1031
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.33	0.17	0.32	0.23	0.06	0.11	0.16

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	42	452	42	770	228	295	71	87	208
v/c Ratio	0.25	0.25	0.30	0.43	0.79	0.54	0.13	0.36	0.37
Control Delay	28.8	5.5	60.1	15.2	47.7	29.4	1.6	26.6	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.8	5.5	60.1	15.2	47.7	29.4	1.6	26.6	20.4
Queue Length 50th (ft)	22	26	26	98	118	140	0	38	75
Queue Length 95th (ft)	54	37	54	123	167	174	8	63	103
Internal Link Dist (ft)		718		725		385			884
Turn Bay Length (ft)	140		150		90		50	100	
Base Capacity (vph)	196	1838	196	1780	427	803	747	349	802
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	0.21	0.25	0.21	0.43	0.53	0.37	0.10	0.25	0.26

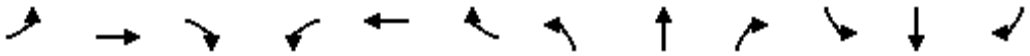
Intersection Summary



Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	599	83	883	979	14
v/c Ratio	0.27	0.18	0.40	0.97	0.03
Control Delay	6.1	14.6	14.7	54.7	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.1	14.6	14.7	54.7	10.9
Queue Length 50th (ft)	52	22	144	288	0
Queue Length 95th (ft)	65	61	233	#346	12
Internal Link Dist (ft)	725		706	1849	
Turn Bay Length (ft)		225			75
Base Capacity (vph)	2185	464	2194	1010	464
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	0.27	0.18	0.40	0.97	0.03

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)	47	602	9	6	636	25	58	114	13	121	49	231
v/c Ratio	0.33	0.25	0.01	0.05	0.28	0.02	0.26	0.38	0.03	0.59	0.15	0.49
Control Delay	48.1	4.8	0.6	50.4	6.9	0.2	28.7	30.7	6.0	45.0	30.4	8.0
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	48.1	4.8	0.6	50.4	6.9	0.2	28.7	30.7	6.0	45.0	30.4	8.0
Queue Length 50th (ft)	21	13	0	4	52	1	30	61	0	64	24	0
Queue Length 95th (ft)	m61	m90	m0	m14	66	0	43	77	5	83	38	18
Internal Link Dist (ft)		706			318			380			1841	
Turn Bay Length (ft)	200		75	100		150	175			75		50
Base Capacity (vph)	196	2432	1107	196	2304	1052	310	423	488	285	451	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	0.24	0.25	0.01	0.03	0.28	0.02	0.19	0.27	0.03	0.42	0.11	0.41

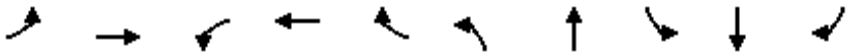
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



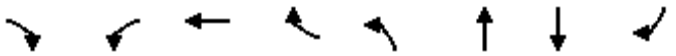
Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	81	633	736	99	145
v/c Ratio	0.15	0.23	0.27	0.23	0.45
Control Delay	2.8	2.3	3.1	35.3	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	2.8	2.3	3.1	35.3	10.3
Queue Length 50th (ft)	6	29	30	28	0
Queue Length 95th (ft)	18	47	101	38	34
Internal Link Dist (ft)		318	536	268	
Turn Bay Length (ft)	100				
Base Capacity (vph)	537	2776	2772	956	541
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	0.15	0.23	0.27	0.10	0.27

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	127	550	27	509	331	11	256	211	185	115
v/c Ratio	0.60	0.26	0.21	0.29	0.54	0.04	0.30	0.83	0.41	0.25
Control Delay	48.8	11.0	43.1	16.4	7.6	22.4	26.3	56.7	29.9	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.8	11.0	43.1	16.4	7.6	22.4	26.3	56.7	29.9	5.7
Queue Length 50th (ft)	70	59	15	86	12	5	60	114	89	0
Queue Length 95th (ft)	120	150	34	133	38	16	80	171	127	34
Internal Link Dist (ft)		420		420			420		420	
Turn Bay Length (ft)	275		125		75	75		175		
Base Capacity (vph)	314	2142	196	1742	749	354	1226	369	649	627
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	0.40	0.26	0.14	0.29	0.44	0.03	0.21	0.57	0.29	0.18

Intersection Summary



Lane Group	EBR	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	12	240	19	153	17	285	45	12
v/c Ratio	0.01	0.58	0.04	0.20	0.14	0.23	0.04	0.01
Control Delay	0.0	35.3	23.5	4.6	42.0	7.6	3.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	35.3	23.5	4.6	42.0	7.6	3.1	0.1
Queue Length 50th (ft)	0	122	8	0	9	56	2	0
Queue Length 95th (ft)	0	167	22	21	26	102	9	0
Internal Link Dist (ft)			974			434	380	
Turn Bay Length (ft)		250		250	125			125
Base Capacity (vph)	1161	885	931	1470	236	1237	1149	1003
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.27	0.02	0.10	0.07	0.23	0.04	0.01

Intersection Summary

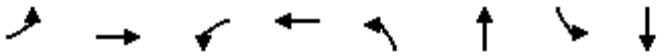


Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	660	76	44	75
v/c Ratio	0.68	0.10	0.04	0.08
Control Delay	23.5	7.2	6.7	5.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.5	7.2	6.7	5.7
Queue Length 50th (ft)	111	12	7	9
Queue Length 95th (ft)	152	10	7	24
Internal Link Dist (ft)	295		387	381
Turn Bay Length (ft)				
Base Capacity (vph)	975	726	1026	938
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.68	0.10	0.04	0.08

Intersection Summary

Lane Group	EBT	SBL
Lane Group Flow (vph)	423	80
v/c Ratio	0.23	0.07
Control Delay	7.8	13.4
Queue Delay	0.0	0.0
Total Delay	7.8	13.4
Queue Length 50th (ft)	37	9
Queue Length 95th (ft)	55	20
Internal Link Dist (ft)	345	387
Turn Bay Length (ft)		
Base Capacity (vph)	2467	2309
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.17	0.03

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	17	304	6	467	19	44	22	51
v/c Ratio	0.04	0.32	0.01	0.50	0.05	0.08	0.05	0.09
Control Delay	6.6	7.3	7.4	11.7	15.0	9.9	15.1	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.6	7.3	7.4	11.7	15.0	9.9	15.1	10.5
Queue Length 50th (ft)	2	37	1	99	5	5	6	7
Queue Length 95th (ft)	m7	59	5	136	18	24	15	20
Internal Link Dist (ft)		1056		442		145		118
Turn Bay Length (ft)	150		150		75		75	
Base Capacity (vph)	395	940	536	943	418	548	420	555
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.32	0.01	0.50	0.05	0.08	0.05	0.09

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



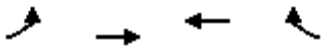
Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	77	12	171	6	11
v/c Ratio	0.09	0.02	0.18	0.01	0.02
Control Delay	7.6	10.5	11.3	12.3	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.6	10.5	11.3	12.3	7.3
Queue Length 50th (ft)	12	2	32	1	0
Queue Length 95th (ft)	30	7	46	8	9
Internal Link Dist (ft)	725		314	104	
Turn Bay Length (ft)		75			
Base Capacity (vph)	901	671	950	655	593
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	0.09	0.02	0.18	0.01	0.02

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	16	104	30	202	97	121
v/c Ratio	0.03	0.14	0.06	0.27	0.13	0.17
Control Delay	10.8	10.0	11.0	11.6	10.4	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	10.0	11.0	11.6	10.4	10.3
Queue Length 50th (ft)	3	19	6	41	18	22
Queue Length 95th (ft)	12	39	18	72	39	50
Internal Link Dist (ft)		197		719	275	909
Turn Bay Length (ft)						
Base Capacity (vph)	485	760	531	762	744	725
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	0.03	0.14	0.06	0.27	0.13	0.17

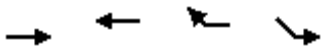
Intersection Summary



Lane Group	EBL	EBT	WBT	WBR
Lane Group Flow (vph)	858	912	283	584
v/c Ratio	0.96	0.26	0.20	0.83
Control Delay	46.8	0.2	15.4	26.7
Queue Delay	41.3	0.0	0.0	0.0
Total Delay	88.0	0.2	15.4	26.7
Queue Length 50th (ft)	535	0	46	282
Queue Length 95th (ft)	#752	0	63	#475
Internal Link Dist (ft)		380	250	
Turn Bay Length (ft)	200			125
Base Capacity (vph)	884	3539	1518	745
Starvation Cap Reductn	184	0	0	0
Spillback Cap Reductn	0	94	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.23	0.26	0.19	0.78

Intersection Summary

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



Lane Group	EBT	WBT	WBR	SEL
Lane Group Flow (vph)	840	798	424	891
v/c Ratio	0.59	0.55	0.29	0.51
Control Delay	35.3	14.8	0.5	18.2
Queue Delay	14.7	0.1	0.0	0.9
Total Delay	49.9	14.9	0.5	19.1
Queue Length 50th (ft)	278	127	0	198
Queue Length 95th (ft)	290	188	0	245
Internal Link Dist (ft)	185	745		250
Turn Bay Length (ft)			150	
Base Capacity (vph)	1518	1525	1441	1716
Starvation Cap Reductn	671	0	0	509
Spillback Cap Reductn	0	119	54	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.99	0.57	0.31	0.74

Intersection Summary

APPENDIX D:
TRAVEL FORECASTING MODEL COMPARISON

FEHR PEERS
Improving Communities Since 1985

MEMORANDUM

Date: August 28, 2015

To: Sophia Pagoulatos, City of Fresno

From: Rebecca Schafer & Rob Hananouchi, Fehr & Peers

Subject: Fresno Downtown Plans Travel Forecasting Model Comparison

RS10-2774.02

This memorandum summarizes the methodology and results of a high-level comparison of two travel demand forecasting (TDF) model options for the Fresno Downtown Plans (i.e., Fulton Corridor Specific Plan and Downtown Neighborhoods Community Plan) transportation impact study (TIS). This evaluation compares the traffic assignment outputs and countywide land use inputs from the following two models:

- The travel forecasting model used for the Fresno General Plan Update Master Environmental Impact Report (GP MEIR)
- Fresno Council of Governments (Fresno COG) Regional Transportation Plan and Sustainable Communities Strategy (RTP-SCS) TDF model.

BACKGROUND

Fehr & Peers is updating the TIS for the Fulton Corridor Specific Plan and Downtown Neighborhoods Community Plan (collectively, the Fresno Downtown Plans). After the original draft TIS for the Downtown Plans was completed in 2012, the City of Fresno adopted an update to its General Plan and certified the corresponding MEIR, and Fresno COG adopted a new RTP-SCS. Both of these planning efforts involved the development of a corresponding TDF model. The purpose of this evaluation is to compare the outputs for these two TDF models in the project study area, and determine their potential differences as it relates to developing traffic forecasts.

METHODOLOGY

This evaluation uses the buildout scenario for the Fresno GP MEIR TDF model and the horizon year scenario for the Fresno COG RTP-SCS TDF models. To quantify the difference in model outputs, this

evaluation compares the AM peak hour, PM peak hour, and daily traffic assignments from both models for various key roadways in the project study area. These key roadways include the freeways that encircle Downtown Fresno—State Route 99 (SR 99), State Route 41 (SR 41), and State Route 180 (SR 180)—as well as the following major local streets and one-way couplets in the downtown area:

1. Fresno Street
2. Tulare Street
3. Ventura Street
4. Belmont Avenue
5. Van Ness Avenue
6. H Street
7. Blackstone Avenue / Abby Street
8. Van Ness Avenue / Fulton Street

These local streets represent the primary roadways that serve traffic moving through Downtown Fresno.

Figure 1 provides a screenshot of each of the TDF model networks. As shown in these screenshots, both models represent freeways as two one-way link pairs, while local streets are coded as a single link. Therefore, this evaluation compares the freeway traffic volumes by direction, while local streets are evaluated both by direction and two-way total traffic.

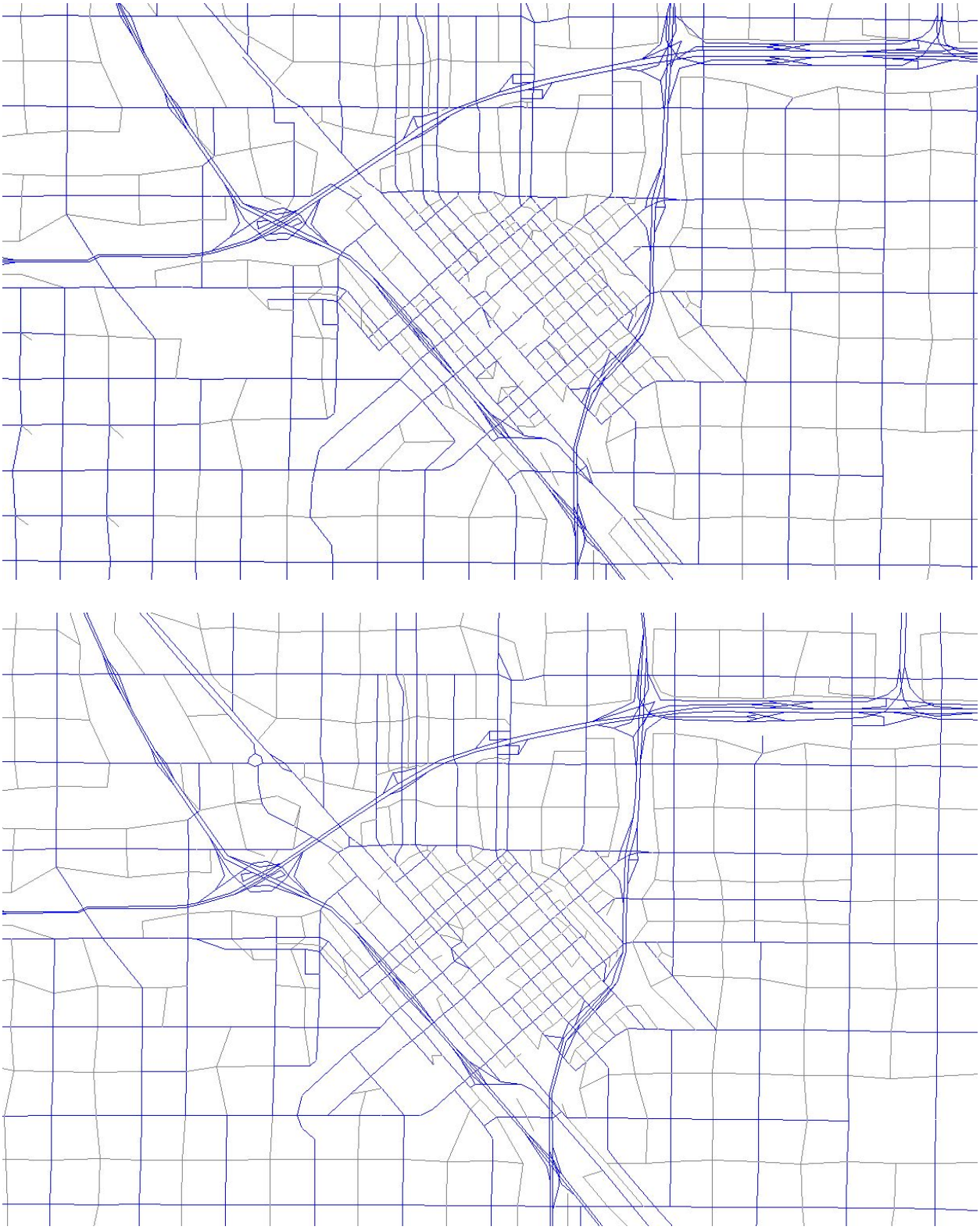


Figure 1: Screen shots of the GP MEIR TDF Model (Top) and RTP-SCS TDF Model (Bottom)

To further examine the difference between the two TDF model platforms, this evaluation compares the aggregate inputs for population, households, and employment.

RESULTS

Appendix A provides the traffic volume comparison analysis results for the key roadways in the study area. Overall, this data shows that the GP MEIR model generally forecasts higher traffic volumes than the RTP-SCS model. Tables 1 and 2 below summarize the percent difference in traffic volumes between the two model platforms. Positive differences indicate the GP MEIR model forecasts higher traffic volumes than the RTP-SCS model, while negative values indicate the RTP-SCS model produces higher traffic forecasts.

Freeways

To summarize the data in Appendix A, Table 1 presents the range (minimum and maximum) and average percent difference in traffic volumes for each freeway facility within the study area. While the RTP-SCS TDF model produces slightly higher traffic forecasts for a few segments of SR 41 and SR 99 during the AM peak hour (as indicated by the negative minimum values), the GP MEIR TDF model generally produces higher traffic forecasts overall on both freeways, as shown by the positive average percent differences. Table 1 also shows that SR 180 has greater percent difference in traffic volume than the other freeways.

TABLE 1
TDF MODEL TRAFFIC FORECAST COMPARISON: FREEWAY SEGMENTS

Freeway	AM Peak Hour			PM Peak Hour			Daily		
	Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum	Average
SR 41	-9 %	32 %	6 %	11 %	41 %	23 %	15 %	36 %	22 %
SR 99	-19 %	23 %	6 %	12 %	27 %	19 %	12 %	30 %	22 %
SR 180	50 %	67 %	58 %	37 %	57 %	47 %	36 %	52 %	43 %

Notes: Each freeway facility (i.e., SR 41, SR 99, and SR 180) includes multiple study segments, as presented in Appendix A. The minimum, maximum, and average presented above is a summary of the all the segments presented in Appendix A by freeway facility.
A positive percent difference indicates the Fresno GP MEIR TDF model generates higher traffic forecasts. A negative percent difference indicates the RTP-SCS TDF model produces higher traffic forecasts.
Source: Fehr & Peers, 2015.

Local Streets

Table 2 shows that the two models have more variation in traffic volumes for local streets than the freeway facilities. However, the GP MEIR TDF model continues to produce higher traffic forecasts on average than the RTP-SCS TDF model, as shown the mostly positive average percent differences. Table 2

presents the range (minimum and maximum) and averages of aggregated roadway forecast volumes for each study roadway.

TABLE 2
TDF MODEL TRAFFIC FORECAST COMPARISON: LOCAL STREETS

Street	AM Peak Hour			PM Peak Hour			Daily		
	Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum	Average
Fresno Street	11 %	57 %	35 %	-6 %	64 %	39 %	-7 %	60 %	30 %
Tulare Street	-7 %	60 %	30 %	-51 %	57 %	25 %	-146 %	55 %	9 %
Ventura Street	-49 %	34 %	-12 %	-17 %	44 %	8 %	-45 %	17 %	-12 %
Belmont Avenue	-60 %	64 %	11 %	-122 %	57 %	-6 %	-245 %	47 %	-45 %
Van Ness Avenue	-263 %	53 %	-4 %	-21 %	69 %	47 %	-102 %	64 %	17 %
H Street	-92 %	40 %	1 %	-7 %	67 %	34 %	-12 %	14 %	1 %
Blackstone Ave./ Abby Street	-56%	-20%	-36%	-13%	14%	5%	-26%	-6%	-15%
Van Ness Avenue/ Fulton Street	-3%	47%	30%	16%	53%	35%	-106%	37%	-13%

Notes: Each roadway segment includes multiple study segments, as presented in Appendix A. The minimum, maximum, and average presented above is a summary of the all the segments presented in Appendix A by roadway.
A positive percent difference indicates the Fresno GP MEIR TDF model generates higher traffic forecasts. A negative percent difference indicates the RTP-SCS TDF model produces higher traffic forecasts.
Source: Fehr & Peers, 2015.

Land Use Inputs

In addition to comparing the TDF model traffic forecasts, this evaluation compared the overall land use inputs of the GP MEIR TDF model and the RTP-SCS TDF model. Both models cover the same geographic region (Fresno County), and use housing units for residential land use inputs and employment for non-residential land use inputs. Further, both models estimate population based on the number of housing units and household size. Table 3 presents the total overall land use inputs for each of the models and the percent difference between the two. As shown in Table 3, the GP MEIR model has more persons, housing units, and employees, which explains the generally higher traffic estimates.

This difference in overall land use inputs are likely due to revised population and employment projections developed for the RTP-SCS and a later "buildout year" for the Fresno GP MEIR model. The revised population and employment projections predicted a slower growth in population and employment than earlier projections, in part due to the economic conditions of 2008-2012. The Fresno COG RTP-SCS has a horizon year of 2040, while the Fresno GP MEIR TDF model analyzes "buildout" of the Fresno General Plan, which is not anticipated to occur until 2050 or beyond.

TABLE 3:
AGGREGATE LAND USE INPUTS

Input	GP MEIR Model[1]	RTP-SCS Model[2]	Percent Difference
Persons	1,516,499	1,248,674	17.7%
Housing Units	502,755	423,978	15.7%
Employees	621,823	427,728	31.2%

Source: [1]Fehr & Peers, 2014; [2]Fresno Council of Governments, 2014.

CONCLUSIONS

Generally, the MEIR TDF model outputs result in greater volumes on freeways and local streets. This is in part due to the higher overall growth anticipated in the GP MEIR model, and its later horizon year.

Since the GP MEIR TDF model generates higher traffic forecasts, using the GP MEIR TDF model is unlikely to underestimate the cumulative traffic levels when compared to the RTP-SCS TDF model. Furthermore, the proposed Fresno Downtown Plans are consistent with the Fresno General Plan. Therefore, Fehr & Peers recommends that the transportation analysis use the GP MEIR TDF model for the cumulative analysis of the Fresno Downtown Plans TIS update. This approach would be consistent with CEQA Guidelines §15130(b)(1)(B), which allows the discussion of cumulative impacts to use projections contained in an adopted general plan.

Fehr Peers
Forecasted 2035 Volumes on State Route 99

AM PEAK HOUR						
	Northbound			Southbound		
Segment	**GP MEIR**	**SCS**	**% Delta**	**GP MEIR**	**SCS**	**% Delta**
North of Shaw Avenue	5,430	3,661	32.6%	5,740	3,657	36.3%
South of Clinton Avenue	5,733	5,119	10.7%	6,106	4,775	21.8%
North of W Olive Avenue	6,182	5,422	12.3%	6,431	5,324	17.2%
Between Olive Avenue and Belmont Avenue	5,988	5,464	8.8%	6,582	5,484	16.7%
Between Belmont Avenue and SR-180	6,205	5,492	11.5%	7,223	5,599	22.5%
Between SR-180 and Stanislaus Street	6,217	5,578	10.3%	6,731	5,445	19.1%
Between Stanisalaus Street and Tuolumne Street	5,623	5,488	2.4%	6,029	5,375	10.8%
Between Tuolumne Street and Tulare Street	4,756	5,099	-7.2%	5,407	5,083	6.0%
Between Tulare Street and Ventura Street	5,967	5,630	5.6%	6,213	5,628	9.4%
Between Ventura Street and SR-41	5,044	5,972	-18.4%	5,610	5,501	1.9%
South of SR-41	7,297	7,474	-2.4%	7,280	8,392	-15.3%

PM PEAK HOUR						
	Northbound			Southbound		
Segment	**GP MEIR**	**SCS**	**% Delta**	**GP MEIR**	**SCS**	**% Delta**
North of Shaw Avenue	6,037	3,080	49.0%	5,949	2,772	53.4%
South of Clinton Avenue	6,108	4,676	23.4%	6,032	4,415	26.8%
North of W Olive Avenue	6,427	5,546	13.7%	6,324	4,879	22.8%
Between Olive Avenue and Belmont Avenue	6,474	5,445	15.9%	6,338	5,058	20.2%
Between Belmont Avenue and SR-180	6,466	5,607	13.3%	6,983	5,248	24.8%
Between SR-180 and Stanislaus Street	6,913	5,462	21.0%	6,384	4,689	26.6%
Between Stanisalaus Street and Tuolumne Street	6,169	5,076	17.7%	5,849	4,597	21.4%
Between Tuolumne Street and Tulare Street	5,500	4,457	19.0%	5,116	4,169	18.5%
Between Tulare Street and Ventura Street	6,428	5,358	16.6%	6,098	5,141	15.7%
Between Ventura Street and SR-41	6,192	4,696	24.2%	5,246	4,632	11.7%
South of SR-41	7,588	6,252	17.6%	7,454	6,347	14.9%

DAILY						
	Northbound			Southbound		
Segment	**GP MEIR**	**SCS**	**% Delta**	**GP MEIR**	**SCS**	**% Delta**
North of Shaw Avenue	64,601	38,403	40.6%	63,998	39,083	38.9%
South of Clinton Avenue	87,603	65,916	24.8%	87,603	63,570	27.4%
North of W Olive Avenue	97,547	72,644	25.5%	95,892	71,016	25.9%
Between Olive Avenue and Belmont Avenue	96,962	72,423	25.3%	97,020	73,336	24.4%
Between Belmont Avenue and SR-180	102,037	74,556	26.9%	104,051	75,938	27.0%
Between SR-180 and Stanislaus Street	98,940	73,864	25.3%	96,852	67,455	30.4%
Between Stanisalaus Street and Tuolumne Street	88,541	70,737	20.1%	85,410	66,015	22.7%
Between Tuolumne Street and Tulare Street	71,864	62,955	12.4%	70,814	59,517	16.0%
Between Tulare Street and Ventura Street	88,010	72,734	17.4%	85,783	71,047	17.2%
Between Ventura Street and SR-41	76,658	62,129	19.0%	73,109	58,912	19.4%
South of SR-41	103,589	82,360	20.5%	102,926	84,516	17.9%

Fehr Peers
Forecasted 2035 Volumes on State Route 41

AM PEAK HOUR						
	Northbound			Southbound		
Segment	**GP MEIR**	**SCS**	**% Delta**	**GP MEIR**	**SCS**	**% Delta**
North of Herndon Avenue	3,710	4,446	-20%	6,331	4,685	26%
South of Shaw Avenue	6,701	6,351	5%	6,081	6,291	-3%
South of Shields Avenue	6,165	6,889	-12%	6,192	6,245	-1%
North of SR-180	7,133	7,277	-2%	7,259	6,423	12%
Between SR-180 and Divisadero Street	6,482	6,414	1%	8,324	6,727	19%
Between Divisadero Street and Ventura Avenue	5,383	5,842	-9%	6,892	6,313	8%
Between Ventura Avenue and O Street	5,383	5,842	-9%	6,042	5,464	10%
Between O St and Van Ness Avenue	4,832	4,524	6%	4,911	5,202	-6%
Between Van Ness Avenue and SR-99	5,604	4,739	15%	5,507	5,508	0%
South of SR-99	3,351	3,236	3%	3,837	2,617	32%

PM PEAK HOUR						
	Northbound			Southbound		
Segment	**GP MEIR**	**SCS**	**% Delta**	**GP MEIR**	**SCS**	**% Delta**
North of Herndon Avenue	7,464	4,026	46%	4,432	2,382	46%
South of Shaw Avenue	7,206	6,233	14%	6,201	5,646	9%
South of Shields Avenue	6,421	6,527	-2%	6,250	5,804	7%
North of SR-180	7,835	6,960	11%	7,169	6,237	13%
Between SR-180 and Divisadero St	8,722	6,538	25%	7,478	5,936	21%
Between Divisadero St and Ventura Avenue	6,360	5,288	17%	6,279	5,160	18%
Between Ventura Avenue and O Street	6,360	5,288	17%	5,675	4,231	25%
Between O St and Van Ness Avenue	5,437	4,502	17%	4,851	3,715	23%
Between Van Ness Avenue and SR-99	5,837	4,162	29%	5,991	4,054	32%
South of SR-99	4,442	2,606	41%	3,783	2,339	38%

DAILY						
	Northbound			Southbound		
Segment	**GP MEIR**	**SCS**	**% Delta**	**GP MEIR**	**SCS**	**% Delta**
North of Herndon Avenue	71,381	40,621	43%	65,108	36,787	43%
South of Shaw Avenue	103,632	83,207	20%	99,301	80,226	19%
South of Shields Avenue	97,386	82,726	15%	96,841	78,424	19%
North of SR-180	108,389	88,981	18%	102,095	83,252	18%
Between SR-180 and Divisadero St	100,685	77,696	23%	103,733	82,613	20%
Between Divisadero St and Ventura Avenue	76,935	65,545	15%	83,583	69,875	16%
Between Ventura Avenue and O Street	76,935	65,545	15%	76,434	55,015	28%
Between O St and Van Ness Avenue	67,082	54,696	18%	63,992	50,303	21%
Between Van Ness Avenue and SR-99	73,468	53,238	28%	75,111	54,633	27%
South of SR-99	46,537	33,006	29%	45,294	29,029	36%

Fehr Peers

Forecasted 2035 Volumes on State Route 180

AM PEAK HOUR						
	Westbound			Eastbound		
Segment	**GP MEIR**	**SCS**	**% Delta**	**GP MEIR**	**SCS**	**% Delta**
East of SR-41	7,016	3,251	54%	6,253	2,621	58%
Between SR-41 and Blackstone Ave	6,139	2,505	59%	7,028	3,488	50%
Between Blackstone Ave and N Fulton St	6,031	2,494	59%	7,104	3,000	58%
Between N Fulton St and SR-99	5,381	1,923	64%	7,632	2,548	67%
West of SR-99	3,598	1,742	52%	5,344	2,126	60%

PM PEAK HOUR						
	Westbound			Eastbound		
Segment	**GP MEIR**	**SCS**	**% Delta**	**GP MEIR**	**SCS**	**% Delta**
East of SR-41	6,569	4,150	37%	7,016	4,370	38%
Betweeen SR-41 and Abby St	6,987	3,712	47%	7,651	4,281	44%
Between Blackstone Ave and N Fulton St	7,141	3,926	45%	7,204	3,644	49%
Between N Fulton St and SR-99	7,432	3,653	51%	7,100	3,054	57%
West of SR-99	5,956	2,996	50%	4,577	1,984	57%

DAILY						
	Westbound			Eastbound		
Segment	**GP MEIR**	**SCS**	**% Delta**	**GP MEIR**	**SCS**	**% Delta**
East of SR-41	86,995	54,424	37%	84,846	54,056	36%
Betweeen SR-41 and Abby St	82,907	44,305	47%	91,864	57,685	37%
Between Blackstone Ave and N Fulton St	83,485	44,271	47%	86,566	50,495	42%
Between N Fulton St and SR-99	78,619	38,056	52%	84,002	45,385	46%
West of SR-99	50,260	29,838	41%	51,541	29,376	43%

Fehr Peers
Forecasted 2035 Volumes on Local Streets

Fresno Street - AM Peak Hour									
	Eastbound			Westbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
North of Olive Avenue	372	321	14%	603	543	10%	975	864	11%
Under SR-180	280	358	-28%	981	595	39%	1,261	953	24%
South of Divisadero Street	444	337	24%	1,251	396	68%	1,695	733	57%
South of Van Ness Avenue	707	412	42%	989	326	67%	1,696	738	56%
North of SR-99	1,445	778	46%	1,120	744	34%	2,565	1,522	41%
North of California Avenue	917	584	36%	330	374	-13%	1,247	958	23%

Fresno Street - PM Peak Hour									
	Eastbound			Westbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
North of Olive Avenue	885	357	60%	546	330	40%	1,626	988	39%
Under SR-180	1,014	342	66%	482	413	14%	1,776	1,120	37%
South of Divisadero Street	1,259	437	65%	763	383	50%	1,806	768	57%
South of Van Ness Avenue	1,007	381	62%	806	381	53%	1,478	537	64%
North of SR-99	1,110	879	21%	1,650	1,047	37%	781	430	45%
North of California Avenue	594	407	31%	761	514	32%	152	161	-6%

Fresno Street - Daily Traffic									
	Eastbound			Westbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
North of Olive Avenue	3,860	4,350	-13%	3,796	3,844	-1%	7,656	8,194	-7%
Under SR-180	4,383	4,551	-4%	5,690	5,319	7%	10,073	9,870	2%
South of Divisadero Street	8,723	4,074	53%	10,040	5,006	50%	18,763	9,080	52%
South of Van Ness Avenue	11,453	4,983	56%	12,025	4,363	64%	23,478	9,346	60%
North of SR-99	20,556	12,215	41%	23,360	12,287	47%	43,916	24,502	44%
North of California Avenue	9,249	7,082	23%	8,094	5,039	38%	17,343	12,121	30%

Tulare Street - AM Peak Hour									
	Eastbound			Westbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
West of Cedar Avenue	695	439	37%	931	549	41%	1,626	988	39%
East of First Street	702	510	27%	1,074	610	43%	1,776	1,120	37%
North of P Street	593	300	49%	1,213	468	61%	1,806	768	57%
South of Van Ness Avenue	653	225	66%	825	312	62%	1,478	537	64%
Under SR-99	579	234	60%	202	196	3%	781	430	45%
North of California Avenue	146	90	38%	6	71	-1083%	152	161	-6%

Tulare Street - PM Peak Hour									
	Eastbound			Westbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
West of Cedar Avenue	882	558	37%	958	654	32%	1,840	1,212	34%
East of First Street	1,018	653	36%	1,010	748	26%	2,028	1,401	31%
North of P Street	1,324	530	60%	810	510	37%	2,134	1,040	51%
South of Van Ness Avenue	909	262	71%	702	435	38%	1,611	697	57%
Under SR-99	254	175	31%	622	432	31%	876	607	31%
North of California Avenue	12	69	-475%	129	144	-12%	141	213	-51%

Fehr Peers
Forecasted 2035 Volumes on Local Streets

Tulare Street - Daily Traffic									
	Eastbound			Westbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
West of Cedar Avenue	9,664	7,146	26%	10,932	8,312	24%	20,596	15,458	25%
East of First Street	11,053	8,425	24%	12,295	9,525	23%	23,348	17,950	23%
North of P Street	13,000	5,325	59%	13,098	7,615	42%	26,098	12,940	50%
South of Van Ness Avenue	9,225	3,160	66%	8,773	4,924	44%	17,998	8,084	55%
Under SR-99	4,753	2,372	50%	5,170	2,924	43%	9,923	5,296	47%
North of California Avenue	421	968	-130%	463	1,211	-162%	884	2,179	-146%

Ventura Street - AM Peak Hour									
	Eastbound			Westbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
West of Cedar Avenue	420	411	2%	882	446	49%	1,302	857	34%
East of SR-41	530	797	-50%	1,460	946	35%	1,990	1,743	12%
South of Van Ness Avenue	677	1,211	-79%	1,180	1,388	-18%	1,857	2,599	-40%
North of SR-99	1,186	1,500	-26%	922	1,634	-77%	2,108	3,134	-49%
East of M.L. King Jr. Blvd	880	677	23%	323	713	-121%	1,203	1,390	-16%

Ventura Street - PM Peak Hour									
	Eastbound			Westbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
West of Cedar Avenue	956	492	49%	694	424	39%	1,650	916	44%
East of SR-41	1,494	935	37%	859	751	13%	2,353	1,686	28%
South of Van Ness Avenue	1,069	907	15%	1,187	1,395	-18%	2,256	2,302	-2%
North of SR-99	937	1,165	-24%	1,329	1,408	-6%	2,266	2,573	-14%
East of M.L. King Jr. Blvd	378	737	-95%	1,061	948	11%	1,439	1,685	-17%

Ventura Street - Daily Traffic									
	Eastbound			Westbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
West of Cedar Avenue	6,674	5,733	14%	7,239	5,853	19%	13,913	11,586	17%
East of SR-41	11,279	10,554	6%	11,689	10,615	9%	22,968	21,169	8%
South of Van Ness Avenue	11,073	13,698	-24%	15,379	18,989	-23%	26,452	32,687	-24%
North of SR-99	14,521	16,086	-11%	15,836	19,294	-22%	30,357	35,380	-17%
East of M.L. King Jr. Blvd	7,283	10,022	-38%	7,920	12,071	-52%	15,203	22,093	-45%

Belmont Avenue - AM Peak Hour									
	Eastbound			Westbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
West of Marks Avenue	1,378	445	68%	304	166	45%	1,682	611	64%
West of SR-99	1,051	345	67%	349	245	30%	1,400	590	58%
East of SR-99	825	260	68%	547	248	55%	1,372	508	63%
West of Palm Avenue	502	774	-54%	744	895	-20%	1,246	1,669	-34%
Under SR-180	578	544	6%	137	602	-339%	715	1,146	-60%
Under SR-41	302	445	-47%	701	755	-8%	1,003	1,200	-20%
West of Cedar Avenue	538	404	25%	543	640	-18%	1,081	1,044	3%

Fehr Peers

Forecasted 2035 Volumes on Local Streets

Belmont Avenue - PM Peak Hour									
	Eastbound			Westbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
West of Marks Avenue	576	245	57%	1,212	524	57%	1,788	769	57%
West of SR-99	740	412	44%	729	528	28%	1,469	940	36%
East of SR-99	411	258	37%	1,052	402	62%	1,463	660	55%
West of Palm Avenue	747	801	-7%	681	1,191	-75%	1,428	1,992	-39%
Under SR-180	320	600	-88%	378	948	-151%	698	1,548	-122%
Under SR-41	678	639	6%	565	882	-56%	1,243	1,521	-22%
West of Cedar Avenue	568	525	8%	599	689	-15%	1,167	1,214	-4%

Belmont Avenue - Daily Traffic									
	Eastbound			Westbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
West of Marks Avenue	6,938	4,587	34%	7,725	4,649	40%	14,663	9,236	37%
West of SR-99	8,745	6,504	26%	8,028	6,092	24%	16,773	12,596	25%
East of SR-99	7,756	4,384	43%	8,995	4,441	51%	16,751	8,825	47%
West of Palm Avenue	6,018	10,626	-77%	6,200	13,064	-111%	12,218	23,690	-94%
Under SR-180	3,193	8,343	-161%	2,130	10,029	-371%	5,323	18,372	-245%
Under SR-41	4,962	7,295	-47%	6,014	11,063	-84%	10,976	18,358	-67%
West of Cedar Avenue	5,923	6,241	-5%	6,407	8,632	-35%	12,330	14,873	-21%

Van Ness Avenue - AM Peak Hour									
	Northbound			Southbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
North of Olive Avenue	365	299	18%	0	0	-	365	299	18%
Under SR-180	816	435	47%	0	0	-	816	435	47%
South of Divisadero Street	519	278	46%	443	130	71%	962	408	58%
North of Fresno Street	516	284	45%	574	160	72%	1,090	444	59%
North of Ventura Avenue	650	243	63%	305	153	50%	955	396	59%
North of California Avenue	119	702	-490%	108	121	-12%	227	823	-263%

Van Ness Avenue - PM Peak Hour									
	Northbound			Southbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
North of Olive Avenue	842	306	64%	0	0	-	842	306	64%
Under SR-180	1,326	406	69%	0	0	-	1,326	406	69%
South of Divisadero Street	828	440	47%	308	141	54%	1,136	581	49%
North of Fresno Street	587	329	44%	608	178	71%	1,195	507	58%
North of Ventura Avenue	616	193	69%	592	268	55%	1,208	461	62%
North of California Avenue	100	254	-154%	347	286	18%	447	540	-21%

Van Ness Avenue -Daily Traffic									
	Northbound			Southbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
North of Olive Avenue	4,789	4,981	-4%	0	0	-	4,789	4,981	-4%
Under SR-180	9,668	6,578	32%	0	0	-	9,668	6,578	32%
South of Divisadero Street	9,639	4,961	49%	4,651	1,906	59%	14,290	6,867	52%
North of Fresno Street	7,850	3,982	49%	7,594	1,854	76%	15,444	5,836	62%
North of Ventura Avenue	9,262	2,951	68%	5,369	2,344	56%	14,631	5,295	64%
North of California Avenue	783	3,262	-317%	1,934	2,215	-15%	2,717	5,477	-102%

Fehr Peers
Forecasted 2035 Volumes on Local Streets

H Street - AM Peak Hour									
	Northbound			Southbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
North of Olive Avenue	538	1,646	-206%	741	809	-9%	1,279	2,455	-92%
Under SR-180	896	1,144	-28%	1,420	1,290	9%	2,316	2,434	-5%
South of Divisadero Street	370	354	4%	732	450	39%	1,102	804	27%
North of Fresno Street	474	308	35%	512	283	45%	986	591	40%
North of Ventura Avenue	605	217	64%	329	369	-12%	934	586	37%

H Street - PM Peak Hour									
	Northbound			Southbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
North of Olive Avenue	764	756	1%	637	741	-16%	1,401	1,497	-7%
Under SR-180	1,560	1,253	20%	1,005	1,328	-32%	2,565	2,581	-1%
South of Divisadero Street	759	370	51%	462	239	48%	1,221	609	50%
North of Fresno Street	591	244	59%	573	144	75%	1,164	388	67%
North of Ventura Avenue	489	192	61%	601	220	63%	1,090	412	62%

H Street - Daily Traffic									
	Northbound			Southbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
North of Olive Avenue	=	1,147	32%	1,458	1,564	-7%	3,143	2,711	14%
Under SR-180	1,232	1,208	2%	1,419	1,356	4%	2,651	2,564	3%
South of Divisadero Street	1,348	1,335	1%	702	971	-38%	2,050	2,306	-12%
North of Fresno Street	0	0	0%	0	0	0%	0	0	0%
North of Ventura Avenue	0	0	0%	0	0	0%	0	0	0%

Blackstone Avenue / Abby Street - AM Peak Hour									
	Northbound			Southbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
North of Olive Avenue	1,302	1,400	-8%	869	958	-10%	1,374	1,420	-3%
Under SR-180	1,195	1,414	-18%	796	313	61%	1,161	612	47%
North of Divisadero Street	823	1,491	-81%	1,231	1,001	19%	2,047	1,436	30%

Blackstone Avenue / Abby Street - PM Peak Hour									
	Northbound			Southbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
North of Olive Avenue	1,685	1,147	32%	1,458	1,564	-7%	3,143	2,711	14%
Under SR-180	1,232	1,208	2%	1,419	1,356	4%	2,651	2,564	3%
North of Divisadero Street	1,348	1,335	1%	702	971	-38%	2,050	2,306	-12%

Blackstone Avenue / Abby Street - Daily Traffic									
	Northbound			Southbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
North of Olive Avenue	13,086	16,140	-23%	13,484	17,428	-29%	26,570	33,568	-26%
Under SR-180	14,910	14,998	-1%	15,892	17,613	-11%	30,802	32,611	-6%
North of Divisadero Street	14,045	15,293	-9%	10,619	12,330	-16%	24,664	27,623	-12%

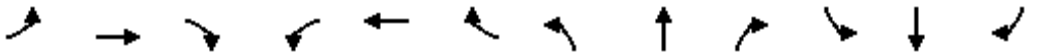
Fehr Peers
Forecasted 2035 Volumes on Local Streets

Van Ness Avenue / Fulton Street - AM Peak Hour									
	Northbound			Southbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
South of Shields Avenue	1,062	462	9%	869	958	-10%	1,374	1,420	-3%
North of Olive Avenue	365	299	18%	796	313	61%	1,161	612	47%
Under SR-180	816	435	47%	1,231	1,001	19%	2,047	1,436	30%
North of Divisadero Street	365	392	-7%	1,329	531	60%	1,694	923	46%

Van Ness Avenue / Fulton Street - PM Peak Hour									
	Northbound			Southbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
South of Shields Avenue	1,062	776	27%	869	958	-10%	1,374	1,420	-3%
North of Olive Avenue	842	306	64%	796	313	61%	1,161	612	47%
Under SR-180	1,326	406	69%	1,231	1,001	19%	2,047	1,436	30%
North of Divisadero Street	1,231	479	61%	1,329	531	60%	1,694	923	46%

Van Ness Avenue / Fulton Street - Daily Traffic									
	Northbound			Southbound					
	GP MEIR	SCS	% Delta	GP MEIR	SCS	% Delta	GP MEIR Total	SCS Total	%Delta
South of Shields Avenue	5,922	7,748	-31%	4,311	13,368	-210%	10,233	21,116	-106%
North of Olive Avenue	4,789	4,981	-4%	6,988	6,811	3%	11,777	11,792	0%
Under SR-180	9,668	6,578	32%	15,228	13,592	11%	24,896	20,170	19%
North of Divisadero Street	9,822	6,047	38%	13,032	8,360	36%	22,854	14,407	37%

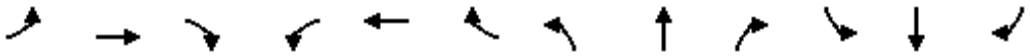
APPENDIX E-1:
TECHNICAL CALCULATIONS –
EXISTING PLUS PROJECT CONDITIONS
INTERSECTION LOS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	190	360	200	510	0	10	0	10	140	10	40
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
Lane Util. Factor		0.95			0.95			1.00			1.00	1.00
Frt		0.90			1.00			0.93			1.00	0.85
Flt Protected		1.00			0.99			0.98			0.96	1.00
Satd. Flow (prot)		2825			3159			1571			1766	1429
Flt Permitted		1.00			0.63			0.84			0.72	1.00
Satd. Flow (perm)		2825			2023			1357			1323	1429
Peak-hour factor, PHF	0.74	0.74	0.74	0.95	0.95	0.95	0.59	0.59	0.59	0.79	0.79	0.79
Adj. Flow (vph)	0	257	486	211	537	0	17	0	17	177	13	51
RTOR Reduction (vph)	0	239	0	0	0	0	0	16	0	0	0	37
Lane Group Flow (vph)	0	504	0	0	748	0	0	18	0	0	190	14
Heavy Vehicles (%)	0%	10%	18%	17%	11%	0%	0%	0%	20%	3%	0%	13%
Turn Type		NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases				8			2			6		6
Actuated Green, G (s)		19.7			19.7			11.0			11.0	11.0
Effective Green, g (s)		19.7			19.7			11.0			11.0	11.0
Actuated g/C Ratio		0.51			0.51			0.28			0.28	0.28
Clearance Time (s)		4.0			4.0			4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)		1438			1029			385			376	406
v/s Ratio Prot		0.18										
v/s Ratio Perm					c0.37			0.01			c0.14	0.01
v/c Ratio		0.35			0.73			0.05			0.51	0.04
Uniform Delay, d1		5.7			7.4			10.0			11.6	10.0
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		0.1			2.6			0.1			1.1	0.0
Delay (s)		5.8			10.0			10.1			12.6	10.1
Level of Service		A			A			B			B	B
Approach Delay (s)		5.8			10.0			10.1			12.1	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	38.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	300	0	0	320	130	390	0	530	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0	4.0			
Lane Util. Factor		0.95			0.95			1.00	1.00			
Frt		1.00			0.96			1.00	0.85			
Flt Protected		0.99			1.00			0.95	1.00			
Satd. Flow (prot)		3316			2977			1570	1442			
Flt Permitted		0.86			1.00			0.95	1.00			
Satd. Flow (perm)		2874			2977			1570	1442			
Peak-hour factor, PHF	0.77	0.77	0.77	0.95	0.95	0.95	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	52	390	0	0	337	137	433	0	589	0	0	0
RTOR Reduction (vph)	0	0	0	0	82	0	0	0	152	0	0	0
Lane Group Flow (vph)	0	442	0	0	392	0	0	433	437	0	0	0
Heavy Vehicles (%)	10%	8%	0%	0%	14%	21%	15%	0%	12%	0%	0%	0%
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Actuated Green, G (s)		11.9			11.9			18.1	18.1			
Effective Green, g (s)		11.9			11.9			18.1	18.1			
Actuated g/C Ratio		0.31			0.31			0.48	0.48			
Clearance Time (s)		4.0			4.0			4.0	4.0			
Vehicle Extension (s)		3.0			3.0			3.0	3.0			
Lane Grp Cap (vph)		900			932			747	686			
v/s Ratio Prot					0.13							
v/s Ratio Perm		c0.15						0.28	c0.30			
v/c Ratio		0.49			0.42			0.58	0.64			
Uniform Delay, d1		10.6			10.3			7.2	7.5			
Progression Factor		1.00			1.00			1.00	1.00			
Incremental Delay, d2		0.4			0.3			1.1	1.9			
Delay (s)		11.0			10.6			8.3	9.4			
Level of Service		B			B			A	A			
Approach Delay (s)		11.0			10.6			8.9			0.0	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	38.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

MOVEMENT SUMMARY

Site: 3_Belmont_Circle_AM

Belmont Circle
Baseline Plus Project Conditions
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Wesley Ave											
3L	L	43	37.3	0.074	4.8	LOS A	0.3	8.6	0.45	0.70	25.4
8T	T	11	29.0	0.074	4.8	LOS A	0.3	8.6	0.45	0.47	28.3
8R	R	11	0.0	0.074	4.8	LOS A	0.3	8.6	0.45	0.39	27.1
Approach		64	29.7	0.074	4.8	LOS A	0.3	8.6	0.45	0.61	26.0
East: Belmont/Thorne Ave											
1L	L	39	0.0	0.330	5.6	LOS A	1.3	33.5	0.24	0.82	28.4
6T	T	347	9.0	0.330	5.6	LOS A	1.3	33.5	0.24	0.38	31.7
6R	R	67	7.0	0.330	5.6	LOS A	1.3	33.5	0.24	0.43	32.8
Approach		452	7.9	0.330	5.6	LOS A	1.3	33.5	0.24	0.42	31.5
North: Golden State Blvd											
7L	L	155	7.7	0.489	8.5	LOS A	2.7	70.5	0.53	0.86	29.5
4T	T	230	12.0	0.489	8.5	LOS A	2.7	70.5	0.53	0.64	32.0
4R	R	180	1.9	0.489	8.5	LOS A	2.7	70.5	0.53	0.64	32.3
Approach		565	7.6	0.489	8.5	LOS A	2.7	70.5	0.53	0.70	31.2
West: Belmont Ave											
5L	L	65	18.5	0.356	7.1	LOS A	1.7	48.3	0.52	0.86	28.8
2T	T	260	11.0	0.356	7.1	LOS A	1.7	48.3	0.52	0.58	30.6
2R	R	50	17.8	0.356	7.1	LOS A	1.7	48.3	0.52	0.57	29.8
Approach		375	13.2	0.356	7.1	LOS A	1.7	48.3	0.52	0.63	30.1
South West: Arthur Ave											
13L	L	15	0.0	0.038	5.7	LOS A	0.2	6.2	0.79	0.73	23.1
18R	R	10	0.0	0.038	5.7	LOS A	0.2	6.2	0.79	0.60	22.7
Approach		26	0.0	0.038	5.7	LOS A	0.2	6.2	0.79	0.68	23.0
All Vehicles		1482	9.9	0.489	7.0	LOS A	2.7	70.5	0.44	0.59	30.5

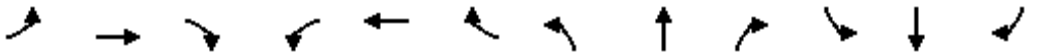
Level of Service (LOS) Method: Delay (HCM 2000).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
HCM Delay Model used. Geometric Delay not included.

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Movement	EBT	EBR	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2	SWL2
Lane Configurations										
Volume (vph)	300	140	250	40	10	70	250	0	20	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.0	4.2	4.2		4.9	4.9	4.9		4.9
Lane Util. Factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Frt	1.00	0.85	1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	1.00	1.00	1.00	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	1863	1583	1863	1583		1770	1863	1583		1770
Flt Permitted	1.00	1.00	1.00	1.00		0.95	1.00	1.00		0.74
Satd. Flow (perm)	1863	1583	1863	1583		1770	1863	1583		1379
Peak-hour factor, PHF	0.72	0.72	0.83	0.83	0.83	0.76	0.76	0.76	0.76	0.67
Adj. Flow (vph)	417	194	301	48	12	92	329	0	26	15
RTOR Reduction (vph)	0	0	0	21	0	0	0	15	0	0
Lane Group Flow (vph)	417	194	301	39	0	92	329	11	0	15
Turn Type	NA	Free	NA	Perm		Perm	NA	Perm		D.Pm
Protected Phases	4		4				2			
Permitted Phases		Free		4		2		2		2
Actuated Green, G (s)	24.0	57.1	24.0	24.0		24.0	24.0	24.0		24.0
Effective Green, g (s)	24.0	57.1	24.0	24.0		24.0	24.0	24.0		24.0
Actuated g/C Ratio	0.42	1.00	0.42	0.42		0.42	0.42	0.42		0.42
Clearance Time (s)	4.2		4.2	4.2		4.9	4.9	4.9		4.9
Lane Grp Cap (vph)	783	1583	783	665		743	783	665		579
v/s Ratio Prot	c0.22		0.16				c0.18			
v/s Ratio Perm		0.12		0.02		0.05		0.01		0.01
v/c Ratio	0.53	0.12	0.38	0.06		0.12	0.42	0.02		0.03
Uniform Delay, d1	12.4	0.0	11.4	9.8		10.1	11.7	9.7		9.7
Progression Factor	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	2.6	0.2	1.4	0.2		0.3	1.7	0.0		0.1
Delay (s)	14.9	0.2	12.9	10.0		10.5	13.3	9.7		9.8
Level of Service	B	A	B	B		B	B	A		A
Approach Delay (s)	10.3		12.4				12.5			
Approach LOS	B		B				B			

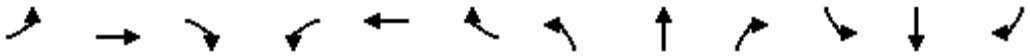
Intersection Summary			
HCM 2000 Control Delay	11.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	57.1	Sum of lost time (s)	9.1
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	220	40	20	150	60	20	220	20	150	550	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9		4.9	4.9		4.1	4.1		4.1	4.1	4.1
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.98		1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	1675		1703	3221		1671	3354		1736	3539	1583
Flt Permitted	0.59	1.00		0.50	1.00		0.32	1.00		0.58	1.00	1.00
Satd. Flow (perm)	1095	1675		900	3221		560	3354		1066	3539	1583
Peak-hour factor, PHF	0.78	0.78	0.78	0.82	0.82	0.82	0.88	0.88	0.88	0.79	0.79	0.79
Adj. Flow (vph)	77	282	51	24	183	73	23	250	23	190	696	152
RTOR Reduction (vph)	0	12	0	0	42	0	0	12	0	0	0	88
Lane Group Flow (vph)	77	321	0	24	214	0	23	261	0	190	696	64
Heavy Vehicles (%)	3%	7%	32%	6%	9%	3%	8%	5%	20%	4%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		2
Actuated Green, G (s)	23.0	23.0		23.0	23.0		23.0	23.0		23.0	23.0	23.0
Effective Green, g (s)	23.0	23.0		23.0	23.0		23.0	23.0		23.0	23.0	23.0
Actuated g/C Ratio	0.42	0.42		0.42	0.42		0.42	0.42		0.42	0.42	0.42
Clearance Time (s)	4.9	4.9		4.9	4.9		4.1	4.1		4.1	4.1	4.1
Lane Grp Cap (vph)	457	700		376	1346		234	1402		445	1479	661
v/s Ratio Prot		c0.19			0.07			0.08			c0.20	
v/s Ratio Perm	0.07			0.03			0.04			0.18		0.04
v/c Ratio	0.17	0.46		0.06	0.16		0.10	0.19		0.43	0.47	0.10
Uniform Delay, d1	10.0	11.5		9.6	10.0		9.7	10.1		11.3	11.6	9.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.8	2.2		0.3	0.3		0.8	0.3		3.0	1.1	0.3
Delay (s)	10.8	13.7		9.9	10.2		10.5	10.4		14.3	12.7	10.0
Level of Service	B	B		A	B		B	B		B	B	A
Approach Delay (s)		13.1			10.2			10.4			12.6	
Approach LOS		B			B			B			B	

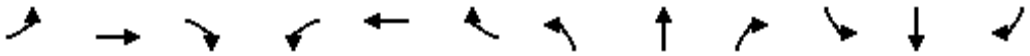
Intersection Summary			
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	280	200	40	290	0	0	0	0	110	560	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.2	4.2	4.2						4.6	
Lane Util. Factor		1.00	1.00	1.00	1.00						0.95	
Frt		1.00	0.85	1.00	1.00						0.99	
Flt Protected		1.00	1.00	0.95	1.00						0.99	
Satd. Flow (prot)		1712	1568	1752	1792						3473	
Flt Permitted		1.00	1.00	0.33	1.00						0.99	
Satd. Flow (perm)		1712	1568	600	1792						3473	
Peak-hour factor, PHF	0.75	0.75	0.75	0.86	0.86	0.86	0.25	0.92	0.92	0.70	0.70	0.70
Adj. Flow (vph)	0	373	267	47	337	0	0	0	0	157	800	43
RTOR Reduction (vph)	0	0	76	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	373	191	47	337	0	0	0	0	0	997	0
Heavy Vehicles (%)	0%	11%	3%	3%	6%	0%	0%	0%	0%	5%	2%	2%
Turn Type		NA	Perm	Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases			4	8						6		
Actuated Green, G (s)		21.4	21.4	21.4	21.4						39.8	
Effective Green, g (s)		21.4	21.4	21.4	21.4						39.8	
Actuated g/C Ratio		0.31	0.31	0.31	0.31						0.57	
Clearance Time (s)		4.2	4.2	4.2	4.2						4.6	
Vehicle Extension (s)		0.2	0.2	0.2	0.2						0.2	
Lane Grp Cap (vph)		523	479	183	547						1974	
v/s Ratio Prot		c0.22			0.19							
v/s Ratio Perm			0.12	0.08							0.29	
v/c Ratio		0.71	0.40	0.26	0.62						0.50	
Uniform Delay, d1		21.6	19.2	18.3	20.8						9.1	
Progression Factor		1.00	1.00	0.71	0.67						1.00	
Incremental Delay, d2		3.8	0.2	0.3	1.4						0.9	
Delay (s)		25.4	19.4	13.2	15.3						10.1	
Level of Service		C	B	B	B						B	
Approach Delay (s)		22.9			15.0			0.0			10.1	
Approach LOS		C			B			A			B	

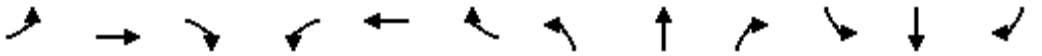
Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



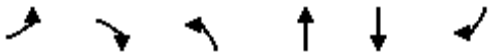
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	370	0	0	210	30	140	510	70	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6			5.6	5.6	5.6	5.6	5.6			
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1752	1776			1776	1509	1770	1845	1538			
Flt Permitted	0.53	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	977	1776			1776	1509	1770	1845	1538			
Peak-hour factor, PHF	0.83	0.83	0.83	0.84	0.84	0.84	0.82	0.82	0.82	0.92	0.92	0.92
Adj. Flow (vph)	36	446	0	0	250	36	171	622	85	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	26	0	0	21	0	0	0
Lane Group Flow (vph)	36	446	0	0	250	10	171	622	64	0	0	0
Heavy Vehicles (%)	3%	7%	0%	0%	7%	7%	2%	3%	5%	0%	0%	0%
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	20.0	20.0			20.0	20.0	38.8	38.8	38.8			
Effective Green, g (s)	20.0	20.0			20.0	20.0	38.8	38.8	38.8			
Actuated g/C Ratio	0.29	0.29			0.29	0.29	0.55	0.55	0.55			
Clearance Time (s)	5.6	5.6			5.6	5.6	5.6	5.6	5.6			
Lane Grp Cap (vph)	279	507			507	431	981	1022	852			
v/s Ratio Prot		c0.25			0.14			c0.34				
v/s Ratio Perm	0.04					0.01	0.10		0.04			
v/c Ratio	0.13	0.88			0.49	0.02	0.17	0.61	0.08			
Uniform Delay, d1	18.5	23.9			20.8	18.0	7.7	10.5	7.3			
Progression Factor	1.08	0.84			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.8	17.1			3.4	0.1	0.4	2.7	0.2			
Delay (s)	20.9	37.1			24.2	18.1	8.1	13.2	7.4			
Level of Service	C	D			C	B	A	B	A			
Approach Delay (s)		35.9			23.4			11.6			0.0	
Approach LOS		D			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	74.2%	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	330	760	10	140	0	0	0	0	10	710	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.0	3.7	4.2						4.9	4.9
Lane Util. Factor		1.00	1.00	1.00	1.00						0.95	1.00
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						1.00	1.00
Satd. Flow (prot)		1863	1583	1770	1863						3537	1583
Flt Permitted		1.00	1.00	0.95	1.00						1.00	1.00
Satd. Flow (perm)		1863	1583	1770	1863						3537	1583
Peak-hour factor, PHF	0.82	0.82	0.82	0.84	0.84	0.84	0.92	0.92	0.92	0.83	0.83	0.83
Adj. Flow (vph)	0	402	927	12	167	0	0	0	0	12	855	205
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	105
Lane Group Flow (vph)	0	402	927	12	167	0	0	0	0	0	867	100
Turn Type		NA	Free	Prot	NA					Perm	NA	Perm
Protected Phases		4		3	8						6	
Permitted Phases			Free							6		6
Actuated Green, G (s)		21.8	70.0	1.2	26.7						34.2	34.2
Effective Green, g (s)		21.8	70.0	1.2	26.7						34.2	34.2
Actuated g/C Ratio		0.31	1.00	0.02	0.38						0.49	0.49
Clearance Time (s)		4.2		3.7	4.2						4.9	4.9
Vehicle Extension (s)		4.9		2.0	4.6						5.2	5.2
Lane Grp Cap (vph)		580	1583	30	710						1728	773
v/s Ratio Prot		0.22		0.01	0.09							
v/s Ratio Perm			c0.59								0.25	0.06
v/c Ratio		0.69	0.59	0.40	0.24						0.50	0.13
Uniform Delay, d1		21.2	0.0	34.0	14.7						12.1	9.8
Progression Factor		1.00	1.00	0.69	0.45						1.00	1.00
Incremental Delay, d2		4.5	1.6	2.5	0.2						1.0	0.3
Delay (s)		25.6	1.6	26.0	6.8						13.2	10.1
Level of Service		C	A	C	A						B	B
Approach Delay (s)		8.9			8.1			0.0			12.6	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



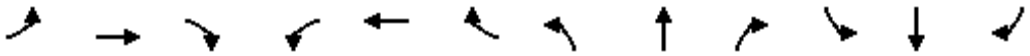
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	340	0	150	650	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2			4.9		
Lane Util. Factor	1.00			0.95		
Frt	1.00			1.00		
Flt Protected	0.95			0.99		
Satd. Flow (prot)	1770			3506		
Flt Permitted	0.95			0.99		
Satd. Flow (perm)	1770			3506		
Peak-hour factor, PHF	0.70	0.70	0.76	0.76	0.92	0.92
Adj. Flow (vph)	486	0	197	855	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	486	0	0	1052	0	0
Turn Type	Prot		Perm	NA		
Protected Phases	4			2		
Permitted Phases			2			
Actuated Green, G (s)	26.2			34.7		
Effective Green, g (s)	26.2			34.7		
Actuated g/C Ratio	0.37			0.50		
Clearance Time (s)	4.2			4.9		
Vehicle Extension (s)	5.7			5.2		
Lane Grp Cap (vph)	662			1737		
v/s Ratio Prot	c0.27					
v/s Ratio Perm				0.30		
v/c Ratio	0.73			0.61		
Uniform Delay, d1	18.9			12.7		
Progression Factor	0.42			1.00		
Incremental Delay, d2	5.0			1.6		
Delay (s)	13.0			14.3		
Level of Service	B			B		
Approach Delay (s)	13.0			14.3	0.0	
Approach LOS	B			B	A	

Intersection Summary			
HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



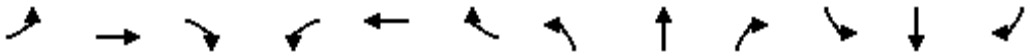
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	170	0	0	0	180	1300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2					4.9
Lane Util. Factor	1.00					0.95
Frt	1.00					1.00
Flt Protected	0.95					0.99
Satd. Flow (prot)	1770					3518
Flt Permitted	0.95					0.99
Satd. Flow (perm)	1770					3518
Peak-hour factor, PHF	0.59	0.59	0.92	0.92	0.82	0.82
Adj. Flow (vph)	288	0	0	0	220	1585
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	288	0	0	0	0	1805
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Actuated Green, G (s)	22.1					60.9
Effective Green, g (s)	22.1					60.9
Actuated g/C Ratio	0.24					0.66
Clearance Time (s)	4.2					4.9
Vehicle Extension (s)	4.8					5.4
Lane Grp Cap (vph)	424					2326
v/s Ratio Prot	c0.16					
v/s Ratio Perm						0.51
v/c Ratio	0.68					0.78
Uniform Delay, d1	31.8					10.9
Progression Factor	1.08					1.00
Incremental Delay, d2	5.3					2.6
Delay (s)	39.7					13.5
Level of Service	D					B
Approach Delay (s)	39.7		0.0			13.5
Approach LOS	D		A			B

Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	92.1	Sum of lost time (s)	9.1
Intersection Capacity Utilization	92.5%	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)	10	170	0	0	160	270	10	510	370	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.2	4.2		4.9	4.9			
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	1863			1863	1583		3536	1583			
Flt Permitted	0.42	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	780	1863			1863	1583		3536	1583			
Peak-hour factor, PHF	0.79	0.79	0.79	0.70	0.70	0.70	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	215	0	0	229	386	11	554	402	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	195	0	0	126	0	0	0
Lane Group Flow (vph)	13	215	0	0	229	191	0	565	276	0	0	0
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	19.8	19.8			19.8	19.8		63.2	63.2			
Effective Green, g (s)	19.8	19.8			19.8	19.8		63.2	63.2			
Actuated g/C Ratio	0.21	0.21			0.21	0.21		0.69	0.69			
Clearance Time (s)	4.2	4.2			4.2	4.2		4.9	4.9			
Vehicle Extension (s)	4.5	4.5			4.8	4.8		3.8	3.8			
Lane Grp Cap (vph)	167	400			400	340		2426	1086			
v/s Ratio Prot		0.12			c0.12							
v/s Ratio Perm	0.02					0.12		0.16	c0.17			
v/c Ratio	0.08	0.54			0.57	0.56		0.23	0.25			
Uniform Delay, d1	28.9	32.1			32.4	32.3		5.4	5.5			
Progression Factor	0.74	0.74			1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.2	1.4			3.0	3.3		0.2	0.6			
Delay (s)	21.6	25.0			35.3	35.5		5.6	6.1			
Level of Service	C	C			D	D		A	A			
Approach Delay (s)		24.8			35.5			5.8			0.0	
Approach LOS		C			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	92.1	Sum of lost time (s)	9.1
Intersection Capacity Utilization	79.5%	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	340	50	120	200	0	0	0	0	180	1120	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2		3.7	4.2						4.9	
Lane Util. Factor		1.00		1.00	1.00						0.95	
Frt		0.98		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1755		1770	1863						3460	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		1755		1770	1863						3460	
Peak-hour factor, PHF	0.90	0.90	0.90	0.77	0.77	0.77	0.92	0.92	0.92	0.79	0.79	0.79
Adj. Flow (vph)	0	378	56	156	260	0	0	0	0	228	1418	203
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	0	0	12	0
Lane Group Flow (vph)	0	427	0	156	260	0	0	0	0	0	1837	0
Heavy Vehicles (%)	2%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases										6		
Actuated Green, G (s)		22.4		10.5	36.6						24.3	
Effective Green, g (s)		22.4		10.5	36.6						24.3	
Actuated g/C Ratio		0.32		0.15	0.52						0.35	
Clearance Time (s)		4.2		3.7	4.2						4.9	
Vehicle Extension (s)		6.8		2.0	6.8						0.2	
Lane Grp Cap (vph)		561		265	974						1201	
v/s Ratio Prot		c0.24		c0.09	0.14							
v/s Ratio Perm											0.53	
v/c Ratio		0.76		0.59	0.27						1.53	
Uniform Delay, d1		21.4		27.7	9.3						22.9	
Progression Factor		1.00		1.74	0.21						1.00	
Incremental Delay, d2		8.2		1.8	0.4						242.4	
Delay (s)		29.6		50.1	2.4						265.3	
Level of Service		C		D	A						F	
Approach Delay (s)		29.6			20.3			0.0			265.3	
Approach LOS		C			C			A			F	

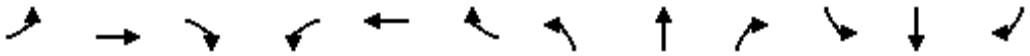
Intersection Summary			
HCM 2000 Control Delay	189.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	130	400	0	0	300	110	30	650	30	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.7	4.2			4.2	4.2		4.9	4.9			
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	1776			1863	1583		3531	1583			
Flt Permitted	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1770	1776			1863	1583		3531	1583			
Peak-hour factor, PHF	0.88	0.88	0.88	0.81	0.81	0.81	0.91	0.91	0.91	0.92	0.92	0.92
Adj. Flow (vph)	148	455	0	0	370	136	33	714	33	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	95	0	0	20	0	0	0
Lane Group Flow (vph)	148	455	0	0	370	41	0	747	13	0	0	0
Heavy Vehicles (%)	2%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases						8	2		2			
Actuated Green, G (s)	8.6	33.2			20.9	20.9		27.7	27.7			
Effective Green, g (s)	8.6	33.2			20.9	20.9		27.7	27.7			
Actuated g/C Ratio	0.12	0.47			0.30	0.30		0.40	0.40			
Clearance Time (s)	3.7	4.2			4.2	4.2		4.9	4.9			
Vehicle Extension (s)	2.0	5.1			5.1	5.1		0.2	0.2			
Lane Grp Cap (vph)	217	842			556	472		1397	626			
v/s Ratio Prot	c0.08	0.26			c0.20							
v/s Ratio Perm						0.03		0.21	0.01			
v/c Ratio	0.68	0.54			0.67	0.09		0.53	0.02			
Uniform Delay, d1	29.4	13.0			21.5	17.7		16.2	12.9			
Progression Factor	0.79	1.72			1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.6	0.1			4.0	0.2		1.5	0.1			
Delay (s)	23.9	22.5			25.5	17.8		17.7	12.9			
Level of Service	C	C			C	B		B	B			
Approach Delay (s)		22.9			23.5			17.5			0.0	
Approach LOS		C			C			B			A	

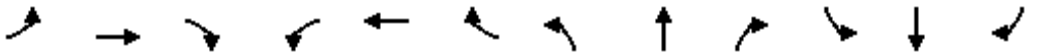
Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



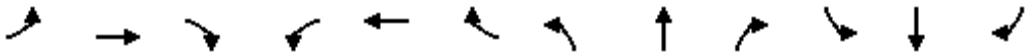
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	290	40	60	360	40	40	220	30	80	430	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1829		1770	1835		1770	1829		1770	1814	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1829		1770	1835		1770	1829		1770	1814	
Peak-hour factor, PHF	0.85	0.85	0.85	0.84	0.84	0.84	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	71	341	47	71	429	48	56	306	42	111	597	125
RTOR Reduction (vph)	0	4	0	0	3	0	0	4	0	0	6	0
Lane Group Flow (vph)	71	384	0	71	474	0	56	344	0	111	716	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	6.7	27.0		6.7	27.0		6.0	29.8		8.4	32.2	
Effective Green, g (s)	6.7	27.0		6.7	27.0		6.0	29.8		8.4	32.2	
Actuated g/C Ratio	0.08	0.30		0.08	0.30		0.07	0.33		0.09	0.36	
Clearance Time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Vehicle Extension (s)	2.0	3.5		2.0	3.5		2.0	3.5		2.0	3.5	
Lane Grp Cap (vph)	133	554		133	556		119	611		166	655	
v/s Ratio Prot	c0.04	0.21		0.04	c0.26		0.03	0.19		c0.06	c0.39	
v/s Ratio Perm												
v/c Ratio	0.53	0.69		0.53	0.85		0.47	0.56		0.67	1.09	
Uniform Delay, d1	39.7	27.4		39.7	29.2		40.0	24.3		39.0	28.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.1	3.9		2.1	12.2		1.1	1.3		7.7	63.1	
Delay (s)	41.8	31.3		41.8	41.4		41.1	25.6		46.7	91.5	
Level of Service	D	C		D	D		D	C		D	F	
Approach Delay (s)		32.9			41.5			27.8			85.5	
Approach LOS		C			D			C			F	

Intersection Summary			
HCM 2000 Control Delay	53.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	89.1	Sum of lost time (s)	17.2
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



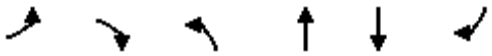
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	230	120	120	230	100	180	370	50	80	560	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9		4.0	4.9	4.9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1778		1770	3476		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1778		1770	3476		1770	3539	1583
Peak-hour factor, PHF	0.83	0.83	0.83	0.92	0.92	0.92	0.80	0.80	0.80	0.78	0.78	0.78
Adj. Flow (vph)	84	277	145	130	250	109	225	462	62	103	718	103
RTOR Reduction (vph)	0	0	98	0	16	0	0	9	0	0	0	75
Lane Group Flow (vph)	84	277	47	130	343	0	225	515	0	103	718	28
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases			4									2
Actuated Green, G (s)	7.3	21.1	21.1	10.7	24.5		14.1	30.0		8.1	24.0	24.0
Effective Green, g (s)	7.3	21.1	21.1	10.7	24.5		14.1	30.0		8.1	24.0	24.0
Actuated g/C Ratio	0.08	0.24	0.24	0.12	0.28		0.16	0.34		0.09	0.27	0.27
Clearance Time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9		4.0	4.9	4.9
Vehicle Extension (s)	2.0	4.5	4.5	2.0	4.5		2.0	5.0		2.0	5.0	5.0
Lane Grp Cap (vph)	147	448	380	215	496		284	1189		163	968	433
v/s Ratio Prot	0.05	0.15		c0.07	c0.19		c0.13	0.15		0.06	c0.20	
v/s Ratio Perm			0.03									0.02
v/c Ratio	0.57	0.62	0.12	0.60	0.69		0.79	0.43		0.63	0.74	0.07
Uniform Delay, d1	38.7	29.7	26.1	36.5	28.2		35.4	22.3		38.4	29.0	23.6
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	3.3	3.3	0.3	3.3	4.8		13.1	0.5		5.8	3.7	0.1
Delay (s)	42.0	33.0	26.3	39.8	33.0		48.5	22.8		44.1	32.8	23.7
Level of Service	D	C	C	D	C		D	C		D	C	C
Approach Delay (s)		32.6			34.8			30.5			33.0	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	32.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	87.7	Sum of lost time (s)	17.8
Intersection Capacity Utilization	62.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	290	970	10	50	0	0	0	0	0	660	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7	4.0		3.7						4.1	
Lane Util. Factor		1.00	1.00		1.00						0.95	
Frt		1.00	0.85		1.00						0.97	
Flt Protected		1.00	1.00		0.99						1.00	
Satd. Flow (prot)		1863	1583		1848						3446	
Flt Permitted		1.00	1.00		0.93						1.00	
Satd. Flow (perm)		1863	1583		1738						3446	
Peak-hour factor, PHF	0.82	0.82	0.82	0.75	0.75	0.75	0.92	0.92	0.92	0.87	0.87	0.87
Adj. Flow (vph)	0	354	1183	13	67	0	0	0	0	0	759	161
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	19	0
Lane Group Flow (vph)	0	354	1183	0	80	0	0	0	0	0	901	0
Turn Type		NA	Free	Perm	NA						NA	
Protected Phases		4			8						6	
Permitted Phases			Free	8						6		
Actuated Green, G (s)		20.3	70.0		20.3						41.9	
Effective Green, g (s)		20.3	70.0		20.3						41.9	
Actuated g/C Ratio		0.29	1.00		0.29						0.60	
Clearance Time (s)		3.7			3.7						4.1	
Vehicle Extension (s)		5.0			4.8						4.6	
Lane Grp Cap (vph)		540	1583		504						2062	
v/s Ratio Prot		0.19									0.26	
v/s Ratio Perm			c0.75		0.05							
v/c Ratio		0.66	0.75		0.16						0.44	
Uniform Delay, d1		21.8	0.0		18.5						7.6	
Progression Factor		1.00	1.00		1.00						0.81	
Incremental Delay, d2		3.8	3.3		0.3						0.6	
Delay (s)		25.6	3.3		18.8						6.8	
Level of Service		C	A		B						A	
Approach Delay (s)		8.4			18.8			0.0			6.8	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	7.8
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

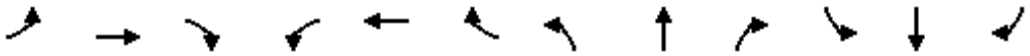


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	290	0	60	430	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6			4.6		
Lane Util. Factor	1.00			0.95		
Frt	1.00			1.00		
Flt Protected	0.95			0.99		
Satd. Flow (prot)	1770			3518		
Flt Permitted	0.95			0.99		
Satd. Flow (perm)	1770			3518		
Peak-hour factor, PHF	0.87	0.87	0.85	0.85	0.92	0.92
Adj. Flow (vph)	333	0	71	506	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	333	0	0	577	0	0
Turn Type	Prot		Perm	NA		
Protected Phases	4			2		
Permitted Phases			2			
Actuated Green, G (s)	20.4			42.6		
Effective Green, g (s)	20.4			42.6		
Actuated g/C Ratio	0.28			0.59		
Clearance Time (s)	4.6			4.6		
Vehicle Extension (s)	5.0			4.9		
Lane Grp Cap (vph)	500			2075		
v/s Ratio Prot	c0.19					
v/s Ratio Perm				0.16		
v/c Ratio	0.67			0.28		
Uniform Delay, d1	22.9			7.3		
Progression Factor	1.00			1.00		
Incremental Delay, d2	4.4			0.3		
Delay (s)	27.3			7.6		
Level of Service	C			A		
Approach Delay (s)	27.3			7.6	0.0	
Approach LOS	C			A	A	

Intersection Summary			
HCM 2000 Control Delay	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	72.2	Sum of lost time (s)	9.2
Intersection Capacity Utilization	37.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

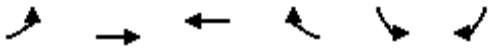
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	250	350	0	0	0	0	0	0	350	1290	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.2							4.6	4.6	
Lane Util. Factor		0.95	1.00							1.00	0.95	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		3539	1583							1770	3539	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		3539	1583							1770	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.80	0.80	0.80
Adj. Flow (vph)	0	272	380	0	0	0	0	0	0	438	1612	0
RTOR Reduction (vph)	0	0	16	0	0	0	0	0	0	130	0	0
Lane Group Flow (vph)	0	272	364	0	0	0	0	0	0	308	1612	0
Turn Type		NA	Perm							Split	NA	
Protected Phases		4								6	6	
Permitted Phases			4									
Actuated Green, G (s)		25.3	25.3							35.9	35.9	
Effective Green, g (s)		25.3	25.3							35.9	35.9	
Actuated g/C Ratio		0.36	0.36							0.51	0.51	
Clearance Time (s)		4.2	4.2							4.6	4.6	
Vehicle Extension (s)		6.4	6.4							5.6	5.6	
Lane Grp Cap (vph)		1279	572							907	1815	
v/s Ratio Prot		0.08								0.17	c0.46	
v/s Ratio Perm			c0.23									
v/c Ratio		0.21	0.64							0.34	0.89	
Uniform Delay, d1		15.5	18.5							10.1	15.3	
Progression Factor		1.00	1.00							0.42	0.77	
Incremental Delay, d2		0.3	4.1							0.8	5.7	
Delay (s)		15.7	22.6							5.1	17.5	
Level of Service		B	C							A	B	
Approach Delay (s)		19.8			0.0			0.0			14.8	
Approach LOS		B			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



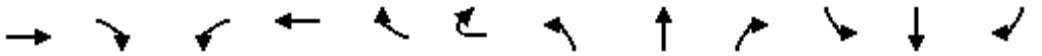
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	350	0	0	0	0	0	240	440	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6						4.6	4.0			
Lane Util. Factor	1.00	1.00						0.95	1.00			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						1.00	1.00			
Satd. Flow (prot)	1770	1863						3539	1583			
Flt Permitted	0.95	1.00						1.00	1.00			
Satd. Flow (perm)	1770	1863						3539	1583			
Peak-hour factor, PHF	0.89	0.89	0.89	0.92	0.92	0.92	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	281	393	0	0	0	0	0	273	500	0	0	0
RTOR Reduction (vph)	193	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	88	393	0	0	0	0	0	273	500	0	0	0
Turn Type	Split	NA						NA	Free			
Protected Phases	4	4						2				
Permitted Phases									Free			
Actuated Green, G (s)	28.1	28.1						52.7	90.0			
Effective Green, g (s)	28.1	28.1						52.7	90.0			
Actuated g/C Ratio	0.31	0.31						0.59	1.00			
Clearance Time (s)	4.6	4.6						4.6				
Vehicle Extension (s)	5.0	5.0						4.5				
Lane Grp Cap (vph)	552	581						2072	1583			
v/s Ratio Prot	0.05	c0.21						0.08				
v/s Ratio Perm									c0.32			
v/c Ratio	0.16	0.68						0.13	0.32			
Uniform Delay, d1	22.4	27.0						8.4	0.0			
Progression Factor	1.00	1.00						1.00	1.00			
Incremental Delay, d2	0.3	4.1						0.1	0.5			
Delay (s)	22.7	31.0						8.5	0.5			
Level of Service	C	C						A	A			
Approach Delay (s)		27.6			0.0			3.3			0.0	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	10	700	320	220	560	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8	4.8	4.8	
Lane Util. Factor		0.95	1.00	1.00	0.97	
Frt		1.00	1.00	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3492	1776	1495	3396	
Flt Permitted		0.95	1.00	1.00	0.95	
Satd. Flow (perm)		3317	1776	1495	3396	
Peak-hour factor, PHF	0.65	0.65	0.93	0.93	0.76	0.76
Adj. Flow (vph)	15	1077	344	237	737	13
RTOR Reduction (vph)	0	0	0	114	2	0
Lane Group Flow (vph)	0	1092	344	123	748	0
Heavy Vehicles (%)	25%	3%	7%	8%	3%	14%
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)		31.2	31.2	31.2	19.2	
Effective Green, g (s)		31.2	31.2	31.2	19.2	
Actuated g/C Ratio		0.52	0.52	0.52	0.32	
Clearance Time (s)		4.8	4.8	4.8	4.8	
Lane Grp Cap (vph)		1724	923	777	1086	
v/s Ratio Prot			0.19		c0.22	
v/s Ratio Perm		c0.33		0.08		
v/c Ratio		0.63	0.37	0.16	0.69	
Uniform Delay, d1		10.3	8.6	7.5	17.8	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.8	1.2	0.4	3.6	
Delay (s)		12.1	9.7	8.0	21.4	
Level of Service		B	A	A	C	
Approach Delay (s)		12.1	9.0		21.4	
Approach LOS		B	A		C	

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



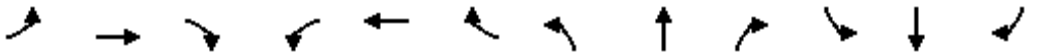
Movement	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	20	10	110	220	10	20	190	10	540	580	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6			4.6	4.6			4.6	4.6	4.6	4.6	
Lane Util. Factor	1.00			1.00	1.00			0.95	1.00	1.00	1.00	
Frt	0.98			1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected	1.00			1.00	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1817			1855	1583			3522	1583	1770	1858	
Flt Permitted	1.00			0.97	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1817			1813	1583			3522	1583	1770	1858	
Peak-hour factor, PHF	0.84	0.84	0.79	0.79	0.79	0.79	0.92	0.92	0.92	0.71	0.71	0.71
Adj. Flow (vph)	107	24	13	139	278	13	22	207	11	761	817	14
RTOR Reduction (vph)	9	0	0	0	19	0	0	0	10	0	1	0
Lane Group Flow (vph)	122	0	0	152	272	0	0	229	1	761	830	0
Turn Type	NA		Perm	NA	custom		Split	NA	Perm	Split	NA	
Protected Phases	6			6	2		4	4		5	5	
Permitted Phases			6						4			
Actuated Green, G (s)	21.6			21.6	68.7			13.0	13.0	42.5	42.5	
Effective Green, g (s)	21.6			21.6	68.7			13.0	13.0	42.5	42.5	
Actuated g/C Ratio	0.23			0.23	0.72			0.14	0.14	0.44	0.44	
Clearance Time (s)	4.6			4.6	4.6			4.6	4.6	4.6	4.6	
Vehicle Extension (s)	5.0			5.0	5.0			4.0	4.0	5.0	5.0	
Lane Grp Cap (vph)	408			407	1132			476	214	783	822	
v/s Ratio Prot	0.07				0.17			c0.07		0.43	c0.45	
v/s Ratio Perm				c0.08					0.00			
v/c Ratio	0.30			0.37	0.24			0.48	0.01	0.97	1.01	
Uniform Delay, d1	30.9			31.5	4.7			38.4	35.9	26.2	26.8	
Progression Factor	1.00			1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.9			1.2	0.5			1.0	0.0	26.0	33.9	
Delay (s)	31.8			32.7	5.2			39.4	35.9	52.2	60.7	
Level of Service	C			C	A			D	D	D	E	
Approach Delay (s)	31.8			14.6				39.3			56.6	
Approach LOS	C			B				D			E	

Intersection Summary			
HCM 2000 Control Delay	45.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	96.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SWR2
Lane Configurations	
Volume (vph)	10
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.2
Lane Util. Factor	1.00
Frt	0.86
Flt Protected	1.00
Satd. Flow (prot)	1611
Flt Permitted	1.00
Satd. Flow (perm)	1611
Peak-hour factor, PHF	0.75
Adj. Flow (vph)	13
RTOR Reduction (vph)	13
Lane Group Flow (vph)	0
Turn Type	Prot
Protected Phases	8
Permitted Phases	
Actuated Green, G (s)	0.9
Effective Green, g (s)	0.9
Actuated g/C Ratio	0.01
Clearance Time (s)	4.2
Vehicle Extension (s)	2.0
Lane Grp Cap (vph)	15
v/s Ratio Prot	c0.00
v/s Ratio Perm	
v/c Ratio	0.01
Uniform Delay, d1	47.1
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	47.2
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	590	20	10	160	0	10	0	20	330	1020	150
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
Lane Util. Factor		1.00		1.00	1.00		1.00		1.00	1.00	1.00	1.00
Frt		1.00		1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		1854		1770	1863		1770		1583	1770	1863	1583
Flt Permitted		1.00		0.16	1.00		0.17		1.00	0.95	1.00	1.00
Satd. Flow (perm)		1854		298	1863		310		1583	1770	1863	1583
Peak-hour factor, PHF	0.70	0.70	0.70	0.87	0.87	0.87	0.78	0.78	0.78	0.90	0.90	0.90
Adj. Flow (vph)	0	843	29	11	184	0	13	0	26	367	1133	167
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	15	0	0	98
Lane Group Flow (vph)	0	870	0	11	184	0	13	0	11	367	1133	69
Turn Type		NA		Perm	NA		D.Pm		Perm	Perm	NA	Perm
Protected Phases					4						2	
Permitted Phases		4		4			2		2	2		2
Actuated Green, G (s)		25.0		25.0	25.0		24.0		24.0	24.0	24.0	24.0
Effective Green, g (s)		25.0		25.0	25.0		24.0		24.0	24.0	24.0	24.0
Actuated g/C Ratio		0.43		0.43	0.43		0.41		0.41	0.41	0.41	0.41
Clearance Time (s)		4.5		4.5	4.5		4.5		4.5	4.5	4.5	4.5
Lane Grp Cap (vph)		799		128	803		128		655	732	770	655
v/s Ratio Prot					0.10						c0.61	
v/s Ratio Perm		c0.47		0.04			0.04		0.01	0.21		0.04
v/c Ratio		1.09		0.09	0.23		0.10		0.02	0.50	1.47	0.11
Uniform Delay, d1		16.5		9.7	10.4		10.4		10.0	12.6	17.0	10.4
Progression Factor		1.00		1.00	1.00		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		58.6		1.3	0.7		1.6		0.0	2.4	219.2	0.3
Delay (s)		75.1		11.1	11.1		12.0		10.1	15.0	236.2	10.7
Level of Service		E		B	B		B		B	B	F	B
Approach Delay (s)		75.1			11.1			10.7			164.9	
Approach LOS		E			B			B			F	

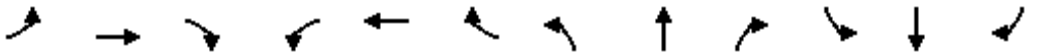
Intersection Summary			
HCM 2000 Control Delay	123.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.28		
Actuated Cycle Length (s)	58.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	630	230	20	140	50	40	480	20	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			5.2	5.2			
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00			
Frt	1.00	0.97		1.00	0.96			1.00	0.85			
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00			
Satd. Flow (prot)	1770	1805		1770	1789			1856	1583			
Flt Permitted	0.61	1.00		0.10	1.00			1.00	1.00			
Satd. Flow (perm)	1141	1805		187	1789			1856	1583			
Peak-hour factor, PHF	0.69	0.69	0.96	0.81	0.81	0.81	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	72	913	240	25	173	62	43	511	21	0	0	0
RTOR Reduction (vph)	0	16	0	0	3	0	0	0	18	0	0	0
Lane Group Flow (vph)	72	1137	0	25	232	0	0	554	3	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm			
Protected Phases		8			4			6				
Permitted Phases	8			4			6		6			
Actuated Green, G (s)	39.8	39.8		39.8	39.8			9.0	9.0			
Effective Green, g (s)	39.8	39.8		39.8	39.8			9.0	9.0			
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.15	0.15			
Clearance Time (s)	6.0	6.0		6.0	6.0			5.2	5.2			
Lane Grp Cap (vph)	756	1197		124	1186			278	237			
v/s Ratio Prot		c0.63			0.13							
v/s Ratio Perm	0.06			0.13				0.30	0.00			
v/c Ratio	0.10	0.95		0.20	0.20			1.99	0.01			
Uniform Delay, d1	3.6	9.2		3.9	3.9			25.5	21.7			
Progression Factor	1.00	1.00		0.68	0.64			1.00	1.00			
Incremental Delay, d2	0.3	16.5		3.2	0.3			459.4	0.1			
Delay (s)	3.9	25.7		5.9	2.8			484.9	21.8			
Level of Service	A	C		A	A			F	C			
Approach Delay (s)		24.4			3.1			468.0			0.0	
Approach LOS		C			A			F			A	

Intersection Summary			
HCM 2000 Control Delay	145.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	84.0%	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	530	60	0	140	0	0	0	0	70	910	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5					4.9	4.9	4.9
Lane Util. Factor		1.00			1.00					1.00	0.95	1.00
Frt		0.99			1.00					1.00	1.00	0.85
Flt Protected		1.00			1.00					0.95	1.00	1.00
Satd. Flow (prot)		1837			1863					1770	3539	1583
Flt Permitted		1.00			1.00					0.95	1.00	1.00
Satd. Flow (perm)		1837			1863					1770	3539	1583
Peak-hour factor, PHF	0.84	0.84	0.84	0.86	0.86	0.86	0.92	0.92	0.92	0.77	0.77	0.77
Adj. Flow (vph)	0	631	71	0	163	0	0	0	0	91	1182	156
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	0	0	0	76
Lane Group Flow (vph)	0	695	0	0	163	0	0	0	0	91	1182	80
Turn Type		NA			NA					Perm	NA	Perm
Protected Phases		4			4						2	
Permitted Phases										2		2
Actuated Green, G (s)		27.0			27.0					23.0	23.0	23.0
Effective Green, g (s)		27.0			27.0					23.0	23.0	23.0
Actuated g/C Ratio		0.45			0.45					0.39	0.39	0.39
Clearance Time (s)		4.5			4.5					4.9	4.9	4.9
Lane Grp Cap (vph)		835			846					685	1370	612
v/s Ratio Prot		c0.38			0.09						c0.33	
v/s Ratio Perm										0.05		0.05
v/c Ratio		0.83			0.19					0.13	0.86	0.13
Uniform Delay, d1		14.2			9.7					11.8	16.7	11.7
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		9.5			0.5					0.4	7.4	0.4
Delay (s)		23.7			10.2					12.2	24.1	12.2
Level of Service		C			B					B	C	B
Approach Delay (s)		23.7			10.2			0.0			22.1	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	9.4
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

MOVEMENT SUMMARY

Site: 25_Divisidero_Abby_AM

Divisadero Street/Abby Street/P Street
Baseline Plus Project Conditions
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South East: P Street											
3X	L	163	2.0	0.909	31.8	LOS D	17.2	436.2	1.00	1.60	16.6
18X	R	413	2.0	0.909	25.8	LOS D	17.2	436.2	1.00	1.60	17.5
Approach		576	2.0	0.909	27.5	LOS D	17.2	436.2	1.00	1.60	17.2
East: Divisidero St											
1	L	152	2.0	0.639	20.2	LOS C	6.1	155.3	0.96	1.13	23.0
6	T	109	2.0	0.639	14.9	LOS B	6.1	155.3	0.96	1.11	24.2
16	R	76	2.0	0.639	17.3	LOS C	6.1	155.3	0.96	1.12	24.6
Approach		337	2.0	0.639	17.8	LOS C	6.1	155.3	0.96	1.12	23.7
West: Divisidero St											
5	L	130	2.0	0.682	16.3	LOS C	7.6	192.9	0.80	0.90	26.6
2	T	413	2.0	0.682	7.8	LOS A	7.6	192.9	0.80	0.77	28.1
12	R	87	2.0	0.682	7.7	LOS A	7.6	192.9	0.80	0.77	28.1
Approach		630	2.0	0.682	9.5	LOS A	7.6	192.9	0.80	0.80	27.8
All Vehicles		1543	2.0	0.909	18.1	LOS C	17.2	436.2	0.91	1.17	21.9

Level of Service (LOS) Method: Delay (HCM 2000).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

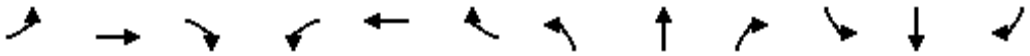
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Movement	WBL	WBT	SBL	SBR	SBR2	SET	SER	NWL	NWT
Lane Configurations									
Volume (vph)	30	200	320	620	10	10	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	4.9	4.9		4.6			4.0
Lane Util. Factor	1.00	1.00	1.00	0.88		1.00			1.00
Frt	1.00	1.00	1.00	0.85		0.93			1.00
Flt Protected	0.95	1.00	0.95	1.00		1.00			0.98
Satd. Flow (prot)	1770	1863	1770	2787		1737			1817
Flt Permitted	0.95	1.00	0.95	1.00		1.00			0.97
Satd. Flow (perm)	1770	1863	1770	2787		1737			1803
Peak-hour factor, PHF	0.65	0.65	0.73	0.73	0.73	0.45	0.45	0.63	0.63
Adj. Flow (vph)	46	308	438	849	14	22	22	16	16
RTOR Reduction (vph)	0	0	0	93	0	17	0	0	0
Lane Group Flow (vph)	46	308	438	770	0	27	0	0	32
Turn Type	Perm	NA	Prot	Perm		NA		Perm	NA
Protected Phases		4!	2			4!			1
Permitted Phases	4			2				1	
Actuated Green, G (s)	11.3	11.3	18.5	18.5		11.3			3.1
Effective Green, g (s)	11.3	11.3	18.5	18.5		11.3			3.1
Actuated g/C Ratio	0.24	0.24	0.40	0.40		0.24			0.07
Clearance Time (s)	4.6	4.6	4.9	4.9		4.6			4.0
Vehicle Extension (s)	4.0	4.0	4.0	4.0		4.0			2.0
Lane Grp Cap (vph)	431	453	705	1111		423			120
v/s Ratio Prot		c0.17	0.25			0.02			
v/s Ratio Perm	0.03			c0.28					c0.02
v/c Ratio	0.11	0.68	0.62	0.69		0.06			0.27
Uniform Delay, d1	13.6	15.9	11.1	11.6		13.5			20.6
Progression Factor	1.00	1.00	1.00	1.00		1.00			1.00
Incremental Delay, d2	0.1	4.4	1.9	2.0		0.1			0.4
Delay (s)	13.8	20.3	13.1	13.6		13.6			21.0
Level of Service	B	C	B	B		B			C
Approach Delay (s)		19.5	13.4			13.6			21.0
Approach LOS		B	B			B			C

Intersection Summary			
HCM 2000 Control Delay	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	46.4	Sum of lost time (s)	16.5
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		

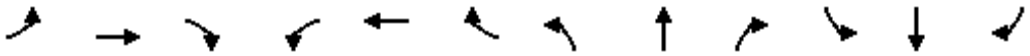
! Phase conflict between lane groups.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	90	630	10	20	120	0	0	270	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.2			4.2			4.2	
Lane Util. Factor					0.95			1.00			1.00	
Frt					1.00			1.00			0.96	
Flt Protected					0.99			0.99			1.00	
Satd. Flow (prot)					3510			1849			1785	
Flt Permitted					0.99			0.71			1.00	
Satd. Flow (perm)					3510			1326			1785	
Peak-hour factor, PHF	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.69	0.69	0.69
Adj. Flow (vph)	0	0	0	95	663	11	22	130	0	0	391	174
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	27	0
Lane Group Flow (vph)	0	0	0	0	768	0	0	152	0	0	538	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4			2					
Actuated Green, G (s)					30.8			20.8			20.8	
Effective Green, g (s)					30.8			20.8			20.8	
Actuated g/C Ratio					0.51			0.35			0.35	
Clearance Time (s)					4.2			4.2			4.2	
Lane Grp Cap (vph)					1801			459			618	
v/s Ratio Prot											c0.30	
v/s Ratio Perm					0.22			0.11				
v/c Ratio					0.43			0.33			0.87	
Uniform Delay, d1					9.1			14.5			18.3	
Progression Factor					1.00			0.99			1.00	
Incremental Delay, d2					0.7			1.9			15.5	
Delay (s)					9.8			16.2			33.9	
Level of Service					A			B			C	
Approach Delay (s)		0.0			9.8			16.2			33.9	
Approach LOS		A			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

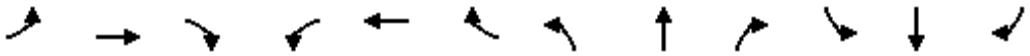
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	90	590	20	140	320	0	0	270	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.2	4.2	4.2	4.2			4.2	
Lane Util. Factor					0.95	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.98	
Flt Protected					0.99	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					3516	1583	1770	1863			1824	
Flt Permitted					0.99	1.00	0.47	1.00			1.00	
Satd. Flow (perm)					3516	1583	873	1863			1824	
Peak-hour factor, PHF	0.92	0.92	0.92	0.81	0.81	0.81	0.93	0.93	0.93	0.86	0.86	0.86
Adj. Flow (vph)	0	0	0	111	728	25	151	344	0	0	314	58
RTOR Reduction (vph)	0	0	0	0	0	16	0	0	0	0	11	0
Lane Group Flow (vph)	0	0	0	0	839	9	151	344	0	0	361	0
Turn Type				Perm	NA	Perm	Perm	NA			NA	
Protected Phases					4			6			2	
Permitted Phases				4		4	6					
Actuated Green, G (s)					22.0	22.0	28.0	28.0			28.0	
Effective Green, g (s)					22.0	22.0	28.0	28.0			28.0	
Actuated g/C Ratio					0.38	0.38	0.48	0.48			0.48	
Clearance Time (s)					4.2	4.2	4.2	4.2			4.2	
Lane Grp Cap (vph)					1324	596	418	893			874	
v/s Ratio Prot								0.18			c0.20	
v/s Ratio Perm					0.24	0.01	0.17					
v/c Ratio					0.63	0.02	0.36	0.39			0.41	
Uniform Delay, d1					14.9	11.4	9.6	9.7			9.9	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					2.3	0.0	2.4	1.3			1.4	
Delay (s)					17.2	11.5	12.0	11.0			11.3	
Level of Service					B	B	B	B			B	
Approach Delay (s)		0.0			17.1			11.3			11.3	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	58.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		

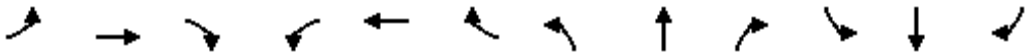
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	510	360	50	110	310	0	0	210	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.2	4.2	4.2	4.2	4.2			4.2	
Lane Util. Factor				1.00	0.95	1.00	1.00	1.00			1.00	
Frt				1.00	1.00	0.85	1.00	1.00			0.94	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1770	3539	1583	1770	1863			1750	
Flt Permitted				0.95	1.00	1.00	0.44	1.00			1.00	
Satd. Flow (perm)				1770	3539	1583	815	1863			1750	
Peak-hour factor, PHF	0.92	0.92	0.92	0.96	0.96	0.96	0.58	0.58	0.58	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	531	375	52	190	534	0	0	247	200
RTOR Reduction (vph)	0	0	0	0	0	37	0	0	0	0	48	0
Lane Group Flow (vph)	0	0	0	531	375	15	190	534	0	0	399	0
Turn Type				Perm	NA	Perm	Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4		4	2					
Actuated Green, G (s)				17.8	17.8	17.8	33.8	33.8			33.8	
Effective Green, g (s)				17.8	17.8	17.8	33.8	33.8			33.8	
Actuated g/C Ratio				0.30	0.30	0.30	0.56	0.56			0.56	
Clearance Time (s)				4.2	4.2	4.2	4.2	4.2			4.2	
Lane Grp Cap (vph)				525	1049	469	459	1049			985	
v/s Ratio Prot					0.11			c0.29			0.23	
v/s Ratio Perm				c0.30		0.01	0.23					
v/c Ratio				1.01	0.36	0.03	0.41	0.51			0.40	
Uniform Delay, d1				21.1	16.6	15.0	7.5	8.0			7.4	
Progression Factor				1.02	0.98	1.42	0.33	0.32			1.00	
Incremental Delay, d2				38.9	0.8	0.1	2.6	1.6			1.2	
Delay (s)				60.5	17.0	21.4	5.0	4.2			8.6	
Level of Service				E	B	C	A	A			A	
Approach Delay (s)		0.0			41.3			4.4			8.6	
Approach LOS		A			D			A			A	

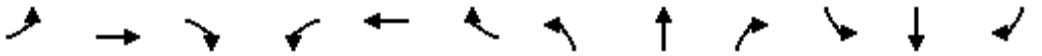
Intersection Summary			
HCM 2000 Control Delay	21.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	50	520	80	160	270	0	0	130	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.4	5.4		5.4			5.4	
Lane Util. Factor					0.91	1.00		0.95			0.95	
Frt					1.00	0.85		1.00			0.93	
Flt Protected					1.00	1.00		0.98			1.00	
Satd. Flow (prot)					4765	1583		3475			3274	
Flt Permitted					1.00	1.00		0.72			1.00	
Satd. Flow (perm)					4765	1583		2552			3274	
Peak-hour factor, PHF	0.92	0.92	0.92	0.93	0.93	0.93	0.86	0.86	0.86	0.84	0.84	0.84
Adj. Flow (vph)	0	0	0	54	559	86	186	314	0	0	155	155
RTOR Reduction (vph)	0	0	0	0	0	61	0	0	0	0	39	0
Lane Group Flow (vph)	0	0	0	0	613	25	0	500	0	0	271	0
Heavy Vehicles (%)	2%	2%	2%	2%	9%	2%	2%	2%	2%	2%	2%	2%
Turn Type				Perm	NA	Perm	Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4		4	2					
Actuated Green, G (s)					17.4	17.4		31.8			31.8	
Effective Green, g (s)					17.4	17.4		31.8			31.8	
Actuated g/C Ratio					0.29	0.29		0.53			0.53	
Clearance Time (s)					5.4	5.4		5.4			5.4	
Lane Grp Cap (vph)					1381	459		1352			1735	
v/s Ratio Prot											0.08	
v/s Ratio Perm					0.13	0.02		c0.20				
v/c Ratio					0.44	0.05		0.37			0.16	
Uniform Delay, d1					17.4	15.4		8.2			7.2	
Progression Factor					1.00	1.00		1.00			1.00	
Incremental Delay, d2					1.0	0.2		0.8			0.2	
Delay (s)					18.4	15.6		9.0			7.4	
Level of Service					B	B		A			A	
Approach Delay (s)		0.0			18.0			9.0			7.4	
Approach LOS		A			B			A			A	

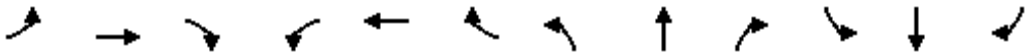
Intersection Summary			
HCM 2000 Control Delay	12.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	81.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	350	460	30	320	0	0	0	0
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				
Lane Util. Factor					0.91	1.00		0.95				
Frt					1.00	0.85		1.00				
Flt Protected					1.00	1.00		1.00				
Satd. Flow (prot)					4759	1417		3425				
Flt Permitted					1.00	1.00		1.00				
Satd. Flow (perm)					4759	1417		3425				
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.84	0.84	0.79	0.79	0.79	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	417	548	38	405	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	138	0	16	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	417	410	0	427	0	0	0	0
Heavy Vehicles (%)	0%	0%	0%	0%	9%	14%	15%	4%	0%	0%	0%	0%
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					14.5	14.5		10.3				
Effective Green, g (s)					14.5	14.5		10.3				
Actuated g/C Ratio					0.44	0.44		0.31				
Clearance Time (s)					4.0	4.0		4.0				
Vehicle Extension (s)					3.0	3.0		3.0				
Lane Grp Cap (vph)					2103	626		1075				
v/s Ratio Prot					0.09							
v/s Ratio Perm						c0.29		0.12				
v/c Ratio					0.20	0.66		0.40				
Uniform Delay, d1					5.6	7.2		8.8				
Progression Factor					1.00	1.00		1.00				
Incremental Delay, d2					0.0	2.5		0.2				
Delay (s)					5.6	9.7		9.1				
Level of Service					A	A		A				
Approach Delay (s)		0.0			7.9			9.1			0.0	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	32.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		

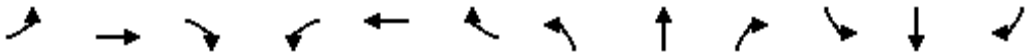
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	120	260	0	0	0	0	0	980	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.95	
Frt					1.00						0.97	
Flt Protected					0.98						1.00	
Satd. Flow (prot)					4678						3421	
Flt Permitted					0.98						1.00	
Satd. Flow (perm)					4678						3421	
Peak-hour factor, PHF	0.92	0.92	0.92	0.89	0.89	0.89	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	135	292	0	0	0	0	0	1065	304
RTOR Reduction (vph)	0	0	0	0	38	0	0	0	0	0	50	0
Lane Group Flow (vph)	0	0	0	0	389	0	0	0	0	0	1319	0
Heavy Vehicles (%)	0%	0%	0%	16%	6%	0%	0%	0%	0%	0%	2%	2%
Turn Type				Perm	NA						NA	
Protected Phases					8						6	
Permitted Phases				8								
Actuated Green, G (s)					9.4						20.2	
Effective Green, g (s)					9.4						20.2	
Actuated g/C Ratio					0.25						0.54	
Clearance Time (s)					4.0						4.0	
Vehicle Extension (s)					3.0						3.0	
Lane Grp Cap (vph)					1169						1837	
v/s Ratio Prot											c0.39	
v/s Ratio Perm					0.08							
v/c Ratio					0.33						0.72	
Uniform Delay, d1					11.5						6.6	
Progression Factor					1.00						1.00	
Incremental Delay, d2					0.2						1.4	
Delay (s)					11.7						7.9	
Level of Service					B						A	
Approach Delay (s)		0.0			11.7			0.0			7.9	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	37.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		

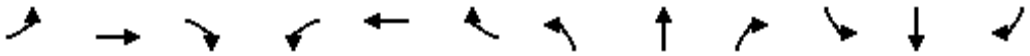
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	0	10	100	280	120	20	80	0	0	360	10
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	
Lane Util. Factor		1.00			1.00	1.00		1.00			1.00	
Frt		0.93			1.00	0.85		1.00			1.00	
Flt Protected		0.98			0.99	1.00		0.99			1.00	
Satd. Flow (prot)		1729			1838	1509		1823			1893	
Flt Permitted		0.79			0.91	1.00		0.89			1.00	
Satd. Flow (perm)		1407			1690	1509		1639			1893	
Peak-hour factor, PHF	0.50	0.50	0.50	0.91	0.91	0.91	0.68	0.68	0.68	0.92	0.92	0.92
Adj. Flow (vph)	20	0	20	110	308	132	29	118	0	0	391	11
RTOR Reduction (vph)	0	17	0	0	0	82	0	0	0	0	2	0
Lane Group Flow (vph)	0	23	0	0	418	50	0	147	0	0	400	0
Heavy Vehicles (%)	0%	0%	0%	5%	1%	7%	0%	4%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2					
Actuated Green, G (s)		12.7			12.7	12.7		13.1			13.1	
Effective Green, g (s)		12.7			12.7	12.7		13.1			13.1	
Actuated g/C Ratio		0.38			0.38	0.38		0.39			0.39	
Clearance Time (s)		4.0			4.0	4.0		4.0			4.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)		528			635	566		635			733	
v/s Ratio Prot											c0.21	
v/s Ratio Perm		0.02			c0.25	0.03		0.09				
v/c Ratio		0.04			0.66	0.09		0.23			0.55	
Uniform Delay, d1		6.7			8.8	6.8		7.0			8.0	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		0.0			2.5	0.1		0.2			0.8	
Delay (s)		6.7			11.2	6.9		7.2			8.9	
Level of Service		A			B	A		A			A	
Approach Delay (s)		6.7			10.2			7.2			8.9	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	33.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

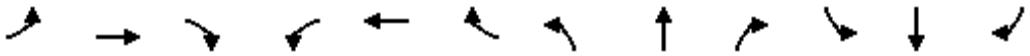
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	180	10	0	0	0	10	10	20	170	110	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.82	0.82	0.82	0.92	0.92	0.92	0.67	0.67	0.67	0.85	0.85	0.85
Hourly flow rate (vph)	12	220	12	0	0	0	15	15	30	200	129	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	595	610	135	711	601	30	141			45		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	595	610	135	711	601	30	141			45		
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 %	97	38	99	100	100	100	99			87		
cM capacity (veh/h)	374	351	919	157	359	1050	1454			1544		

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	244	60	200	141
Volume Left	12	15	200	0
Volume Right	12	30	0	12
cSH	364	1454	1544	1700
Volume to Capacity	0.67	0.01	0.13	0.08
Queue Length 95th (ft)	116	1	11	0
Control Delay (s)	32.8	1.9	7.7	0.0
Lane LOS	D	A	A	
Approach Delay (s)	32.8	1.9	4.5	
Approach LOS	D			

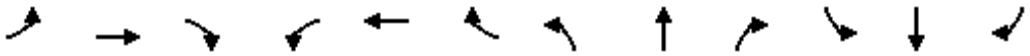
Intersection Summary				
Average Delay	15.0			
Intersection Capacity Utilization	33.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	770	50	0	0	0	0	0	0	960	140	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.91									0.95	
Frt		0.99									1.00	
Flt Protected		1.00									0.96	
Satd. Flow (prot)		5024									3345	
Flt Permitted		1.00									0.96	
Satd. Flow (perm)		5024									3345	
Peak-hour factor, PHF	0.81	0.81	0.81	0.92	0.92	0.92	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	0	951	62	0	0	0	0	0	0	1079	157	0
RTOR Reduction (vph)	0	16	0	0	0	0	0	0	0	0	15	0
Lane Group Flow (vph)	0	997	0	0	0	0	0	0	0	0	1221	0
Heavy Vehicles (%)	0%	2%	7%	0%	0%	0%	0%	0%	0%	2%	13%	0%
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		14.6									19.9	
Effective Green, g (s)		14.6									19.9	
Actuated g/C Ratio		0.34									0.47	
Clearance Time (s)		4.0									4.0	
Vehicle Extension (s)		3.0									3.0	
Lane Grp Cap (vph)		1725									1566	
v/s Ratio Prot		c0.20										
v/s Ratio Perm											0.36	
v/c Ratio		0.58									1.28dl	
Uniform Delay, d1		11.4									9.5	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.5									2.5	
Delay (s)		11.9									12.0	
Level of Service		B									B	
Approach Delay (s)		11.9			0.0			0.0			12.0	
Approach LOS		B			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	42.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		

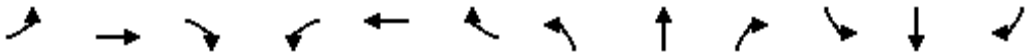
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	320	1410	0	0	0	0	0	30	370	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.91						0.95				
Frt		1.00						0.86				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5020						2889				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5020						2889				
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.69	0.69	0.69	0.92	0.92	0.92
Adj. Flow (vph)	352	1549	0	0	0	0	0	43	536	0	0	0
RTOR Reduction (vph)	0	77	0	0	0	0	0	8	0	0	0	0
Lane Group Flow (vph)	0	1824	0	0	0	0	0	571	0	0	0	0
Heavy Vehicles (%)	4%	2%	0%	0%	0%	0%	0%	15%	7%	0%	0%	0%
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		20.9						13.2				
Effective Green, g (s)		20.9						13.2				
Actuated g/C Ratio		0.50						0.31				
Clearance Time (s)		4.0						4.0				
Vehicle Extension (s)		3.0						3.0				
Lane Grp Cap (vph)		2492						905				
v/s Ratio Prot								c0.20				
v/s Ratio Perm		0.36										
v/c Ratio		0.73						1.10dr				
Uniform Delay, d1		8.4						12.4				
Progression Factor		1.00						1.00				
Incremental Delay, d2		1.1						1.4				
Delay (s)		9.5						13.8				
Level of Service		A						B				
Approach Delay (s)		9.5			0.0			13.8			0.0	
Approach LOS		A			A			B			A	

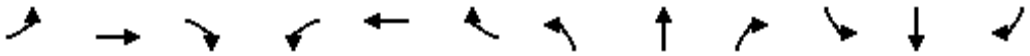
Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	42.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.2%	ICU Level of Service	A
Analysis Period (min)	15		

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	260	1290	230	0	0	0	0	230	60	40	130	0
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	
Lane Util. Factor		0.91						0.95			0.95	
Frt		0.98						0.97			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		4951						3429			3498	
Flt Permitted		0.99						1.00			0.84	
Satd. Flow (perm)		4951						3429			2965	
Peak-hour factor, PHF	0.82	0.82	0.82	0.92	0.92	0.92	0.88	0.88	0.88	0.78	0.78	0.78
Adj. Flow (vph)	317	1573	280	0	0	0	0	261	68	51	167	0
RTOR Reduction (vph)	0	32	0	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	2138	0	0	0	0	0	324	0	0	218	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						8			4	
Permitted Phases	2									4		
Actuated Green, G (s)		25.0						20.0			20.0	
Effective Green, g (s)		25.0						20.0			20.0	
Actuated g/C Ratio		0.47						0.38			0.38	
Clearance Time (s)		4.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		2335						1293			1118	
v/s Ratio Prot								c0.09				
v/s Ratio Perm		0.43									0.07	
v/c Ratio		0.92						0.25			0.19	
Uniform Delay, d1		13.0						11.3			11.1	
Progression Factor		1.00						1.00			1.00	
Incremental Delay, d2		6.2						0.1			0.1	
Delay (s)		19.2						11.4			11.2	
Level of Service		B						B			B	
Approach Delay (s)		19.2			0.0			11.4			11.2	
Approach LOS		B			A			B			B	

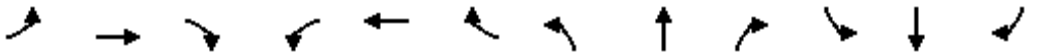
Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	53.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	330	530	330	0	0	0	0	140	70	70	540	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2	4.2					4.2	4.2	4.6	4.6	
Lane Util. Factor	1.00	0.95	1.00					1.00	1.00	0.95	0.95	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583					1863	1583	1681	1768	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.64	1.00	
Satd. Flow (perm)	1770	3539	1583					1863	1583	1132	1761	
Peak-hour factor, PHF	0.96	0.96	0.96	0.92	0.92	0.92	0.75	0.75	0.75	0.80	0.80	0.80
Adj. Flow (vph)	344	552	344	0	0	0	0	187	93	88	675	0
RTOR Reduction (vph)	0	0	233	0	0	0	0	0	72	0	0	0
Lane Group Flow (vph)	344	552	111	0	0	0	0	187	21	79	684	0
Turn Type	Perm	NA	Perm					NA	Perm	Perm	NA	
Protected Phases		8						1			2	
Permitted Phases	8		8						1	2		
Actuated Green, G (s)	19.4	19.4	19.4					13.8	13.8	13.8	13.8	
Effective Green, g (s)	19.4	19.4	19.4					13.8	13.8	13.8	13.8	
Actuated g/C Ratio	0.32	0.32	0.32					0.23	0.23	0.23	0.23	
Clearance Time (s)	4.2	4.2	4.2					4.2	4.2	4.6	4.6	
Lane Grp Cap (vph)	572	1144	511					428	364	260	405	
v/s Ratio Prot		0.16						c0.10				
v/s Ratio Perm	c0.19		0.07						0.01	0.07	c0.39	
v/c Ratio	0.60	0.48	0.22					0.44	0.06	0.30	1.69	
Uniform Delay, d1	17.1	16.3	14.8					19.8	18.0	19.1	23.1	
Progression Factor	1.00	1.00	1.00					1.00	1.00	1.57	1.49	
Incremental Delay, d2	4.6	1.5	1.0					3.2	0.3	1.6	315.7	
Delay (s)	21.7	17.7	15.8					23.0	18.3	31.6	350.2	
Level of Service	C	B	B					C	B	C	F	
Approach Delay (s)		18.3			0.0			21.4			317.2	
Approach LOS		B			A			C			F	

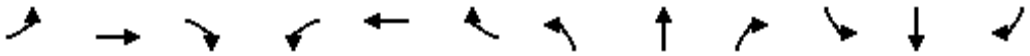
Intersection Summary			
HCM 2000 Control Delay	118.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



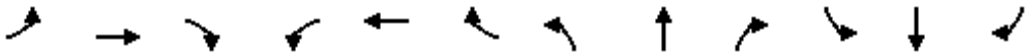
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	540	110	0	0	0	0	380	70	40	310	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2						4.2		4.2	4.2	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		0.98						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		3442						1824		1770	1863	
Flt Permitted		1.00						1.00		0.35	1.00	
Satd. Flow (perm)		3442						1824		647	1863	
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.91	0.91	0.91	0.87	0.87	0.87
Adj. Flow (vph)	82	635	129	0	0	0	0	418	77	46	356	0
RTOR Reduction (vph)	0	20	0	0	0	0	0	10	0	0	0	0
Lane Group Flow (vph)	0	826	0	0	0	0	0	485	0	46	356	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		8						6			2	
Permitted Phases	8									2		
Actuated Green, G (s)		23.0						27.5		27.5	27.5	
Effective Green, g (s)		23.0						27.5		27.5	27.5	
Actuated g/C Ratio		0.39						0.47		0.47	0.47	
Clearance Time (s)		4.2						4.2		4.2	4.2	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		1344						851		302	869	
v/s Ratio Prot								c0.27			0.19	
v/s Ratio Perm		0.24								0.07		
v/c Ratio		0.61						0.57		0.15	0.41	
Uniform Delay, d1		14.4						11.4		9.0	10.3	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.8						0.9		0.2	0.3	
Delay (s)		15.2						12.3		9.2	10.7	
Level of Service		B						B		A	B	
Approach Delay (s)		15.2			0.0			12.3			10.5	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	58.9	Sum of lost time (s)	8.4
Intersection Capacity Utilization	77.7%	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)	60	500	80	0	0	0	0	80	10	50	260	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.2					4.2			4.2	
Lane Util. Factor		0.95	1.00					1.00			1.00	
Frt		1.00	0.85					0.98			1.00	
Flt Protected		0.99	1.00					1.00			0.99	
Satd. Flow (prot)		3559	1615					1871			1839	
Flt Permitted		0.99	1.00					1.00			0.94	
Satd. Flow (perm)		3559	1615					1871			1740	
Peak-hour factor, PHF	0.87	0.87	0.87	0.92	0.92	0.92	0.92	0.92	0.92	0.82	0.82	0.82
Adj. Flow (vph)	69	575	92	0	0	0	0	87	11	61	317	0
RTOR Reduction (vph)	0	0	45	0	0	0	0	7	0	0	0	0
Lane Group Flow (vph)	0	644	47	0	0	0	0	91	0	0	378	0
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		8						2			2	
Permitted Phases	8		8							2		
Actuated Green, G (s)		30.8	30.8					20.8			20.8	
Effective Green, g (s)		30.8	30.8					20.8			20.8	
Actuated g/C Ratio		0.51	0.51					0.35			0.35	
Clearance Time (s)		4.2	4.2					4.2			4.2	
Lane Grp Cap (vph)		1826	829					648			603	
v/s Ratio Prot								0.05				
v/s Ratio Perm		0.18	0.03								c0.22	
v/c Ratio		0.35	0.06					0.14			0.63	
Uniform Delay, d1		8.7	7.3					13.5			16.4	
Progression Factor		1.00	1.00					1.00			0.62	
Incremental Delay, d2		0.5	0.1					0.5			2.9	
Delay (s)		9.2	7.5					13.9			13.0	
Level of Service		A	A					B			B	
Approach Delay (s)		9.0			0.0			13.9			13.0	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



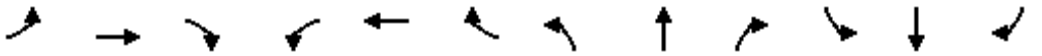
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	310	60	80	10	0	20	0	200	40	10	60	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.0			4.2			4.2	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.91			0.91			0.98			1.00	
Flt Protected	0.95	1.00			0.98			1.00			0.99	
Satd. Flow (prot)	1736	1730			1701			1800			1886	
Flt Permitted	0.70	1.00			0.90			1.00			0.95	
Satd. Flow (perm)	1283	1730			1562			1800			1814	
Peak-hour factor, PHF	0.91	0.91	0.91	0.36	0.36	0.36	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	341	66	88	28	0	56	0	230	46	11	65	0
RTOR Reduction (vph)	0	50	0	0	32	0	0	13	0	0	0	0
Lane Group Flow (vph)	341	104	0	0	52	0	0	263	0	0	76	0
Heavy Vehicles (%)	4%	1%	0%	0%	0%	0%	0%	3%	4%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA			NA		Perm	NA	
Protected Phases		2			6			4			4	
Permitted Phases	2			6						4		
Actuated Green, G (s)	25.0	25.0			25.2			25.0			25.0	
Effective Green, g (s)	25.0	25.0			25.2			25.0			25.0	
Actuated g/C Ratio	0.43	0.43			0.43			0.43			0.43	
Clearance Time (s)	4.2	4.2			4.0			4.2			4.2	
Lane Grp Cap (vph)	549	740			674			770			776	
v/s Ratio Prot		0.06						c0.15				
v/s Ratio Perm	c0.27				0.03						0.04	
v/c Ratio	0.62	0.14			0.08			0.34			0.10	
Uniform Delay, d1	13.0	10.2			9.8			11.2			10.0	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	5.2	0.4			0.2			1.2			0.3	
Delay (s)	18.2	10.6			10.0			12.4			10.2	
Level of Service	B	B			A			B			B	
Approach Delay (s)		15.8			10.0			12.4			10.2	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	58.4	Sum of lost time (s)	8.4
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	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	160	410	40	60	450	60	20	50	70	130	80	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.1	4.2		4.1	4.2		4.2	4.2		4.2	4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.98		1.00	0.91		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1736	3407		1805	3375		1805	1647		1671	1792	1538
Flt Permitted	0.95	1.00		0.95	1.00		0.69	1.00		0.57	1.00	1.00
Satd. Flow (perm)	1736	3407		1805	3375		1315	1647		999	1792	1538
Peak-hour factor, PHF	1.00	1.00	1.00	0.87	0.87	0.87	0.70	0.70	0.70	0.80	0.80	0.80
Adj. Flow (vph)	160	410	40	69	517	69	29	71	100	162	100	88
RTOR Reduction (vph)	0	7	0	0	13	0	0	71	0	0	0	69
Lane Group Flow (vph)	160	443	0	69	573	0	29	100	0	162	100	19
Heavy Vehicles (%)	4%	5%	0%	0%	4%	13%	0%	0%	9%	8%	6%	5%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	3	8		7	4			6			2	
Permitted Phases							6			2		2
Actuated Green, G (s)	17.3	40.7		6.4	29.8		16.4	16.4		16.4	16.4	16.4
Effective Green, g (s)	17.3	40.7		6.4	29.8		16.4	16.4		16.4	16.4	16.4
Actuated g/C Ratio	0.23	0.54		0.08	0.39		0.22	0.22		0.22	0.22	0.22
Clearance Time (s)	4.1	4.2		4.1	4.2		4.2	4.2		4.2	4.2	4.2
Vehicle Extension (s)	2.0	6.0		2.0	6.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	395	1824		152	1323		283	355		215	386	331
v/s Ratio Prot	c0.09	0.13		0.04	c0.17			0.06			0.06	
v/s Ratio Perm							0.02			c0.16		0.01
v/c Ratio	0.41	0.24		0.45	0.43		0.10	0.28		0.75	0.26	0.06
Uniform Delay, d1	25.0	9.4		33.1	16.9		23.9	24.9		27.9	24.8	23.7
Progression Factor	1.00	1.00		1.08	1.03		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.1	0.3		0.8	1.0		0.2	0.6		14.7	0.5	0.1
Delay (s)	28.0	9.7		36.6	18.3		24.1	25.5		42.6	25.2	23.8
Level of Service	C	A		D	B		C	C		D	C	C
Approach Delay (s)		14.5			20.3			25.3			32.9	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

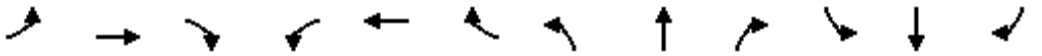
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	630	70	270	590	60	80	30	60	60	30	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.99		1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3455		1770	3370		1770	1677		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	3455		1770	3370		1770	1677		1770	1863	1583
Peak-hour factor, PHF	0.74	0.74	0.74	0.87	0.87	0.87	0.84	0.84	0.84	0.83	0.83	0.83
Adj. Flow (vph)	27	851	95	310	678	69	95	36	71	72	36	24
RTOR Reduction (vph)	0	9	0	0	6	0	0	62	0	0	0	22
Lane Group Flow (vph)	27	937	0	310	741	0	95	45	0	72	36	2
Heavy Vehicles (%)	2%	3%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	2.8	24.7		18.7	40.6		9.6	9.6		6.6	6.6	6.6
Effective Green, g (s)	2.8	24.7		18.7	40.6		9.6	9.6		6.6	6.6	6.6
Actuated g/C Ratio	0.04	0.32		0.25	0.53		0.13	0.13		0.09	0.09	0.09
Clearance Time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	4.2
Vehicle Extension (s)	2.0	6.0		2.0	6.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	65	1122		435	1800		223	211		153	161	137
v/s Ratio Prot	0.02	c0.27		c0.18	0.22		c0.05	c0.03		0.04	0.02	
v/s Ratio Perm												0.00
v/c Ratio	0.42	0.84		0.71	0.41		0.43	0.21		0.47	0.22	0.02
Uniform Delay, d1	35.8	23.8		26.2	10.6		30.7	29.8		33.0	32.3	31.7
Progression Factor	1.16	0.99		1.04	0.97		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.5	7.3		4.0	0.6		0.5	0.2		0.8	0.3	0.0
Delay (s)	43.2	30.9		31.1	10.9		31.1	30.0		33.9	32.6	31.7
Level of Service	D	C		C	B		C	C		C	C	C
Approach Delay (s)		31.3			16.8			30.5			33.1	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	24.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	16.4
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		

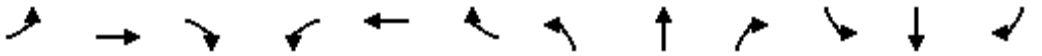
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	640	100	210	380	0	0	0	0	550	180	540
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		5.2	5.2					4.7	4.7	4.7
Lane Util. Factor		0.95		1.00	0.95					0.91	0.86	0.91
Frt		0.98		1.00	1.00					1.00	0.94	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.98	1.00
Satd. Flow (prot)		3438		1770	3406					1610	2971	1441
Flt Permitted		1.00		0.95	1.00					0.95	0.98	1.00
Satd. Flow (perm)		3438		1770	3406					1610	2971	1441
Peak-hour factor, PHF	0.74	0.74	0.74	0.87	0.87	0.87	0.92	0.92	0.92	0.76	0.76	0.76
Adj. Flow (vph)	0	865	135	241	437	0	0	0	0	724	237	711
RTOR Reduction (vph)	0	16	0	0	0	0	0	0	0	0	88	276
Lane Group Flow (vph)	0	984	0	241	437	0	0	0	0	434	759	115
Heavy Vehicles (%)	2%	3%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Actuated Green, G (s)		26.8		11.8	43.8					22.3	22.3	22.3
Effective Green, g (s)		26.8		11.8	43.8					22.3	22.3	22.3
Actuated g/C Ratio		0.35		0.16	0.58					0.29	0.29	0.29
Clearance Time (s)		5.2		5.2	5.2					4.7	4.7	4.7
Vehicle Extension (s)		0.2		2.0	0.2					6.2	6.2	6.2
Lane Grp Cap (vph)		1212		274	1962					472	871	422
v/s Ratio Prot		c0.29		c0.14	0.13							
v/s Ratio Perm										c0.27	0.26	0.08
v/c Ratio		0.81		0.88	0.22					0.92	0.87	0.27
Uniform Delay, d1		22.3		31.4	7.8					26.0	25.5	20.6
Progression Factor		0.65		0.81	0.38					1.00	1.00	1.00
Incremental Delay, d2		4.4		22.8	0.2					24.7	10.7	1.0
Delay (s)		19.0		48.3	3.2					50.7	36.2	21.7
Level of Service		B		D	A					D	D	C
Approach Delay (s)		19.0			19.3			0.0			36.6	
Approach LOS		B			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	27.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	96.2%	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)	300	890	0	0	490	350	100	360	620	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.7	5.2			5.2	5.2		5.4	5.4			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.91	0.91			
Frt	1.00	1.00			1.00	0.85		0.94	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)	1770	3505			3406	1583		3177	1441			
Flt Permitted	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (perm)	1770	3505			3406	1583		3177	1441			
Peak-hour factor, PHF	0.95	0.95	0.95	0.92	0.92	0.92	0.91	0.91	0.91	0.92	0.92	0.92
Adj. Flow (vph)	316	937	0	0	533	380	110	396	681	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	98	0	102	102	0	0	0
Lane Group Flow (vph)	316	937	0	0	533	282	0	710	273	0	0	0
Heavy Vehicles (%)	2%	3%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	15.3	45.6			26.6	26.6		19.8	19.8			
Effective Green, g (s)	15.3	45.6			26.6	26.6		19.8	19.8			
Actuated g/C Ratio	0.20	0.60			0.35	0.35		0.26	0.26			
Clearance Time (s)	3.7	5.2			5.2	5.2		5.4	5.4			
Vehicle Extension (s)	2.0	0.2			0.2	0.2		5.0	5.0			
Lane Grp Cap (vph)	356	2103			1192	554		827	375			
v/s Ratio Prot	c0.18	0.27			0.16							
v/s Ratio Perm						c0.18		0.22	0.19			
v/c Ratio	0.89	0.45			0.45	0.51		0.86	0.73			
Uniform Delay, d1	29.5	8.3			19.0	19.5		26.8	25.6			
Progression Factor	1.03	0.32			1.00	1.00		1.00	1.00			
Incremental Delay, d2	12.3	0.3			1.2	3.3		9.6	8.4			
Delay (s)	42.6	3.0			20.2	22.8		36.4	34.1			
Level of Service	D	A			C	C		D	C			
Approach Delay (s)		13.0			21.3			35.7			0.0	
Approach LOS		B			C			D			A	

Intersection Summary			
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	14.3
Intersection Capacity Utilization	96.2%	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)	270	1080	150	10	600	40	100	40	20	30	40	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frt	1.00	0.98		1.00	0.99			0.98			0.90	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.99	
Satd. Flow (prot)	1770	3437		1805	3311			3290			2968	
Flt Permitted	0.36	1.00		0.13	1.00			0.70			0.89	
Satd. Flow (perm)	662	3437		248	3311			2367			2647	
Peak-hour factor, PHF	0.88	0.88	0.88	0.86	0.86	0.86	0.88	0.88	0.88	0.86	0.86	0.86
Adj. Flow (vph)	307	1227	170	12	698	47	114	45	23	35	47	163
RTOR Reduction (vph)	0	10	0	0	5	0	0	12	0	0	83	0
Lane Group Flow (vph)	307	1387	0	12	740	0	0	170	0	0	162	0
Heavy Vehicles (%)	2%	3%	4%	0%	8%	8%	7%	0%	0%	13%	8%	8%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	30.7	30.7		30.7	30.7			12.2			12.2	
Effective Green, g (s)	30.7	30.7		30.7	30.7			12.2			12.2	
Actuated g/C Ratio	0.58	0.58		0.58	0.58			0.23			0.23	
Clearance Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	381	1979		142	1907			541			605	
v/s Ratio Prot		0.40			0.22							
v/s Ratio Perm	c0.46			0.05				c0.07			0.06	
v/c Ratio	0.81	0.70		0.08	0.39			0.31			0.27	
Uniform Delay, d1	8.9	8.0		5.0	6.2			17.1			16.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	11.7	1.1		0.3	0.1			0.3			0.2	
Delay (s)	20.7	9.2		5.3	6.3			17.4			17.1	
Level of Service	C	A		A	A			B			B	
Approach Delay (s)		11.2			6.3			17.4			17.1	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	53.3	Sum of lost time (s)	10.4
Intersection Capacity Utilization	72.0%	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	950	130	0	430	40	80	180	210	80	280	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2			4.2	4.2		4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95	1.00		0.95		1.00	0.95	
Frt		0.98			1.00	0.85		0.93		1.00	0.97	
Flt Protected		1.00			1.00	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		3445			3539	1583		3274		1770	3433	
Flt Permitted		1.00			1.00	1.00		0.79		0.36	1.00	
Satd. Flow (perm)		3445			3539	1583		2599		677	3433	
Peak-hour factor, PHF	0.78	0.78	0.78	0.90	0.90	0.90	0.77	0.77	0.77	0.75	0.75	0.75
Adj. Flow (vph)	0	1218	167	0	478	44	104	234	273	107	373	93
RTOR Reduction (vph)	0	12	0	0	0	25	0	5	0	0	35	0
Lane Group Flow (vph)	0	1373	0	0	478	19	0	606	0	107	431	0
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA			NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases						2	4			4		
Actuated Green, G (s)		33.3			33.3	33.3		34.0		34.0	34.0	
Effective Green, g (s)		33.3			33.3	33.3		34.0		34.0	34.0	
Actuated g/C Ratio		0.44			0.44	0.44		0.45		0.45	0.45	
Clearance Time (s)		4.2			4.2	4.2		4.5		4.5	4.5	
Vehicle Extension (s)		5.0			5.0	5.0		2.0		2.0	2.0	
Lane Grp Cap (vph)		1509			1550	693		1162		302	1535	
v/s Ratio Prot		c0.40			0.14						0.13	
v/s Ratio Perm						0.01		c0.23		0.16		
v/c Ratio		0.91			0.31	0.03		0.52		0.35	0.28	
Uniform Delay, d1		19.9			13.9	12.1		15.1		13.8	13.3	
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		9.7			0.5	0.1		0.2		0.3	0.0	
Delay (s)		29.6			14.4	12.2		15.3		14.1	13.3	
Level of Service		C			B	B		B		B	B	
Approach Delay (s)		29.6			14.2			15.3			13.4	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	8.7
Intersection Capacity Utilization	98.1%	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)	150	610	100	120	430	130	160	320	190	130	240	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.97		1.00	0.94		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3465		1770	3442		1770	1758		1770	1807	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3465		1770	3442		1770	1758		1770	1807	
Peak-hour factor, PHF	0.96	0.96	0.96	0.80	0.80	0.80	0.85	0.85	0.85	0.84	0.84	0.84
Adj. Flow (vph)	156	635	104	150	538	162	188	376	224	155	286	71
RTOR Reduction (vph)	0	12	0	0	25	0	0	17	0	0	8	0
Lane Group Flow (vph)	156	727	0	150	675	0	188	583	0	155	349	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	15.0	29.1		14.7	28.8		12.8	37.2		13.8	38.2	
Effective Green, g (s)	15.0	29.1		14.7	28.8		12.8	37.2		13.8	38.2	
Actuated g/C Ratio	0.13	0.26		0.13	0.26		0.11	0.33		0.12	0.34	
Clearance Time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Vehicle Extension (s)	3.0	5.0		3.0	5.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	237	900		232	885		202	583		218	616	
v/s Ratio Prot	c0.09	c0.21		0.08	0.20		c0.11	c0.33		0.09	0.19	
v/s Ratio Perm												
v/c Ratio	0.66	0.81		0.65	0.76		0.93	1.00		0.71	0.57	
Uniform Delay, d1	46.1	38.8		46.2	38.4		49.2	37.4		47.2	30.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.5	6.1		6.1	4.6		44.0	37.1		10.4	3.7	
Delay (s)	52.5	45.0		52.3	43.1		93.2	74.5		57.6	33.9	
Level of Service	D	D		D	D		F	E		E	C	
Approach Delay (s)		46.3			44.7			79.0			41.1	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	53.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	112.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	76.7%	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)	10	560	40	120	600	10	150	50	10	120	120	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2		5.2	5.2		5.2	5.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3504		1770	3565		1770	1815		1770	1781	
Flt Permitted	0.40	1.00		0.34	1.00		0.56	1.00		0.71	1.00	
Satd. Flow (perm)	743	3504		629	3565		1039	1815		1331	1781	
Peak-hour factor, PHF	0.77	0.77	0.77	0.94	0.94	0.94	0.92	0.92	0.92	0.80	0.80	0.80
Adj. Flow (vph)	13	727	52	128	638	11	163	54	11	150	150	62
RTOR Reduction (vph)	0	5	0	0	1	0	0	9	0	0	33	0
Lane Group Flow (vph)	13	774	0	128	648	0	163	56	0	150	179	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			8			4	
Permitted Phases	2			2			8			4		
Actuated Green, G (s)	40.4	40.4		40.4	40.4		14.6	14.6		14.6	14.6	
Effective Green, g (s)	40.4	40.4		40.4	40.4		14.6	14.6		14.6	14.6	
Actuated g/C Ratio	0.62	0.62		0.62	0.62		0.22	0.22		0.22	0.22	
Clearance Time (s)	5.2	5.2		5.2	5.2		5.2	5.2		5.2	5.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	458	2164		388	2202		231	405		297	397	
v/s Ratio Prot		c0.22			0.18			0.03			0.10	
v/s Ratio Perm	0.02			0.20			c0.16			0.11		
v/c Ratio	0.03	0.36		0.33	0.29		0.71	0.14		0.51	0.45	
Uniform Delay, d1	4.9	6.1		6.0	5.8		23.4	20.4		22.2	21.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	0.5		2.3	0.3		9.4	0.2		1.4	0.8	
Delay (s)	5.0	6.6		8.3	6.2		32.8	20.5		23.6	22.8	
Level of Service	A	A		A	A		C	C		C	C	
Approach Delay (s)		6.6			6.5			29.3			23.1	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	65.4	Sum of lost time (s)	10.4
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	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	290	90	100	670	50	50	70	40	50	210	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2		5.2	5.2		5.2	5.2	5.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.99		1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1421	3452		1770	3539		1805	1797		1719	1743	1482
Flt Permitted	0.25	1.00		0.50	1.00		0.58	1.00		0.68	1.00	1.00
Satd. Flow (perm)	372	3452		926	3539		1109	1797		1228	1743	1482
Peak-hour factor, PHF	0.90	0.90	0.95	0.95	0.95	0.95	0.90	0.90	0.90	0.76	0.76	0.76
Adj. Flow (vph)	33	322	95	105	705	53	56	78	44	66	276	92
RTOR Reduction (vph)	0	45	0	0	9	0	0	22	0	0	0	46
Lane Group Flow (vph)	33	372	0	105	749	0	56	100	0	66	276	46
Heavy Vehicles (%)	27%	1%	1%	2%	1%	0%	0%	0%	0%	5%	9%	9%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	20.1	20.1		20.1	20.1		30.2	30.2		30.2	30.2	30.2
Effective Green, g (s)	20.1	20.1		20.1	20.1		30.2	30.2		30.2	30.2	30.2
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.50	0.50		0.50	0.50	0.50
Clearance Time (s)	5.2	5.2		5.2	5.2		5.2	5.2		5.2	5.2	5.2
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	123	1143		306	1171		551	894		610	867	737
v/s Ratio Prot		0.11			c0.21			0.06			c0.16	
v/s Ratio Perm	0.09			0.11			0.05			0.05		0.03
v/c Ratio	0.27	0.33		0.34	0.64		0.10	0.11		0.11	0.32	0.06
Uniform Delay, d1	14.9	15.2		15.3	17.2		8.1	8.1		8.1	9.1	7.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.6	0.2		0.9	1.3		0.1	0.1		0.4	1.0	0.2
Delay (s)	16.5	15.4		16.2	18.5		8.2	8.2		8.5	10.1	8.1
Level of Service	B	B		B	B		A	A		A	B	A
Approach Delay (s)		15.5			18.2			8.2			9.4	
Approach LOS		B			B			A			A	

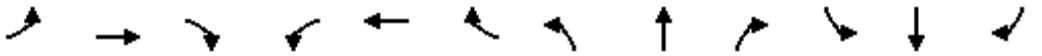
Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	60.7	Sum of lost time (s)	10.4
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	320	10	30	720	110	50	140	40	110	30	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2			5.2			4.0		5.0	5.0	
Lane Util. Factor	1.00	0.95			0.95			0.95		1.00	1.00	
Frt	1.00	1.00			0.98			0.97		1.00	0.96	
Flt Protected	0.95	1.00			1.00			0.99		0.95	1.00	
Satd. Flow (prot)	1770	3557			3465			3410		1770	1793	
Flt Permitted	0.20	1.00			0.93			0.89		0.56	1.00	
Satd. Flow (perm)	369	3557			3236			3066		1052	1793	
Peak-hour factor, PHF	0.97	0.97	0.97	0.88	0.88	0.88	0.75	0.75	0.75	0.92	0.92	0.92
Adj. Flow (vph)	41	330	10	34	818	125	67	187	53	120	33	11
RTOR Reduction (vph)	0	3	0	0	18	0	0	26	0	0	7	0
Lane Group Flow (vph)	41	337	0	0	959	0	0	281	0	120	37	0
Heavy Vehicles (%)	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			6	
Permitted Phases	4			4			2			6		
Actuated Green, G (s)	28.8	28.8			28.8			27.2		26.2	26.2	
Effective Green, g (s)	28.8	28.8			28.8			27.2		26.2	26.2	
Actuated g/C Ratio	0.44	0.44			0.44			0.42		0.40	0.40	
Clearance Time (s)	5.2	5.2			5.2			4.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	162	1571			1429			1279		422	720	
v/s Ratio Prot		0.09									0.02	
v/s Ratio Perm	0.11				c0.30			0.09		c0.11		
v/c Ratio	0.25	0.21			0.67			0.22		0.28	0.05	
Uniform Delay, d1	11.4	11.2			14.4			12.2		13.2	11.9	
Progression Factor	1.00	1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2	0.8	0.1			1.3			0.4		0.4	0.0	
Delay (s)	12.3	11.3			15.7			12.6		13.5	11.9	
Level of Service	B	B			B			B		B	B	
Approach Delay (s)		11.4			15.7			12.6			13.1	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	65.2	Sum of lost time (s)	10.2
Intersection Capacity Utilization	82.8%	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)	10	70	10	560	110	380	40	200	240	240	270	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6		4.6	4.6	4.6	4.0	4.6	4.6	4.0	4.6	4.6
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1828		1681	1712	1583	1770	1863	1583	1770	3539	1583
Flt Permitted	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1828		1681	1712	1583	1770	1863	1583	1770	3539	1583
Peak-hour factor, PHF	0.59	0.59	0.59	0.87	0.87	0.87	0.89	0.89	0.89	0.88	0.88	0.88
Adj. Flow (vph)	17	119	17	644	126	437	45	225	270	273	307	23
RTOR Reduction (vph)	0	6	0	0	0	308	0	0	143	0	0	16
Lane Group Flow (vph)	17	130	0	380	390	129	45	225	127	273	307	7
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	8	8		4	4		1	6	4	5	2	
Permitted Phases						4			6			2
Actuated Green, G (s)	12.8	12.8		24.9	24.9	24.9	2.3	14.9	39.8	14.1	26.7	26.7
Effective Green, g (s)	12.8	12.8		24.9	24.9	24.9	2.3	14.9	39.8	14.1	26.7	26.7
Actuated g/C Ratio	0.15	0.15		0.29	0.29	0.29	0.03	0.18	0.47	0.17	0.32	0.32
Clearance Time (s)	4.6	4.6		4.6	4.6	4.6	4.0	4.6	4.6	4.0	4.6	4.6
Vehicle Extension (s)	3.0	3.0		3.5	3.5	3.5	2.0	4.8	3.5	3.0	4.8	4.8
Lane Grp Cap (vph)	268	276		495	504	466	48	328	831	295	1118	500
v/s Ratio Prot	0.01	c0.07		0.23	c0.23		0.03	c0.12	0.05	c0.15	0.09	
v/s Ratio Perm						0.08			0.04			0.00
v/c Ratio	0.06	0.47		0.77	0.77	0.28	0.94	0.69	0.15	0.93	0.27	0.01
Uniform Delay, d1	30.7	32.8		27.2	27.2	22.9	41.0	32.6	12.7	34.7	21.6	19.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	1.3		7.2	7.5	0.4	104.4	7.2	0.1	33.2	0.3	0.0
Delay (s)	30.8	34.0		34.4	34.7	23.3	145.4	39.8	12.8	67.9	21.9	19.9
Level of Service	C	C		C	C	C	F	D	B	E	C	B
Approach Delay (s)		33.7			30.5			35.1			42.6	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	34.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	84.5	Sum of lost time (s)	17.8
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	370	50	100	280	100	60	420	80	80	220	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.98		1.00	0.96			0.98			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	1830		1770	1789			3445			3462	
Flt Permitted	0.34	1.00		0.23	1.00			0.87			0.72	
Satd. Flow (perm)	641	1830		424	1789			3011			2519	
Peak-hour factor, PHF	0.86	0.86	0.86	0.96	0.96	0.96	0.83	0.83	0.83	0.78	0.78	0.78
Adj. Flow (vph)	93	430	58	104	292	104	72	506	96	103	282	26
RTOR Reduction (vph)	0	9	0	0	22	0	0	23	0	0	9	0
Lane Group Flow (vph)	93	479	0	104	374	0	0	651	0	0	402	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	19.0	19.0		19.0	19.0			30.0			30.0	
Effective Green, g (s)	19.0	19.0		19.0	19.0			30.0			30.0	
Actuated g/C Ratio	0.33	0.33		0.33	0.33			0.52			0.52	
Clearance Time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Lane Grp Cap (vph)	212	605		140	592			1573			1316	
v/s Ratio Prot		c0.26			0.21							
v/s Ratio Perm	0.15			0.25				c0.22			0.16	
v/c Ratio	0.44	0.79		0.74	0.63			0.41			0.31	
Uniform Delay, d1	15.0	17.4		17.0	16.2			8.3			7.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	6.5	10.2		29.6	5.1			0.8			0.6	
Delay (s)	21.5	27.6		46.6	21.3			9.1			8.4	
Level of Service	C	C		D	C			A			A	
Approach Delay (s)		26.7			26.6			9.1			8.4	
Approach LOS		C			C			A			A	

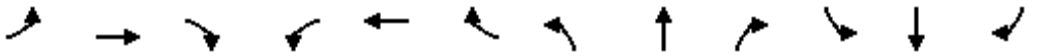
Intersection Summary			
HCM 2000 Control Delay	17.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	57.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	102.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	340	80	40	340	250	60	260	50	120	230	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.94		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3438		1770	3314		1770	1818		1770	1863	1583
Flt Permitted	0.32	1.00		0.44	1.00		0.51	1.00		0.46	1.00	1.00
Satd. Flow (perm)	601	3438		814	3314		947	1818		852	1863	1583
Peak-hour factor, PHF	0.82	0.82	0.82	0.84	0.84	0.84	0.87	0.87	0.87	0.74	0.74	0.74
Adj. Flow (vph)	146	415	98	48	405	298	69	299	57	162	311	122
RTOR Reduction (vph)	0	36	0	0	167	0	0	12	0	0	0	73
Lane Group Flow (vph)	146	477	0	48	536	0	69	344	0	162	311	49
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	25.0	25.0		25.0	25.0		23.0	23.0		23.0	23.0	23.0
Effective Green, g (s)	25.0	25.0		25.0	25.0		23.0	23.0		23.0	23.0	23.0
Actuated g/C Ratio	0.44	0.44		0.44	0.44		0.41	0.41		0.41	0.41	0.41
Clearance Time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	264	1515		358	1461		384	737		345	755	642
v/s Ratio Prot		0.14			0.16			0.19			0.17	
v/s Ratio Perm	c0.24			0.06			0.07			c0.19		0.03
v/c Ratio	0.55	0.31		0.13	0.37		0.18	0.47		0.47	0.41	0.08
Uniform Delay, d1	11.7	10.3		9.4	10.6		10.8	12.4		12.4	12.0	10.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	8.1	0.5		0.8	0.7		1.0	2.1		4.5	1.7	0.2
Delay (s)	19.8	10.8		10.2	11.3		11.8	14.5		16.9	13.7	10.6
Level of Service	B	B		B	B		B	B		B	B	B
Approach Delay (s)		12.8			11.2			14.0			13.9	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	56.7	Sum of lost time (s)	8.7
Intersection Capacity Utilization	94.5%	ICU Level of Service	F
Analysis Period (min)	15		

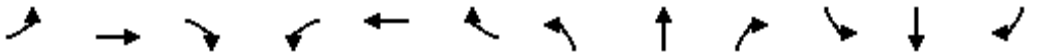
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	410	30	50	570	190	70	380	60	140	320	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.96		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3503		1770	3432		1770	1825		1770	1801	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3503		1770	3432		1770	1825		1770	1801	
Peak-hour factor, PHF	0.74	0.74	0.74	0.74	0.74	0.74	0.89	0.89	0.89	0.96	0.96	0.96
Adj. Flow (vph)	108	554	41	68	770	257	79	427	67	146	333	94
RTOR Reduction (vph)	0	5	0	0	31	0	0	5	0	0	9	0
Lane Group Flow (vph)	108	590	0	68	996	0	79	489	0	146	418	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	8.4	26.4		6.6	24.6		7.2	29.8		11.5	34.1	
Effective Green, g (s)	8.4	26.4		6.6	24.6		7.2	29.8		11.5	34.1	
Actuated g/C Ratio	0.09	0.29		0.07	0.27		0.08	0.33		0.13	0.38	
Clearance Time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	5.0		2.0	5.0	
Lane Grp Cap (vph)	163	1019		128	930		140	599		224	677	
v/s Ratio Prot	c0.06	0.17		0.04	c0.29		0.04	c0.27		c0.08	0.23	
v/s Ratio Perm												
v/c Ratio	0.66	0.58		0.53	1.07		0.56	0.82		0.65	0.62	
Uniform Delay, d1	39.8	27.4		40.6	33.0		40.2	27.9		37.7	23.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	7.6	1.3		2.1	50.6		3.1	9.5		5.1	2.4	
Delay (s)	47.4	28.7		42.7	83.6		43.3	37.4		42.8	25.4	
Level of Service	D	C		D	F		D	D		D	C	
Approach Delay (s)		31.6			81.1			38.2			29.9	
Approach LOS		C			F			D			C	

Intersection Summary			
HCM 2000 Control Delay	50.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.7	Sum of lost time (s)	16.4
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	330	60	90	610	160	90	120	120	110	250	190
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	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.97		1.00	0.93		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3457		1770	3456		1770	1723		1770	1742	
Flt Permitted	0.25	1.00		0.48	1.00		0.29	1.00		0.54	1.00	
Satd. Flow (perm)	464	3457		889	3456		538	1723		1004	1742	
Peak-hour factor, PHF	0.86	0.86	0.86	0.91	0.91	0.91	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	12	384	70	99	670	176	106	141	141	129	294	224
RTOR Reduction (vph)	0	25	0	0	39	0	0	60	0	0	46	0
Lane Group Flow (vph)	12	429	0	99	807	0	106	222	0	129	472	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	26.1	26.1		26.1	26.1		24.9	24.9		24.9	24.9	
Effective Green, g (s)	26.1	26.1		26.1	26.1		24.9	24.9		24.9	24.9	
Actuated g/C Ratio	0.44	0.44		0.44	0.44		0.41	0.41		0.41	0.41	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Grp Cap (vph)	201	1503		386	1503		223	715		416	722	
v/s Ratio Prot		0.12			c0.23			0.13			c0.27	
v/s Ratio Perm	0.03			0.11			0.20			0.13		
v/c Ratio	0.06	0.29		0.26	0.54		0.48	0.31		0.31	0.65	
Uniform Delay, d1	9.8	10.9		10.8	12.5		12.8	11.8		11.8	14.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	0.5		1.6	1.4		7.1	1.1		1.9	4.6	
Delay (s)	10.4	11.4		12.4	13.9		19.9	12.9		13.7	18.7	
Level of Service	B	B		B	B		B	B		B	B	
Approach Delay (s)		11.4			13.7			14.8			17.7	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	99.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

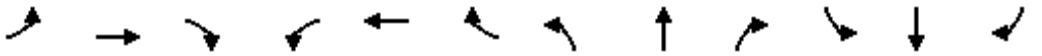
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	330	40	130	1020	70	10	160	30	70	100	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.2			4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	1.00
Frt	1.00	0.98		1.00	0.99			0.98			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.98	1.00
Satd. Flow (prot)	1736	3400		1805	3542			1842			1839	1404
Flt Permitted	0.14	1.00		0.46	1.00			0.99			0.82	1.00
Satd. Flow (perm)	252	3400		883	3542			1820			1534	1404
Peak-hour factor, PHF	0.77	0.77	0.77	0.88	0.88	0.88	0.89	0.89	0.89	0.86	0.86	0.86
Adj. Flow (vph)	39	429	52	148	1159	80	11	180	34	81	116	93
RTOR Reduction (vph)	0	16	0	0	9	0	0	11	0	0	0	28
Lane Group Flow (vph)	39	465	0	148	1230	0	0	214	0	0	197	65
Heavy Vehicles (%)	4%	5%	0%	0%	1%	0%	0%	1%	0%	3%	0%	15%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	29.0	29.0		29.0	29.0			22.0			22.0	22.0
Effective Green, g (s)	29.0	29.0		29.0	29.0			22.0			22.0	22.0
Actuated g/C Ratio	0.49	0.49		0.49	0.49			0.37			0.37	0.37
Clearance Time (s)	4.2	4.2		4.2	4.2			4.2			4.2	4.2
Lane Grp Cap (vph)	123	1659		431	1729			674			568	520
v/s Ratio Prot		0.14			c0.35							
v/s Ratio Perm	0.15			0.17				0.12			c0.13	0.05
v/c Ratio	0.32	0.28		0.34	0.71			0.32			0.35	0.12
Uniform Delay, d1	9.2	9.0		9.3	11.9			13.3			13.5	12.3
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	6.7	0.4		2.2	2.5			1.2			1.7	0.5
Delay (s)	15.9	9.4		11.5	14.4			14.6			15.2	12.8
Level of Service	B	A		B	B			B			B	B
Approach Delay (s)		9.9			14.1			14.6			14.4	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	100.6%	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)	50	370	10	10	1170	110	40	150	50	30	40	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2	4.2	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
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	3427		1770	3539	1583	1770	1863	1583	1770	1806	
Flt Permitted	0.12	1.00		0.49	1.00	1.00	0.72	1.00	1.00	0.60	1.00	
Satd. Flow (perm)	229	3427		909	3539	1583	1345	1863	1583	1118	1806	
Peak-hour factor, PHF	0.83	0.83	0.83	0.80	0.80	0.80	0.82	0.82	0.82	0.92	0.92	0.92
Adj. Flow (vph)	60	446	12	12	1462	138	49	183	61	33	43	11
RTOR Reduction (vph)	0	2	0	0	0	30	0	0	48	0	9	0
Lane Group Flow (vph)	60	456	0	12	1462	108	49	183	13	33	45	0
Heavy Vehicles (%)	2%	5%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		8			4			6			6	
Permitted Phases	8			4		4	6		6	6		
Actuated Green, G (s)	34.1	34.1		34.1	34.1	34.1	12.0	12.0	12.0	12.0	12.0	
Effective Green, g (s)	34.1	34.1		34.1	34.1	34.1	12.0	12.0	12.0	12.0	12.0	
Actuated g/C Ratio	0.63	0.63		0.63	0.63	0.63	0.22	0.22	0.22	0.22	0.22	
Clearance Time (s)	4.2	4.2		4.2	4.2	4.2	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	143	2152		570	2222	994	297	411	349	247	399	
v/s Ratio Prot		0.13			c0.41			c0.10			0.03	
v/s Ratio Perm	0.26			0.01		0.07	0.04		0.01	0.03		
v/c Ratio	0.42	0.21		0.02	0.66	0.11	0.16	0.45	0.04	0.13	0.11	
Uniform Delay, d1	5.1	4.3		3.8	6.4	4.0	17.1	18.3	16.6	17.0	16.9	
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	4.1	0.1		0.0	1.0	0.1	0.3	0.8	0.0	0.2	0.1	
Delay (s)	9.2	4.4		3.8	7.4	4.1	17.4	19.0	16.7	17.2	17.0	
Level of Service	A	A		A	A	A	B	B	B	B	B	
Approach Delay (s)		5.0			7.1			18.3			17.1	
Approach LOS		A			A			B			B	

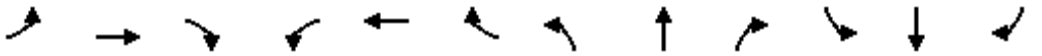
Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	54.3	Sum of lost time (s)	8.2
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



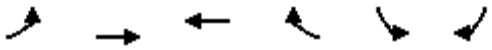
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	410	50	170	1320	180	0	0	0	40	90	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6		4.6	4.6						4.6	4.6
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frt	1.00	0.98		1.00	0.98						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.98	1.00
Satd. Flow (prot)	1770	3482		1770	3475						1835	1583
Flt Permitted	0.09	1.00		0.47	1.00						0.98	1.00
Satd. Flow (perm)	172	3482		882	3475						1835	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.87	0.87	0.87	0.92	0.92	0.92	0.74	0.74	0.74
Adj. Flow (vph)	32	436	53	195	1517	207	0	0	0	54	122	54
RTOR Reduction (vph)	0	8	0	0	9	0	0	0	0	0	0	21
Lane Group Flow (vph)	32	481	0	195	1715	0	0	0	0	0	176	33
Turn Type	Perm	NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases	2			6						4		4
Actuated Green, G (s)	53.2	53.2		53.2	53.2						12.6	12.6
Effective Green, g (s)	53.2	53.2		53.2	53.2						12.6	12.6
Actuated g/C Ratio	0.71	0.71		0.71	0.71						0.17	0.17
Clearance Time (s)	4.6	4.6		4.6	4.6						4.6	4.6
Vehicle Extension (s)	4.1	4.1		4.1	4.1						0.2	0.2
Lane Grp Cap (vph)	122	2469		625	2464						308	265
v/s Ratio Prot		0.14			c0.49							
v/s Ratio Perm	0.19			0.22							0.10	0.02
v/c Ratio	0.26	0.19		0.31	0.70						0.57	0.13
Uniform Delay, d1	3.9	3.7		4.1	6.3						28.7	26.5
Progression Factor	1.00	1.00		0.75	0.73						1.00	1.00
Incremental Delay, d2	5.2	0.2		0.9	1.1						1.6	0.1
Delay (s)	9.1	3.9		3.9	5.7						30.3	26.6
Level of Service	A	A		A	A						C	C
Approach Delay (s)		4.2			5.5			0.0			29.4	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	69.0%	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	530	10	0	370	0	0	0	0	460	1020	880
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.1			4.1					4.6	4.6	4.6
Lane Util. Factor		0.95			0.95					0.91	0.86	0.91
Frt		1.00			1.00					1.00	0.97	0.85
Flt Protected		1.00			1.00					0.95	1.00	1.00
Satd. Flow (prot)		3529			3539					1610	3098	1441
Flt Permitted		1.00			1.00					0.95	1.00	1.00
Satd. Flow (perm)		3529			3539					1610	3098	1441
Peak-hour factor, PHF	0.86	0.86	0.86	0.72	0.72	0.72	0.92	0.92	0.92	0.91	0.91	0.91
Adj. Flow (vph)	0	616	12	0	514	0	0	0	0	505	1121	967
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	0	0	7	7
Lane Group Flow (vph)	0	626	0	0	514	0	0	0	0	454	1474	651
Turn Type		NA			NA					Split	NA	Perm
Protected Phases		2			6					4	4	
Permitted Phases												4
Actuated Green, G (s)		15.4			15.4					50.9	50.9	50.9
Effective Green, g (s)		15.4			15.4					50.9	50.9	50.9
Actuated g/C Ratio		0.21			0.21					0.68	0.68	0.68
Clearance Time (s)		4.1			4.1					4.6	4.6	4.6
Vehicle Extension (s)		4.1			3.5					4.0	4.0	4.0
Lane Grp Cap (vph)		724			726					1092	2102	977
v/s Ratio Prot		c0.18			0.15					0.28	c0.48	
v/s Ratio Perm												0.45
v/c Ratio		0.87			0.71					0.42	0.70	0.67
Uniform Delay, d1		28.8			27.7					5.4	7.4	7.1
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		13.1			5.8					0.4	1.2	1.9
Delay (s)		41.9			33.5					5.7	8.5	9.0
Level of Service		D			C					A	A	A
Approach Delay (s)		41.9			33.5			0.0			8.2	
Approach LOS		D			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	17.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.7
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

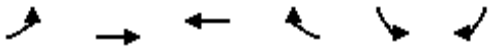


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱↱
Volume (vph)	0	450	640	0	0	1030
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.1	4.1			4.6
Lane Util. Factor		0.95	0.95			0.88
Frt		1.00	1.00			0.85
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		3539	3539			2787
Flt Permitted		1.00	1.00			1.00
Satd. Flow (perm)		3539	3539			2787
Peak-hour factor, PHF	0.89	0.89	0.77	0.77	0.85	0.85
Adj. Flow (vph)	0	506	831	0	0	1212
RTOR Reduction (vph)	0	0	0	0	0	36
Lane Group Flow (vph)	0	506	831	0	0	1176
Turn Type		NA	NA			Prot
Protected Phases		2 8	6			4
Permitted Phases						
Actuated Green, G (s)		28.7	28.7			37.6
Effective Green, g (s)		28.7	28.7			37.6
Actuated g/C Ratio		0.38	0.38			0.50
Clearance Time (s)			4.1			4.6
Vehicle Extension (s)			3.0			4.0
Lane Grp Cap (vph)		1354	1354			1397
v/s Ratio Prot		0.14	c0.23			c0.42
v/s Ratio Perm						
v/c Ratio		0.37	0.61			0.84
Uniform Delay, d1		16.7	18.7			16.1
Progression Factor		0.89	1.00			0.56
Incremental Delay, d2		0.2	2.1			3.9
Delay (s)		14.9	20.8			13.0
Level of Service		B	C			B
Approach Delay (s)		14.9	20.8		13.0	
Approach LOS		B	C		B	

Intersection Summary			
HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.3
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

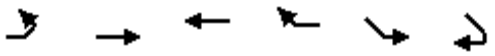
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	150	300	0	410	230	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0		4.6	4.6	4.6
Lane Util. Factor	0.91	0.91		0.95	1.00	1.00
Frt	0.93	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3136	1441		3539	1770	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3136	1441		3539	1770	1583
Peak-hour factor, PHF	0.83	0.83	0.75	0.75	0.82	0.82
Adj. Flow (vph)	181	361	0	547	280	244
RTOR Reduction (vph)	127	0	0	0	0	101
Lane Group Flow (vph)	235	180	0	547	280	143
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	6			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	24.1	80.6		24.1	47.3	47.3
Effective Green, g (s)	24.1	80.6		24.1	47.3	47.3
Actuated g/C Ratio	0.30	1.00		0.30	0.59	0.59
Clearance Time (s)	4.6			4.6	4.6	4.6
Vehicle Extension (s)	3.0			3.0	2.0	2.0
Lane Grp Cap (vph)	937	1441		1058	1038	928
v/s Ratio Prot	0.07			c0.15	c0.16	
v/s Ratio Perm		0.12				0.09
v/c Ratio	0.25	0.12		0.52	0.27	0.15
Uniform Delay, d1	21.4	0.0		23.4	8.2	7.6
Progression Factor	1.00	1.00		1.11	1.00	1.00
Incremental Delay, d2	0.1	0.2		0.3	0.1	0.0
Delay (s)	21.6	0.2		26.3	8.2	7.6
Level of Service	C	A		C	A	A
Approach Delay (s)	14.5			26.3	7.9	
Approach LOS	B			C	A	

Intersection Summary			
HCM 2000 Control Delay	16.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	80.6	Sum of lost time (s)	13.4
Intersection Capacity Utilization	35.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



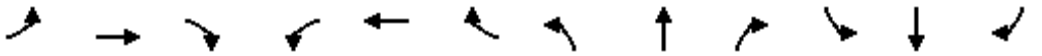
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	390	600	370	570	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.0		
Lane Util. Factor	1.00	0.95	0.95	1.00		
Frt	1.00	1.00	1.00	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	1770	3539	3539	1583		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	1770	3539	3539	1583		
Peak-hour factor, PHF	0.84	0.84	0.79	0.79	0.92	0.92
Adj. Flow (vph)	464	714	468	722	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	464	714	468	722	0	0
Turn Type	Prot	NA	NA	Free		
Protected Phases	2 3	Free	4			
Permitted Phases				Free		
Actuated Green, G (s)	36.0	80.6	35.8	80.6		
Effective Green, g (s)	36.0	80.6	35.8	80.6		
Actuated g/C Ratio	0.45	1.00	0.44	1.00		
Clearance Time (s)			4.6			
Vehicle Extension (s)			4.1			
Lane Grp Cap (vph)	790	3539	1571	1583		
v/s Ratio Prot	c0.26	0.20	0.13			
v/s Ratio Perm				c0.46		
v/c Ratio	0.59	0.20	0.30	0.46		
Uniform Delay, d1	16.7	0.0	14.3	0.0		
Progression Factor	1.00	1.00	0.71	1.00		
Incremental Delay, d2	0.7	0.1	0.1	0.8		
Delay (s)	17.5	0.1	10.3	0.8		
Level of Service	B	A	B	A		
Approach Delay (s)		7.0	4.5		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	5.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	80.6	Sum of lost time (s)	13.4
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



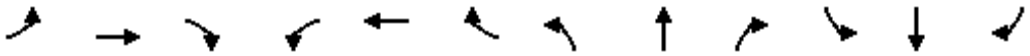
Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (vph)	0	350	410	940	600	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6	
Lane Util. Factor		0.95	0.91	0.91	0.97	
Frt		1.00	0.92	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3539	3119	1441	3433	
Flt Permitted		1.00	1.00	1.00	0.95	
Satd. Flow (perm)		3539	3119	1441	3433	
Peak-hour factor, PHF	0.83	0.83	0.78	0.78	0.86	0.86
Adj. Flow (vph)	0	422	526	1205	698	0
RTOR Reduction (vph)	0	0	183	0	0	0
Lane Group Flow (vph)	0	422	946	602	698	0
Turn Type		NA	NA	Free	Prot	
Protected Phases		4	4		2 3	
Permitted Phases				Free		
Actuated Green, G (s)		35.8	35.8	80.6	36.0	
Effective Green, g (s)		35.8	35.8	80.6	36.0	
Actuated g/C Ratio		0.44	0.44	1.00	0.45	
Clearance Time (s)		4.6	4.6			
Vehicle Extension (s)		4.1	4.1			
Lane Grp Cap (vph)		1571	1385	1441	1533	
v/s Ratio Prot		0.12	c0.30		0.20	
v/s Ratio Perm				c0.42		
v/c Ratio		0.27	0.68	0.42	0.46	
Uniform Delay, d1		14.1	17.9	0.0	15.5	
Progression Factor		1.27	1.00	1.00	1.00	
Incremental Delay, d2		0.1	1.6	0.9	0.1	
Delay (s)		18.0	19.4	0.9	15.6	
Level of Service		B	B	A	B	
Approach Delay (s)		18.0	13.0		15.6	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	80.6	Sum of lost time (s)	13.4
Intersection Capacity Utilization	46.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



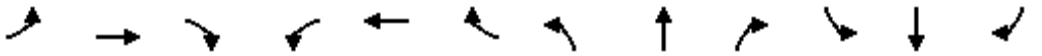
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	130	620	110	180	710	100	420	300	30	240	470	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9	4.9	4.0	4.9	4.9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3474		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3474		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.92	0.92	0.85	0.85	0.85	0.69	0.69	0.69
Adj. Flow (vph)	140	667	118	196	772	109	494	353	35	348	681	261
RTOR Reduction (vph)	0	0	61	0	8	0	0	0	25	0	0	127
Lane Group Flow (vph)	140	667	57	196	873	0	494	353	10	348	681	134
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8						6			2
Actuated Green, G (s)	8.9	31.4	31.4	10.7	33.2		18.9	31.9	31.9	15.3	28.3	28.3
Effective Green, g (s)	8.9	31.4	31.4	10.7	33.2		18.9	31.9	31.9	15.3	28.3	28.3
Actuated g/C Ratio	0.08	0.29	0.29	0.10	0.31		0.18	0.30	0.30	0.14	0.26	0.26
Clearance Time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9	4.9	4.0	4.9	4.9
Vehicle Extension (s)	2.0	5.0	5.0	2.0	5.2		2.0	5.0	5.0	2.0	5.2	5.2
Lane Grp Cap (vph)	285	1037	464	342	1076		605	1054	471	490	935	418
v/s Ratio Prot	0.04	0.19		c0.06	c0.25		c0.14	c0.10		0.10	c0.19	
v/s Ratio Perm			0.04						0.01			0.08
v/c Ratio	0.49	0.64	0.12	0.57	0.81		0.82	0.33	0.02	0.71	0.73	0.32
Uniform Delay, d1	46.9	33.0	27.8	46.0	34.1		42.4	29.3	26.6	43.8	35.9	31.7
Progression Factor	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	0.5	1.9	0.3	1.4	5.4		7.9	0.4	0.0	4.0	3.6	1.0
Delay (s)	47.4	34.9	28.0	47.5	39.5		50.4	29.7	26.6	47.8	39.5	32.7
Level of Service	D	C	C	D	D		D	C	C	D	D	C
Approach Delay (s)		35.9			40.9			41.2			40.4	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	39.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	107.1	Sum of lost time (s)	17.8
Intersection Capacity Utilization	67.6%	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	0	0	40	0	260	0	350	70	110	150	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.2		4.2	4.2	4.0	4.2	
Lane Util. Factor					1.00	1.00		1.00	1.00	1.00	1.00	
Frt					1.00	0.85		1.00	0.85	1.00	1.00	
Flt Protected					0.95	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)					1770	1583		1863	1583	1770	1863	
Flt Permitted					0.95	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)					1770	1583		1863	1583	1770	1863	
Peak-hour factor, PHF	0.85	0.85	0.85	0.59	0.85	0.59	0.85	0.80	0.80	0.80	0.80	0.85
Adj. Flow (vph)	0	0	0	68	0	441	0	438	88	138	188	0
RTOR Reduction (vph)	0	0	0	0	0	352	0	0	37	0	0	0
Lane Group Flow (vph)	0	0	0	0	68	89	0	438	51	138	188	0
Turn Type				Perm	NA	custom		NA	Perm	Prot	NA	
Protected Phases					8			6		5	2	
Permitted Phases				8		4	6		6			
Actuated Green, G (s)					10.4	10.2		19.7	19.7	8.1	31.8	
Effective Green, g (s)					10.4	10.2		19.7	19.7	8.1	31.8	
Actuated g/C Ratio					0.21	0.20		0.39	0.39	0.16	0.63	
Clearance Time (s)					4.0	4.2		4.2	4.2	4.0	4.2	
Vehicle Extension (s)					3.0	2.0		4.8	4.8	3.0	4.8	
Lane Grp Cap (vph)					365	320		728	618	284	1175	
v/s Ratio Prot								c0.24		c0.08	0.10	
v/s Ratio Perm					0.04	c0.06			0.03			
v/c Ratio					0.19	0.28		0.60	0.08	0.49	0.16	
Uniform Delay, d1					16.5	17.0		12.2	9.7	19.3	3.8	
Progression Factor					1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2					0.2	0.2		2.0	0.1	1.3	0.1	
Delay (s)					16.8	17.2		14.2	9.8	20.6	3.9	
Level of Service					B	B		B	A	C	A	
Approach Delay (s)		0.0			17.1			13.5			11.0	
Approach LOS		A			B			B			B	

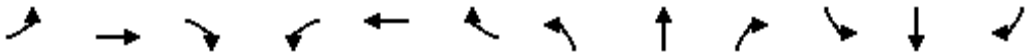
Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	50.4	Sum of lost time (s)	12.4
Intersection Capacity Utilization	41.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	60	60	10	70	70	120	460	60	10	250	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Util. Factor	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	0.93		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1723		1770	1723		1770	1831		1770	1863	1583
Flt Permitted	0.62	1.00		0.65	1.00		0.51	1.00		0.28	1.00	1.00
Satd. Flow (perm)	1150	1723		1217	1723		953	1831		518	1863	1583
Peak-hour factor, PHF	0.73	0.73	0.73	0.69	0.69	0.69	0.89	0.89	0.89	0.77	0.77	0.77
Adj. Flow (vph)	41	82	82	14	101	101	135	517	67	13	325	26
RTOR Reduction (vph)	0	51	0	0	60	0	0	8	0	0	0	14
Lane Group Flow (vph)	41	113	0	14	142	0	135	576	0	13	325	12
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	22.8	22.8		22.8	22.8		28.8	28.8		28.8	28.8	28.8
Effective Green, g (s)	22.8	22.8		22.8	22.8		28.8	28.8		28.8	28.8	28.8
Actuated g/C Ratio	0.38	0.38		0.38	0.38		0.48	0.48		0.48	0.48	0.48
Clearance Time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Grp Cap (vph)	437	654		462	654		457	878		248	894	759
v/s Ratio Prot		0.07			c0.08			c0.31			0.17	
v/s Ratio Perm	0.04			0.01			0.14			0.03		0.01
v/c Ratio	0.09	0.17		0.03	0.22		0.30	0.66		0.05	0.36	0.02
Uniform Delay, d1	12.0	12.3		11.7	12.6		9.5	11.8		8.3	9.8	8.2
Progression Factor	0.45	0.19		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.4	0.6		0.1	0.8		1.6	3.8		0.4	1.1	0.0
Delay (s)	5.8	2.9		11.8	13.3		11.1	15.7		8.7	11.0	8.2
Level of Service	A	A		B	B		B	B		A	B	A
Approach Delay (s)		3.4			13.2			14.8			10.7	
Approach LOS		A			B			B			B	

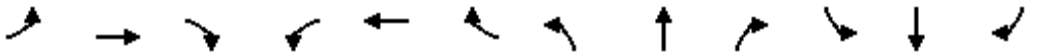
Intersection Summary			
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	750	20	60	780	100	10	30	60	70	50	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8		4.8	4.8		4.8	4.8	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.98		1.00	0.90		1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	3584		1805	3398		1687	1693		1805	1682	
Flt Permitted	0.16	1.00		0.19	1.00		0.64	1.00		0.67	1.00	
Satd. Flow (perm)	299	3584		353	3398		1132	1693		1274	1682	
Peak-hour factor, PHF	0.70	0.70	0.70	0.75	0.75	0.75	0.67	0.67	0.67	0.74	0.74	0.74
Adj. Flow (vph)	171	1071	29	80	1040	133	15	45	90	95	68	122
RTOR Reduction (vph)	0	3	0	0	16	0	0	48	0	0	52	0
Lane Group Flow (vph)	171	1097	0	80	1157	0	15	87	0	95	138	0
Heavy Vehicles (%)	3%	0%	12%	0%	5%	0%	7%	3%	0%	0%	4%	1%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	31.2	31.2		31.2	31.2		19.2	19.2		19.2	19.2	
Effective Green, g (s)	31.2	31.2		31.2	31.2		19.2	19.2		19.2	19.2	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.32	0.32		0.32	0.32	
Clearance Time (s)	4.8	4.8		4.8	4.8		4.8	4.8		4.8	4.8	
Lane Grp Cap (vph)	155	1863		183	1766		362	541		407	538	
v/s Ratio Prot		0.31			0.34			0.05			c0.08	
v/s Ratio Perm	c0.57			0.23			0.01			0.07		
v/c Ratio	1.10	0.59		0.44	0.65		0.04	0.16		0.23	0.26	
Uniform Delay, d1	14.4	10.0		8.9	10.5		14.1	14.6		15.0	15.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	102.6	1.4		7.4	1.9		0.2	0.6		1.3	1.2	
Delay (s)	117.0	11.3		16.4	12.4		14.3	15.3		16.3	16.3	
Level of Service	F	B		B	B		B	B		B	B	
Approach Delay (s)		25.6			12.6			15.2			16.3	
Approach LOS		C			B			B			B	

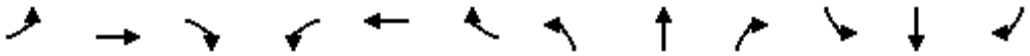
Intersection Summary			
HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	800	80	90	400	0	0	0	0	550	0	540
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		5.2	5.2					4.2	4.2	4.2
Lane Util. Factor		0.95		1.00	0.95					0.95	0.91	0.95
Frt		0.99		1.00	1.00					1.00	0.92	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.98	1.00
Satd. Flow (prot)		3491		1770	3438					1681	1524	1504
Flt Permitted		1.00		0.18	1.00					0.95	0.98	1.00
Satd. Flow (perm)		3491		336	3438					1681	1524	1504
Peak-hour factor, PHF	0.72	0.72	0.72	0.78	0.78	0.78	0.92	0.92	0.92	0.83	0.83	0.83
Adj. Flow (vph)	0	1111	111	115	513	0	0	0	0	663	0	651
RTOR Reduction (vph)	0	10	0	0	0	0	0	0	0	0	64	64
Lane Group Flow (vph)	0	1212	0	115	513	0	0	0	0	457	376	353
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Perm	NA					Split	NA	Perm
Protected Phases		2			2					4	4	
Permitted Phases				2								4
Actuated Green, G (s)		22.2		22.2	22.2					25.7	25.7	25.7
Effective Green, g (s)		22.2		22.2	22.2					25.7	25.7	25.7
Actuated g/C Ratio		0.39		0.39	0.39					0.45	0.45	0.45
Clearance Time (s)		5.2		5.2	5.2					4.2	4.2	4.2
Vehicle Extension (s)		0.2		0.2	0.2					5.2	5.2	5.2
Lane Grp Cap (vph)		1352		130	1332					753	683	674
v/s Ratio Prot		c0.35			0.15					c0.27	0.25	
v/s Ratio Perm				0.34								0.23
v/c Ratio		0.90		0.88	0.39					0.61	0.55	0.52
Uniform Delay, d1		16.5		16.4	12.6					12.0	11.6	11.4
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		7.9		44.7	0.1					2.1	1.7	1.5
Delay (s)		24.4		61.1	12.7					14.1	13.3	12.9
Level of Service		C		E	B					B	B	B
Approach Delay (s)		24.4			21.6			0.0			13.4	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	57.3	Sum of lost time (s)	9.4
Intersection Capacity Utilization	87.5%	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)	580	770	0	0	400	110	90	10	330	0	0	0
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			
Lane Util. Factor	1.00	0.95			0.95			1.00	1.00			
Frt	1.00	1.00			0.97			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.96	1.00			
Satd. Flow (prot)	1770	3539			3347			1782	1583			
Flt Permitted	0.95	1.00			1.00			0.96	1.00			
Satd. Flow (perm)	1770	3539			3347			1782	1583			
Peak-hour factor, PHF	0.76	0.76	0.76	0.86	0.86	0.86	0.70	0.70	0.70	0.92	0.92	0.92
Adj. Flow (vph)	763	1013	0	0	465	128	129	14	471	0	0	0
RTOR Reduction (vph)	0	0	0	0	31	0	0	0	123	0	0	0
Lane Group Flow (vph)	763	1013	0	0	562	0	0	143	348	0	0	0
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA			NA		Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	35.0	54.6			15.6			17.0	17.0			
Effective Green, g (s)	35.0	54.6			15.6			17.0	17.0			
Actuated g/C Ratio	0.44	0.69			0.20			0.21	0.21			
Clearance Time (s)	4.0	4.0			4.0			4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			
Lane Grp Cap (vph)	778	2427			655			380	338			
v/s Ratio Prot	c0.43	0.29			c0.17							
v/s Ratio Perm								0.08	c0.22			
v/c Ratio	0.98	0.42			0.86			0.38	1.03			
Uniform Delay, d1	22.0	5.5			30.9			26.8	31.3			
Progression Factor	1.00	1.00			1.00			1.00	1.00			
Incremental Delay, d2	27.4	0.1			10.8			0.6	56.4			
Delay (s)	49.4	5.6			41.7			27.4	87.7			
Level of Service	D	A			D			C	F			
Approach Delay (s)		24.4			41.7			73.6			0.0	
Approach LOS		C			D			E			A	

Intersection Summary			
HCM 2000 Control Delay	38.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	79.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

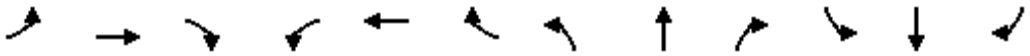
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	1010	10	10	460	30	20	20	20	30	10	30
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.71	0.71	0.71	0.84	0.84	0.84	0.93	0.93	0.93	0.81	0.81	0.81
Hourly flow rate (vph)	113	1423	14	12	548	36	22	22	22	37	12	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		270			797							
pX, platoon unblocked				0.87			0.87	0.87	0.87	0.87	0.87	
vC, conflicting volume	583			1437			1996	2262	718	1558	2251	292
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	583			1207			1848	2153	383	1346	2141	292
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	89			98			15	40	96	15	66	95
cM capacity (veh/h)	987			500			25	36	537	43	36	705

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	824	725	286	310	65	86
Volume Left	113	0	12	0	22	37
Volume Right	0	14	0	36	22	37
cSH	987	1700	500	1700	43	69
Volume to Capacity	0.11	0.43	0.02	0.18	1.49	1.25
Queue Length 95th (ft)	10	0	2	0	161	171
Control Delay (s)	2.8	0.0	0.9	0.0	460.4	291.8
Lane LOS	A		A		F	F
Approach Delay (s)	1.5		0.4		460.4	291.8
Approach LOS					F	F

Intersection Summary			
Average Delay	25.0		
Intersection Capacity Utilization	60.4%	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)	160	770	40	40	430	270	40	200	120	150	150	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.94		1.00	0.94		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3513		1770	3275		1770	1758		1770	1783	
Flt Permitted	0.32	1.00		0.22	1.00		0.49	1.00		0.37	1.00	
Satd. Flow (perm)	592	3513		416	3275		915	1758		696	1783	
Peak-hour factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91	0.88	0.88	0.88	0.75	0.75	0.75
Adj. Flow (vph)	198	951	49	44	473	297	45	227	136	200	200	80
RTOR Reduction (vph)	0	6	0	0	136	0	0	36	0	0	24	0
Lane Group Flow (vph)	198	994	0	44	634	0	45	327	0	200	256	0
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			4	
Permitted Phases	6			2			4			4		
Actuated Green, G (s)	32.5	32.5		32.5	32.5		18.8	18.8		18.8	18.8	
Effective Green, g (s)	32.5	32.5		32.5	32.5		18.8	18.8		18.8	18.8	
Actuated g/C Ratio	0.54	0.54		0.54	0.54		0.31	0.31		0.31	0.31	
Clearance Time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	
Lane Grp Cap (vph)	320	1902		225	1773		286	550		218	558	
v/s Ratio Prot		0.28			0.19			0.19			0.14	
v/s Ratio Perm	c0.33			0.11			0.05			c0.29		
v/c Ratio	0.62	0.52		0.20	0.36		0.16	0.60		0.92	0.46	
Uniform Delay, d1	9.5	8.8		7.0	7.8		14.9	17.4		19.9	16.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	8.7	1.0		1.9	0.6		1.2	4.7		42.7	2.7	
Delay (s)	18.2	9.8		9.0	8.4		16.1	22.1		62.5	19.2	
Level of Service	B	A		A	A		B	C		E	B	
Approach Delay (s)		11.2			8.4			21.4			37.3	
Approach LOS		B			A			C			D	

Intersection Summary			
HCM 2000 Control Delay	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.7
Intersection Capacity Utilization	90.7%	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 (veh/h)	250	760	30	10	660	170	30	10	10	90	20	50
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.83	0.83	0.83	0.92	0.92	0.92	0.78	0.78	0.78	0.89	0.89	0.89
Hourly flow rate (vph)	301	916	36	11	717	185	38	13	13	101	22	56
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			None							
Median storage veh)		2										
Upstream signal (ft)		681			400							
pX, platoon unblocked	0.86			0.93			0.89	0.89	0.93	0.89	0.89	0.86
vC, conflicting volume	902			952			1984	2460	476	1911	2386	451
vC1, stage 1 conf vol							1536	1536		832	832	
vC2, stage 2 conf vol							448	924		1079	1554	
vCu, unblocked vol	556			794			1504	2036	281	1422	1953	30
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	65			99			54	86	98	25	78	94
cM capacity (veh/h)	868			764			84	89	664	135	104	890

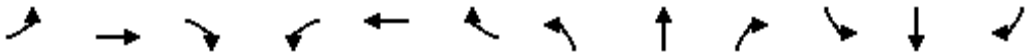
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	301	610	341	11	478	424	64	180
Volume Left	301	0	0	11	0	0	38	101
Volume Right	0	0	36	0	0	185	13	56
cSH	868	1700	1700	764	1700	1700	103	175
Volume to Capacity	0.35	0.36	0.20	0.01	0.28	0.25	0.62	1.03
Queue Length 95th (ft)	39	0	0	1	0	0	76	213
Control Delay (s)	11.3	0.0	0.0	9.8	0.0	0.0	85.1	129.8
Lane LOS	B			A			F	F
Approach Delay (s)	2.7			0.1			85.1	129.8
Approach LOS							F	F

Intersection Summary				
Average Delay	13.4			
Intersection Capacity Utilization	58.2%	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)	20	820	70	40	640	90	160	60	10	20	20	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		5.6	5.6		5.6	5.6	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3497		1770	3474		1770	1823		1770	1767	
Flt Permitted	0.95	1.00		0.95	1.00		0.73	1.00		0.70	1.00	
Satd. Flow (perm)	1770	3497		1770	3474		1364	1823		1299	1767	
Peak-hour factor, PHF	0.79	0.79	0.79	0.95	0.95	0.95	0.76	0.76	0.76	0.79	0.79	0.79
Adj. Flow (vph)	25	1038	89	42	674	95	211	79	13	25	25	13
RTOR Reduction (vph)	0	7	0	0	12	0	0	6	0	0	9	0
Lane Group Flow (vph)	25	1120	0	42	757	0	211	86	0	25	29	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	10.0	36.8		13.0	39.8		26.4	26.4		26.4	26.4	
Effective Green, g (s)	10.0	36.8		13.0	39.8		26.4	26.4		26.4	26.4	
Actuated g/C Ratio	0.11	0.41		0.14	0.44		0.29	0.29		0.29	0.29	
Clearance Time (s)	4.0	4.2		4.0	4.2		5.6	5.6		5.6	5.6	
Lane Grp Cap (vph)	196	1429		255	1536		400	534		381	518	
v/s Ratio Prot	0.01	c0.32		c0.02	c0.22			0.05			0.02	
v/s Ratio Perm							c0.15			0.02		
v/c Ratio	0.13	0.78		0.16	0.49		0.53	0.16		0.07	0.06	
Uniform Delay, d1	36.1	23.1		33.7	17.9		26.6	23.6		22.9	22.8	
Progression Factor	1.00	1.00		0.69	1.18		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	4.4		1.0	0.8		4.9	0.6		0.3	0.2	
Delay (s)	37.4	27.5		24.3	21.9		31.5	24.2		23.2	23.0	
Level of Service	D	C		C	C		C	C		C	C	
Approach Delay (s)		27.7			22.1			29.3			23.1	
Approach LOS		C			C			C			C	

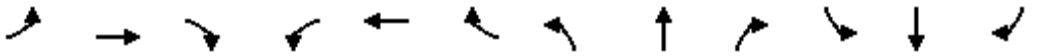
Intersection Summary			
HCM 2000 Control Delay	25.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.8
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



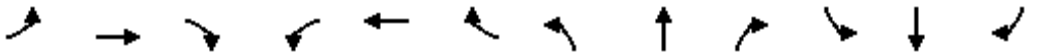
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	600	90	50	420	210	320	470	140	180	140	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.2	4.2	4.2	4.2	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	0.95		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3470		1770	3362		1770	1863	1583	1770	1801	
Flt Permitted	0.95	1.00		0.95	1.00		0.56	1.00	1.00	0.24	1.00	
Satd. Flow (perm)	1770	3470		1770	3362		1041	1863	1583	448	1801	
Peak-hour factor, PHF	0.80	0.80	0.80	0.83	0.83	0.83	0.87	0.87	0.87	0.78	0.78	0.78
Adj. Flow (vph)	88	750	112	60	506	253	368	540	161	231	179	51
RTOR Reduction (vph)	0	13	0	0	67	0	0	0	66	0	12	0
Lane Group Flow (vph)	88	849	0	60	692	0	368	540	95	231	218	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	8.0	33.4		6.4	31.8		37.8	37.8	37.8	37.8	37.8	
Effective Green, g (s)	8.0	33.4		6.4	31.8		37.8	37.8	37.8	37.8	37.8	
Actuated g/C Ratio	0.09	0.37		0.07	0.35		0.42	0.42	0.42	0.42	0.42	
Clearance Time (s)	4.0	4.2		4.0	4.2		4.2	4.2	4.2	4.2	4.2	
Vehicle Extension (s)	2.0	4.8		2.0	4.8		4.8	4.8	4.8	4.8	4.8	
Lane Grp Cap (vph)	157	1287		125	1187		437	782	664	188	756	
v/s Ratio Prot	0.05	c0.24		0.03	c0.21			0.29			0.12	
v/s Ratio Perm							0.35		0.06	c0.52		
v/c Ratio	0.56	0.66		0.48	0.58		0.84	0.69	0.14	1.23	0.29	
Uniform Delay, d1	39.3	23.6		40.2	23.7		23.4	21.3	16.1	26.1	17.2	
Progression Factor	1.16	1.23		0.74	1.09		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.7	1.7		1.0	1.9		14.9	3.2	0.2	140.6	0.4	
Delay (s)	47.1	30.7		30.6	27.6		38.3	24.6	16.3	166.7	17.6	
Level of Service	D	C		C	C		D	C	B	F	B	
Approach Delay (s)		32.2			27.8			28.0			92.3	
Approach LOS		C			C			C			F	

Intersection Summary			
HCM 2000 Control Delay	38.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



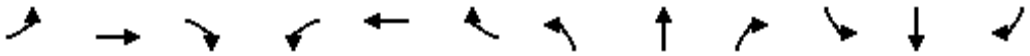
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	600	130	20	690	110	100	350	70	50	210	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2		4.0	4.0			5.2	5.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frt	1.00	0.97		1.00	0.98		1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)	1770	3441		1770	3466		1770	1816			1845	1583
Flt Permitted	0.24	1.00		0.28	1.00		0.43	1.00			0.50	1.00
Satd. Flow (perm)	442	3441		527	3466		798	1816			931	1583
Peak-hour factor, PHF	0.83	0.87	0.83	0.83	0.83	0.83	0.92	0.92	0.92	0.84	0.84	0.84
Adj. Flow (vph)	12	690	157	24	831	133	109	380	76	60	250	24
RTOR Reduction (vph)	0	22	0	0	14	0	0	8	0	0	0	16
Lane Group Flow (vph)	12	825	0	24	950	0	109	448	0	0	310	8
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	50.8	50.8		50.8	50.8		30.0	30.0			28.8	28.8
Effective Green, g (s)	50.8	50.8		50.8	50.8		30.0	30.0			28.8	28.8
Actuated g/C Ratio	0.56	0.56		0.56	0.56		0.33	0.33			0.32	0.32
Clearance Time (s)	5.2	5.2		5.2	5.2		4.0	4.0			5.2	5.2
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0			2.0	2.0
Lane Grp Cap (vph)	249	1942		297	1956		266	605			297	506
v/s Ratio Prot		0.24			c0.27			0.25				
v/s Ratio Perm	0.03			0.05			0.14				c0.33	0.00
v/c Ratio	0.05	0.42		0.08	0.49		0.41	0.74			1.04	0.02
Uniform Delay, d1	8.8	11.2		8.9	11.8		23.2	26.6			30.6	20.9
Progression Factor	0.53	0.89		1.12	1.14		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.3	0.5		0.4	0.6		1.0	4.9			64.1	0.0
Delay (s)	4.9	10.5		10.4	14.0		24.2	31.4			94.7	20.9
Level of Service	A	B		B	B		C	C			F	C
Approach Delay (s)		10.4			13.9			30.0			89.4	
Approach LOS		B			B			C			F	

Intersection Summary			
HCM 2000 Control Delay	25.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



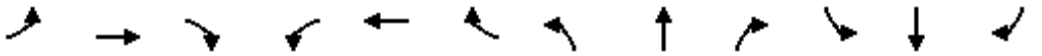
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	130	590	10	10	490	80	360	360	10	30	20	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2	4.2	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	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	3539	1583	1770	3539	1583	1681	1762	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.74	0.97	1.00	0.18	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1304	1719	1583	342	1863	1583
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.86	0.86	0.86	0.65	0.65	0.65
Adj. Flow (vph)	159	720	12	12	598	98	419	419	12	46	31	31
RTOR Reduction (vph)	0	0	5	0	0	48	0	0	9	0	0	23
Lane Group Flow (vph)	159	720	7	12	598	50	377	461	3	46	31	8
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	3	8		7	4			6			2	
Permitted Phases			8			4	6		6	2		2
Actuated Green, G (s)	9.7	54.5	54.5	1.3	46.1	46.1	21.8	21.8	21.8	21.8	21.8	21.8
Effective Green, g (s)	9.7	54.5	54.5	1.3	46.1	46.1	21.8	21.8	21.8	21.8	21.8	21.8
Actuated g/C Ratio	0.11	0.61	0.61	0.01	0.51	0.51	0.24	0.24	0.24	0.24	0.24	0.24
Clearance Time (s)	4.0	4.2	4.2	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Vehicle Extension (s)	2.0	4.9	4.9	2.0	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Lane Grp Cap (vph)	190	2143	958	25	1812	810	315	416	383	82	451	383
v/s Ratio Prot	c0.09	c0.20		0.01	0.17						0.02	
v/s Ratio Perm			0.00			0.03	c0.29	0.27	0.00	0.13		0.00
v/c Ratio	0.84	0.34	0.01	0.48	0.33	0.06	1.20	1.11	0.01	0.56	0.07	0.02
Uniform Delay, d1	39.4	8.8	7.0	44.0	12.9	11.1	34.1	34.1	25.9	29.9	26.3	26.0
Progression Factor	1.07	0.65	1.00	1.22	0.83	0.52	1.03	1.03	1.00	1.00	1.00	1.00
Incremental Delay, d2	23.1	0.4	0.0	5.1	0.5	0.1	112.5	74.1	0.0	13.3	0.1	0.0
Delay (s)	65.0	6.1	7.0	58.9	11.2	5.9	147.6	109.3	25.9	43.2	26.4	26.0
Level of Service	E	A	A	E	B	A	F	F	C	D	C	C
Approach Delay (s)		16.7			11.2			125.1			33.4	
Approach LOS		B			B			F			C	

Intersection Summary			
HCM 2000 Control Delay	51.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



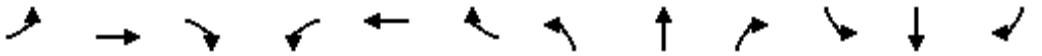
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	570	0	0	550	120	40	120	130	20	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2			4.2		3.2	3.2	3.2		4.0	
Lane Util. Factor	1.00	0.95			0.95		1.00	1.00	1.00		1.00	
Frt	1.00	1.00			0.97		1.00	1.00	0.85		0.95	
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1770	3539			3444		1770	1863	1583		1722	
Flt Permitted	0.35	1.00			1.00		0.74	1.00	1.00		0.68	
Satd. Flow (perm)	651	3539			3444		1370	1863	1583		1214	
Peak-hour factor, PHF	0.81	0.81	0.81	0.87	0.87	0.87	0.69	0.69	0.69	0.92	0.92	0.92
Adj. Flow (vph)	62	704	0	0	632	138	58	174	188	22	0	11
RTOR Reduction (vph)	0	0	0	0	13	0	0	0	159	0	23	0
Lane Group Flow (vph)	62	704	0	0	757	0	58	174	29	0	10	0
Turn Type	Perm	NA			NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8		8	4		
Actuated Green, G (s)	67.7	67.7			68.7		13.9	13.9	13.9		13.1	
Effective Green, g (s)	67.7	67.7			68.7		13.9	13.9	13.9		13.1	
Actuated g/C Ratio	0.75	0.75			0.76		0.15	0.15	0.15		0.15	
Clearance Time (s)	5.2	5.2			4.2		3.2	3.2	3.2		4.0	
Vehicle Extension (s)	2.0	2.0			2.0		2.0	2.0	2.0		3.0	
Lane Grp Cap (vph)	489	2662			2628		211	287	244		176	
v/s Ratio Prot		0.20			c0.22			c0.09				
v/s Ratio Perm	0.10						0.04		0.02		0.01	
v/c Ratio	0.13	0.26			0.29		0.27	0.61	0.12		0.06	
Uniform Delay, d1	3.1	3.4			3.2		33.6	35.5	32.8		33.1	
Progression Factor	0.33	0.30			1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.5	0.2			0.3		0.3	2.5	0.1		0.1	
Delay (s)	1.5	1.3			3.5		33.9	38.0	32.9		33.3	
Level of Service	A	A			A		C	D	C		C	
Approach Delay (s)		1.3			3.5			35.1			33.3	
Approach LOS		A			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



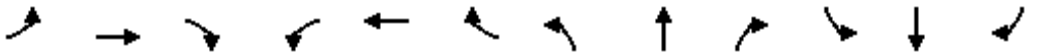
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	440	10	20	560	190	10	150	10	170	160	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6	4.6	4.6	4.6		4.6	4.6	4.6
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3527		1770	3539	1583	1770	3507		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.51	1.00		0.62	1.00	1.00
Satd. Flow (perm)	1770	3527		1770	3539	1583	945	3507		1152	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.81	0.81	0.81	0.75	0.75	0.75	0.79	0.79	0.79
Adj. Flow (vph)	98	478	11	25	691	235	13	200	13	215	203	203
RTOR Reduction (vph)	0	1	0	0	0	117	0	6	0	0	0	155
Lane Group Flow (vph)	98	488	0	25	691	118	13	207	0	215	203	48
Turn Type	Prot	NA		Prot	NA	custom	Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases						8	8			4		4
Actuated Green, G (s)	11.2	52.8		2.8	44.4	21.2	21.2	21.2		21.2	21.2	21.2
Effective Green, g (s)	11.2	52.8		2.8	44.4	21.2	21.2	21.2		21.2	21.2	21.2
Actuated g/C Ratio	0.12	0.59		0.03	0.49	0.24	0.24	0.24		0.24	0.24	0.24
Clearance Time (s)	4.0	4.6		4.0	4.6	4.6	4.6	4.6		4.6	4.6	4.6
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	220	2069		55	1745	372	222	826		271	438	372
v/s Ratio Prot	c0.06	0.14		0.01	c0.20			0.06			0.11	
v/s Ratio Perm						0.07	0.01			c0.19		0.03
v/c Ratio	0.45	0.24		0.45	0.40	0.32	0.06	0.25		0.79	0.46	0.13
Uniform Delay, d1	36.5	8.9		42.8	14.4	28.4	26.7	27.9		32.3	29.5	27.1
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	0.5	0.3		2.2	0.7	0.2	0.0	0.1		13.8	0.3	0.1
Delay (s)	37.0	9.2		45.0	15.0	28.6	26.7	28.0		46.1	29.8	27.2
Level of Service	D	A		D	B	C	C	C		D	C	C
Approach Delay (s)		13.8			19.2			27.9			34.6	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	22.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



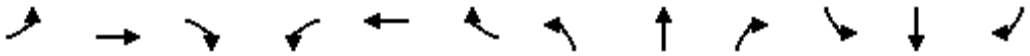
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	10	260	110	900	10	110	0	0	30	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.2	4.6	4.6	4.6	4.2	4.6			4.6	4.6
Lane Util. Factor			1.00	1.00	1.00	0.88	1.00	1.00			1.00	1.00
Frt			0.86	1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00	0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1611	1770	1863	2787	1770	1863			1863	1583
Flt Permitted			1.00	0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1611	1770	1863	2787	1770	1863			1863	1583
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.89	0.89	0.89	0.92	0.92	0.92
Adj. Flow (vph)	0	0	12	306	129	1059	11	124	0	0	33	22
RTOR Reduction (vph)	0	0	7	0	0	612	0	0	0	0	0	13
Lane Group Flow (vph)	0	0	5	306	129	447	11	124	0	0	33	9
Turn Type			pm+ov	Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1		4		1	6			2	
Permitted Phases			8	4		4						2
Actuated Green, G (s)			40.5	38.0	38.0	38.0	2.5	42.8			36.1	36.1
Effective Green, g (s)			40.5	38.0	38.0	38.0	2.5	42.8			36.1	36.1
Actuated g/C Ratio			0.45	0.42	0.42	0.42	0.03	0.48			0.40	0.40
Clearance Time (s)			4.2	4.6	4.6	4.6	4.2	4.6			4.6	4.6
Vehicle Extension (s)			2.0	5.3	5.3	5.3	2.0	5.1			5.2	5.2
Lane Grp Cap (vph)			724	747	786	1176	49	885			747	634
v/s Ratio Prot			0.00		0.07		0.01	c0.07			0.02	
v/s Ratio Perm			0.00	c0.17		0.16						0.01
v/c Ratio			0.01	0.41	0.16	0.38	0.22	0.14			0.04	0.01
Uniform Delay, d1			13.7	18.2	16.1	17.9	42.8	13.3			16.4	16.2
Progression Factor			1.00	1.00	1.00	1.00	1.00	1.00			1.16	1.00
Incremental Delay, d2			0.0	0.8	0.2	0.5	0.8	0.3			0.1	0.0
Delay (s)			13.7	19.0	16.4	18.4	43.7	13.6			19.2	16.3
Level of Service			B	B	B	B	D	B			B	B
Approach Delay (s)		13.7			18.3			16.0			18.0	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



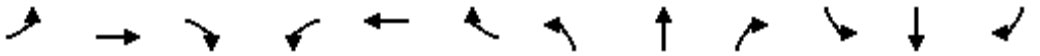
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	370	140	10	0	0	0	0	170	180	190	120	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		1.00						0.93		1.00	1.00	
Flt Protected		0.97						1.00		0.95	1.00	
Satd. Flow (prot)		3408						1734		1770	1863	
Flt Permitted		0.97						1.00		0.45	1.00	
Satd. Flow (perm)		3408						1734		846	1863	
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.86	0.86	0.86	0.83	0.83	0.83
Adj. Flow (vph)	435	165	12	0	0	0	0	198	209	229	145	0
RTOR Reduction (vph)	0	3	0	0	0	0	0	92	0	0	0	0
Lane Group Flow (vph)	0	609	0	0	0	0	0	315	0	229	145	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		12.2						14.4		14.4	14.4	
Effective Green, g (s)		12.2						14.4		14.4	14.4	
Actuated g/C Ratio		0.35						0.42		0.42	0.42	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		1201						721		352	775	
v/s Ratio Prot								0.18			0.08	
v/s Ratio Perm		0.18								c0.27		
v/c Ratio		0.51						0.44		0.65	0.19	
Uniform Delay, d1		8.8						7.2		8.1	6.4	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.3						0.4		4.3	0.1	
Delay (s)		9.2						7.6		12.3	6.5	
Level of Service		A						A		B	A	
Approach Delay (s)		9.2			0.0			7.6			10.1	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	9.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	34.6	Sum of lost time (s)	8.0
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	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	180	0	790	40	230	0	0	250	120
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	
Lane Util. Factor					0.95	0.95	1.00	1.00			1.00	
Frt					0.90	0.85	1.00	1.00			0.96	
Flt Protected					0.98	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1572	1504	1770	1863			1781	
Flt Permitted					0.98	1.00	0.33	1.00			1.00	
Satd. Flow (perm)					1572	1504	615	1863			1781	
Peak-hour factor, PHF	0.92	0.92	0.92	0.71	0.71	0.71	0.86	0.86	0.86	0.83	0.83	0.83
Adj. Flow (vph)	0	0	0	254	0	1113	47	267	0	0	301	145
RTOR Reduction (vph)	0	0	0	0	142	224	0	0	0	0	40	0
Lane Group Flow (vph)	0	0	0	0	557	444	47	267	0	0	406	0
Turn Type				Perm	NA	Perm	Perm	NA			NA	
Protected Phases					6			8			8	
Permitted Phases				6		6	8					
Actuated Green, G (s)					18.2	18.2	13.4	13.4			13.4	
Effective Green, g (s)					18.2	18.2	13.4	13.4			13.4	
Actuated g/C Ratio					0.46	0.46	0.34	0.34			0.34	
Clearance Time (s)					4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)					3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)					722	691	208	630			602	
v/s Ratio Prot								0.14			c0.23	
v/s Ratio Perm					0.35	0.30	0.08					
v/c Ratio					0.77	0.64	0.23	0.42			0.67	
Uniform Delay, d1					9.0	8.2	9.4	10.1			11.2	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					5.1	2.1	0.6	0.5			3.0	
Delay (s)					14.1	10.3	9.9	10.6			14.2	
Level of Service					B	B	A	B			B	
Approach Delay (s)		0.0			12.2			10.5			14.2	
Approach LOS		A			B			B			B	

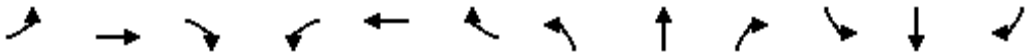
Intersection Summary			
HCM 2000 Control Delay	12.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	39.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	70	420	70	0	0	0	0	200	50	50	380	0
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.90	0.90	0.90	0.85	0.85	0.85
Hourly flow rate (vph)	82	494	82	0	0	0	0	222	56	59	447	0

Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2
Volume Total (vph)	329	329	278	59	447
Volume Left (vph)	82	0	0	59	0
Volume Right (vph)	0	82	56	0	0
Hadj (s)	0.16	-0.14	-0.09	0.53	0.03
Departure Headway (s)	7.1	6.8	7.2	7.6	7.0
Degree Utilization, x	0.65	0.62	0.55	0.12	0.87
Capacity (veh/h)	487	508	480	461	504
Control Delay (s)	21.3	19.3	18.6	10.4	40.3
Approach Delay (s)	20.3		18.6	36.9	
Approach LOS	C		C	E	

Intersection Summary				
Delay	25.8			
Level of Service	D			
Intersection Capacity Utilization	59.9%	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)	0	0	0	30	660	10	10	20	0	0	200	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.6		5.6	5.6			5.6	
Lane Util. Factor					0.95		1.00	1.00			1.00	
Frt					1.00		1.00	1.00			0.95	
Flt Protected					1.00		0.95	1.00			1.00	
Satd. Flow (prot)					3458		1805	1900			1761	
Flt Permitted					1.00		0.53	1.00			1.00	
Satd. Flow (perm)					3458		1008	1900			1761	
Peak-hour factor, PHF	0.85	0.85	0.85	1.00	1.00	1.00	0.64	0.64	0.64	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	30	660	10	16	31	0	0	235	118
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	19	0
Lane Group Flow (vph)	0	0	0	0	699	0	16	31	0	0	334	0
Heavy Vehicles (%)	2%	2%	2%	0%	4%	13%	0%	0%	0%	0%	3%	3%
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			2	
Permitted Phases				8			2					
Actuated Green, G (s)					16.4		32.4	32.4			32.4	
Effective Green, g (s)					16.4		32.4	32.4			32.4	
Actuated g/C Ratio					0.27		0.54	0.54			0.54	
Clearance Time (s)					5.6		5.6	5.6			5.6	
Lane Grp Cap (vph)					945		544	1026			950	
v/s Ratio Prot								0.02			c0.19	
v/s Ratio Perm					0.20		0.02					
v/c Ratio					0.74		0.03	0.03			0.35	
Uniform Delay, d1					19.9		6.5	6.5			7.8	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					5.2		0.1	0.1			1.0	
Delay (s)					25.0		6.6	6.5			8.9	
Level of Service					C		A	A			A	
Approach Delay (s)		0.0			25.0			6.5			8.9	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	67.0%	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)	20	530	10	0	0	0	0	30	30	180	40	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2						4.0		4.0	4.0	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		1.00						0.93		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		3494						1737		1719	1863	
Flt Permitted		1.00						1.00		0.71	1.00	
Satd. Flow (perm)		3494						1737		1287	1863	
Peak-hour factor, PHF	0.77	0.77	0.85	0.85	0.25	0.25	0.85	0.85	0.85	1.00	0.85	1.00
Adj. Flow (vph)	26	688	12	0	0	0	0	35	35	180	47	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	23	0	0	0	0
Lane Group Flow (vph)	0	725	0	0	0	0	0	47	0	180	47	0
Heavy Vehicles (%)	0%	3%	2%	2%	0%	0%	2%	2%	2%	5%	2%	0%
Turn Type	Perm	NA						NA		D.Pm	NA	
Protected Phases		8						2			6	
Permitted Phases	8									2		
Actuated Green, G (s)		30.0						19.0		19.0	19.0	
Effective Green, g (s)		30.0						19.0		19.0	19.0	
Actuated g/C Ratio		0.52						0.33		0.33	0.33	
Clearance Time (s)		4.2						4.0		4.0	4.0	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		1832						576		427	618	
v/s Ratio Prot								0.03			0.03	
v/s Ratio Perm		0.21								c0.14		
v/c Ratio		0.40						0.08		0.42	0.08	
Uniform Delay, d1		8.2						13.1		14.8	13.1	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.1						0.1		0.7	0.1	
Delay (s)		8.3						13.2		15.5	13.1	
Level of Service		A						B		B	B	
Approach Delay (s)		8.3			0.0			13.2			15.0	
Approach LOS		A			A			B			B	

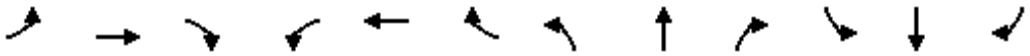
Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	57.2	Sum of lost time (s)	8.2
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	430	170	10	190	20	10	70	20	80	320	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	0.99		1.00	0.97		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1784		1770	1836		1770	1800		1770	1813	
Flt Permitted	0.61	1.00		0.13	1.00		0.22	1.00		0.69	1.00	
Satd. Flow (perm)	1145	1784		243	1836		401	1800		1281	1813	
Peak-hour factor, PHF	0.64	0.64	0.64	0.91	0.91	0.91	0.84	0.84	0.84	0.68	0.68	0.68
Adj. Flow (vph)	16	672	266	11	209	22	12	83	24	118	471	103
RTOR Reduction (vph)	0	24	0	0	6	0	0	17	0	0	13	0
Lane Group Flow (vph)	16	914	0	11	225	0	12	90	0	118	561	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	30.6	30.6		30.6	30.6		18.6	18.6		18.6	18.6	
Effective Green, g (s)	30.6	30.6		30.6	30.6		18.6	18.6		18.6	18.6	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.31	0.31		0.31	0.31	
Clearance Time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Lane Grp Cap (vph)	583	909		123	936		124	558		397	562	
v/s Ratio Prot		c0.51			0.12			0.05			c0.31	
v/s Ratio Perm	0.01			0.05			0.03			0.09		
v/c Ratio	0.03	1.01		0.09	0.24		0.10	0.16		0.30	1.00	
Uniform Delay, d1	7.3	14.7		7.5	8.2		14.7	15.0		15.7	20.7	
Progression Factor	0.93	1.30		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	20.2		1.4	0.6		1.5	0.6		1.9	37.5	
Delay (s)	6.8	39.3		9.0	8.8		16.3	15.7		17.6	58.2	
Level of Service	A	D		A	A		B	B		B	E	
Approach Delay (s)		38.8			8.8			15.7			51.3	
Approach LOS		D			A			B			D	

Intersection Summary			
HCM 2000 Control Delay	38.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	170	10	10	90	10	10	10	20	10	10	10
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		4.2	4.0			4.2	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.91			0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)	1770	1833		1805	1862		1583	1709			1750	
Flt Permitted	0.69	1.00		0.56	1.00		0.73	1.00			0.94	
Satd. Flow (perm)	1287	1833		1065	1862		1223	1709			1678	
Peak-hour factor, PHF	0.85	0.65	0.65	1.00	1.00	0.85	1.00	0.85	1.00	0.85	0.85	0.85
Adj. Flow (vph)	12	262	15	10	90	12	10	12	20	12	12	12
RTOR Reduction (vph)	0	4	0	0	6	0	0	13	0	0	8	0
Lane Group Flow (vph)	12	274	0	10	96	0	10	19	0	0	28	0
Heavy Vehicles (%)	2%	3%	0%	0%	0%	2%	14%	2%	0%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		D.Pm	NA		Perm	NA	
Protected Phases		8			4			2			6	
Permitted Phases	8			4			6			6		
Actuated Green, G (s)	30.0	30.0		30.0	30.0		21.8	22.0			21.8	
Effective Green, g (s)	30.0	30.0		30.0	30.0		21.8	22.0			21.8	
Actuated g/C Ratio	0.50	0.50		0.50	0.50		0.36	0.37			0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.2	4.0			4.2	
Lane Grp Cap (vph)	643	916		532	931		444	626			609	
v/s Ratio Prot		c0.15			0.05			0.01				
v/s Ratio Perm	0.01			0.01			0.01				c0.02	
v/c Ratio	0.02	0.30		0.02	0.10		0.02	0.03			0.05	
Uniform Delay, d1	7.6	8.8		7.6	7.9		12.3	12.2			12.4	
Progression Factor	1.00	1.00		0.77	0.79		1.00	1.00			1.00	
Incremental Delay, d2	0.1	0.8		0.1	0.2		0.1	0.1			0.1	
Delay (s)	7.6	9.7		5.9	6.5		12.4	12.3			12.5	
Level of Service	A	A		A	A		B	B			B	
Approach Delay (s)		9.6			6.4			12.3			12.5	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.19		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

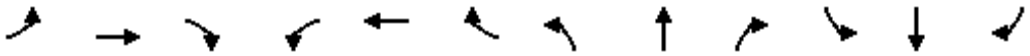
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	380	40	10	130	30	10	50	10	20	50	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.97			0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	1836		1770	1810			1813			1809	
Flt Permitted	0.63	1.00		0.39	1.00			0.96			0.92	
Satd. Flow (perm)	1182	1836		736	1810			1752			1689	
Peak-hour factor, PHF	0.84	0.84	0.84	0.82	0.82	0.82	0.73	0.73	0.73	0.88	0.88	0.88
Adj. Flow (vph)	24	452	48	12	159	37	14	68	14	23	57	11
RTOR Reduction (vph)	0	7	0	0	14	0	0	10	0	0	8	0
Lane Group Flow (vph)	24	493	0	12	182	0	0	86	0	0	83	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	31.8	31.8		31.8	31.8			17.8			17.8	
Effective Green, g (s)	31.8	31.8		31.8	31.8			17.8			17.8	
Actuated g/C Ratio	0.53	0.53		0.53	0.53			0.30			0.30	
Clearance Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Lane Grp Cap (vph)	626	973		390	959			519			501	
v/s Ratio Prot		c0.27			0.10							
v/s Ratio Perm	0.02			0.02				0.05			c0.05	
v/c Ratio	0.04	0.51		0.03	0.19			0.17			0.17	
Uniform Delay, d1	6.8	9.1		6.7	7.4			15.6			15.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.1	1.9		0.1	0.4			0.7			0.7	
Delay (s)	6.9	11.0		6.9	7.8			16.3			16.3	
Level of Service	A	B		A	A			B			B	
Approach Delay (s)		10.8			7.8			16.3			16.3	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

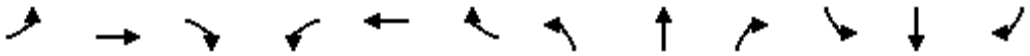
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	210	800	230	200	270	10	130	180	70	10	280	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	0.99		1.00	0.96		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3421		1770	3520		1770	1785		1770	1807	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3421		1770	3520		1770	1785		1770	1807	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	247	941	271	235	318	12	153	212	82	12	329	82
RTOR Reduction (vph)	0	30	0	0	3	0	0	14	0	0	10	0
Lane Group Flow (vph)	247	1182	0	235	327	0	153	280	0	12	401	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	17.2	29.9		12.7	25.4		8.7	31.8		1.2	24.3	
Effective Green, g (s)	17.2	29.9		12.7	25.4		8.7	31.8		1.2	24.3	
Actuated g/C Ratio	0.18	0.32		0.14	0.27		0.09	0.34		0.01	0.26	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	325	1092		240	955		164	606		22	469	
v/s Ratio Prot	0.14	c0.35		c0.13	0.09		c0.09	0.16		0.01	c0.22	
v/s Ratio Perm												
v/c Ratio	0.76	1.08		0.98	0.34		0.93	0.46		0.55	0.86	
Uniform Delay, d1	36.2	31.8		40.3	27.4		42.2	24.2		45.9	33.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	10.0	52.4		51.6	0.2		50.6	0.6		24.9	14.2	
Delay (s)	46.3	84.3		91.9	27.6		92.8	24.8		70.8	47.2	
Level of Service	D	F		F	C		F	C		E	D	
Approach Delay (s)		77.8			54.4			48.0			47.9	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	64.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	93.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



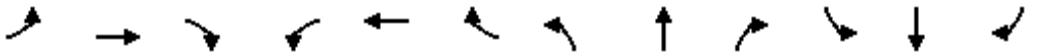
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	810	20	10	620	40	10	10	10	10	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	1.00		1.00	0.99			0.95			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1770	3526		1770	3507			1750			1696	
Flt Permitted	0.36	1.00		0.27	1.00			0.87			0.92	
Satd. Flow (perm)	666	3526		509	3507			1556			1585	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	12	953	24	12	729	47	12	12	12	12	12	35
RTOR Reduction (vph)	0	2	0	0	5	0	0	10	0	0	29	0
Lane Group Flow (vph)	12	975	0	12	771	0	0	26	0	0	30	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	19.9	19.9		19.9	19.9			5.4			5.4	
Effective Green, g (s)	19.9	19.9		19.9	19.9			5.4			5.4	
Actuated g/C Ratio	0.60	0.60		0.60	0.60			0.16			0.16	
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)	398	2107		304	2095			252			257	
v/s Ratio Prot		c0.28			0.22							
v/s Ratio Perm	0.02			0.02				0.02			c0.02	
v/c Ratio	0.03	0.46		0.04	0.37			0.10			0.12	
Uniform Delay, d1	2.7	3.7		2.8	3.5			11.9			11.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	0.2		0.1	0.1			0.2			0.2	
Delay (s)	2.8	3.9		2.8	3.6			12.1			12.1	
Level of Service	A	A		A	A			B			B	
Approach Delay (s)		3.9			3.6			12.1			12.1	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	4.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	33.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	500	10	10	710	10	10	10	10	10	10	30
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	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	1.00		1.00	1.00			0.95			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1770	3529		1770	3532			1750			1696	
Flt Permitted	0.33	1.00		0.43	1.00			0.87			0.92	
Satd. Flow (perm)	621	3529		792	3532			1540			1576	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	24	588	12	12	835	12	12	12	12	12	12	35
RTOR Reduction (vph)	0	1	0	0	1	0	0	10	0	0	31	0
Lane Group Flow (vph)	24	599	0	12	846	0	0	26	0	0	28	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	17.6	17.6		17.6	17.6			3.7			3.7	
Effective Green, g (s)	17.6	17.6		17.6	17.6			3.7			3.7	
Actuated g/C Ratio	0.60	0.60		0.60	0.60			0.13			0.13	
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)	373	2119		475	2121			194			199	
v/s Ratio Prot		0.17			c0.24							
v/s Ratio Perm	0.04			0.02				0.02			c0.02	
v/c Ratio	0.06	0.28		0.03	0.40			0.13			0.14	
Uniform Delay, d1	2.4	2.8		2.4	3.1			11.4			11.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.1	0.1		0.0	0.1			0.3			0.3	
Delay (s)	2.5	2.9		2.4	3.2			11.7			11.7	
Level of Service	A	A		A	A			B			B	
Approach Delay (s)		2.9			3.2			11.7			11.7	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	3.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	29.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	280	430	470	520	0	20	0	20	120	10	60
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
Lane Util. Factor		0.95			0.95			1.00			1.00	1.00
Frt		0.91			1.00			0.93			1.00	0.85
Flt Protected		1.00			0.98			0.98			0.96	1.00
Satd. Flow (prot)		3174			3392			1638			1635	1404
Flt Permitted		1.00			0.60			0.82			0.69	1.00
Satd. Flow (perm)		3174			2082			1379			1188	1404
Peak-hour factor, PHF	0.89	0.89	0.89	0.98	0.98	0.98	0.60	0.60	0.60	0.81	0.81	0.81
Adj. Flow (vph)	0	315	483	480	531	0	33	0	33	148	12	74
RTOR Reduction (vph)	0	253	0	0	0	0	0	23	0	0	0	53
Lane Group Flow (vph)	0	545	0	0	1011	0	0	43	0	0	160	21
Heavy Vehicles (%)	0%	4%	3%	5%	3%	0%	0%	0%	11%	12%	0%	15%
Turn Type		NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases				8			2			6		6
Actuated Green, G (s)		16.2			16.2			9.8			9.8	9.8
Effective Green, g (s)		16.2			16.2			9.8			9.8	9.8
Actuated g/C Ratio		0.48			0.48			0.29			0.29	0.29
Clearance Time (s)		4.0			4.0			4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)		1512			992			397			342	404
v/s Ratio Prot		0.17										
v/s Ratio Perm					c0.49			0.03			c0.13	0.02
v/c Ratio		0.36			1.76dl			0.11			0.47	0.05
Uniform Delay, d1		5.6			8.9			8.9			10.0	8.7
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		0.1			33.5			0.1			1.0	0.1
Delay (s)		5.8			42.4			9.0			11.0	8.8
Level of Service		A			D			A			B	A
Approach Delay (s)		5.8			42.4			9.0			10.3	
Approach LOS		A			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	23.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	34.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	340	0	0	690	290	300	10	160	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0	4.0			
Lane Util. Factor		0.95			0.95			1.00	1.00			
Frt		1.00			0.96			1.00	0.85			
Flt Protected		0.99			1.00			0.95	1.00			
Satd. Flow (prot)		3404			3280			1743	1404			
Flt Permitted		0.67			1.00			0.95	1.00			
Satd. Flow (perm)		2311			3280			1743	1404			
Peak-hour factor, PHF	0.90	0.90	0.90	0.94	0.94	0.94	0.84	0.84	0.84	0.92	0.92	0.92
Adj. Flow (vph)	89	378	0	0	734	309	357	12	190	0	0	0
RTOR Reduction (vph)	0	0	0	0	113	0	0	0	122	0	0	0
Lane Group Flow (vph)	0	467	0	0	930	0	0	369	68	0	0	0
Heavy Vehicles (%)	1%	6%	0%	0%	4%	8%	3%	33%	15%	0%	0%	0%
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Actuated Green, G (s)		14.4			14.4			12.4	12.4			
Effective Green, g (s)		14.4			14.4			12.4	12.4			
Actuated g/C Ratio		0.41			0.41			0.36	0.36			
Clearance Time (s)		4.0			4.0			4.0	4.0			
Vehicle Extension (s)		3.0			3.0			3.0	3.0			
Lane Grp Cap (vph)		956			1357			621	500			
v/s Ratio Prot					c0.28							
v/s Ratio Perm		0.20						0.21	0.05			
v/c Ratio		0.49			0.69			0.59	0.14			
Uniform Delay, d1		7.5			8.3			9.1	7.6			
Progression Factor		1.00			1.00			1.00	1.00			
Incremental Delay, d2		0.4			1.5			1.5	0.1			
Delay (s)		7.9			9.8			10.7	7.7			
Level of Service		A			A			B	A			
Approach Delay (s)		7.9			9.8			9.7			0.0	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	34.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

MOVEMENT SUMMARY

Site: 3_Belmont_Circle_PM

Belmont Circle
Baseline Plus Project Conditions
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Wesley Ave											
3L	L	53	15.3	0.454	9.5	LOS A	3.1	80.6	0.74	0.98	24.2
8T	T	309	3.0	0.454	9.5	LOS A	3.1	80.6	0.74	0.80	26.3
8R	R	53	17.0	0.454	9.5	LOS A	3.1	80.6	0.74	0.80	25.1
Approach		415	6.4	0.454	9.5	LOS A	3.1	80.6	0.74	0.82	25.8
East: Belmont/Thorne Ave											
1L	L	49	29.2	0.904	28.6	LOS D	16.3	421.4	0.98	1.26	20.7
6T	T	493	4.0	0.904	28.6	LOS D	16.3	421.4	0.98	1.20	20.9
6R	R	453	2.0	0.904	28.6	LOS D	16.3	421.4	0.98	1.20	21.9
Approach		996	4.3	0.904	28.6	LOS D	16.3	421.4	0.98	1.21	21.3
North: Golden State Blvd											
7L	L	95	4.7	0.222	6.0	LOS A	1.3	33.9	0.66	0.83	30.7
4T	T	10	10.0	0.222	6.0	LOS A	1.3	33.9	0.66	0.68	33.7
4R	R	105	0.0	0.222	6.0	LOS A	1.3	33.9	0.66	0.68	34.0
Approach		210	2.6	0.222	6.0	LOS A	1.3	33.9	0.66	0.75	32.2
West: Belmont Ave											
5L	L	155	1.9	0.479	7.3	LOS A	2.4	61.2	0.33	0.80	28.6
2T	T	490	5.0	0.479	7.3	LOS A	2.4	61.2	0.33	0.41	30.5
2R	R	25	8.8	0.479	7.3	LOS A	2.4	61.2	0.33	0.37	29.9
Approach		670	4.4	0.479	7.3	LOS A	2.4	61.2	0.33	0.50	29.9
South West: Arthur Ave											
13L	L	15	0.7	0.047	6.0	LOS A	0.3	7.6	0.79	0.76	23.0
18R	R	15	0.7	0.047	6.0	LOS A	0.3	7.6	0.79	0.62	22.8
Approach		31	0.7	0.047	6.0	LOS A	0.3	7.6	0.79	0.69	22.9
All Vehicles		2322	4.5	0.904	16.7	LOS C	16.3	421.4	0.72	0.89	25.0

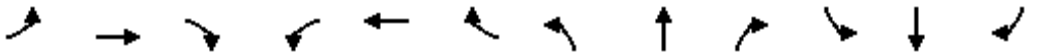
Level of Service (LOS) Method: Delay (HCM 2000).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
HCM Delay Model used. Geometric Delay not included.

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Movement	EBT	EBR	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2	SWL2
Lane Configurations										
Volume (vph)	520	110	420	200	10	320	540	10	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.0	4.2	4.2			4.9	4.9		4.9
Lane Util. Factor	1.00	1.00	1.00	1.00			0.95	1.00		1.00
Frt	1.00	0.85	1.00	0.85			1.00	0.85		1.00
Flt Protected	1.00	1.00	1.00	1.00			0.98	1.00		0.95
Satd. Flow (prot)	1863	1583	1863	1583			3475	1583		1770
Flt Permitted	1.00	1.00	1.00	1.00			0.98	1.00		0.74
Satd. Flow (perm)	1863	1583	1863	1583			3475	1583		1377
Peak-hour factor, PHF	0.94	0.94	0.88	0.88	0.88	0.69	0.69	0.69	0.69	0.88
Adj. Flow (vph)	553	117	477	227	11	464	783	14	14	23
RTOR Reduction (vph)	0	0	0	21	0	0	0	13	0	0
Lane Group Flow (vph)	553	117	477	217	0	0	1247	15	0	23
Turn Type	NA	Free	NA	Perm		Perm	NA	Perm		D.Pm
Protected Phases	4		4				2			
Permitted Phases		Free		4		2		2		2
Actuated Green, G (s)	24.0	57.1	24.0	24.0			24.0	24.0		24.0
Effective Green, g (s)	24.0	57.1	24.0	24.0			24.0	24.0		24.0
Actuated g/C Ratio	0.42	1.00	0.42	0.42			0.42	0.42		0.42
Clearance Time (s)	4.2		4.2	4.2			4.9	4.9		4.9
Lane Grp Cap (vph)	783	1583	783	665			1460	665		578
v/s Ratio Prot	c0.30		0.26							
v/s Ratio Perm		0.07		0.14			0.36	0.01		0.02
v/c Ratio	0.71	0.07	0.61	0.33			0.85	0.02		0.04
Uniform Delay, d1	13.6	0.0	12.9	11.1			15.0	9.7		9.8
Progression Factor	1.00	1.00	1.00	1.00			1.00	1.00		1.00
Incremental Delay, d2	5.3	0.1	3.5	1.3			6.6	0.1		0.1
Delay (s)	19.0	0.1	16.4	12.4			21.5	9.7		9.9
Level of Service	B	A	B	B			C	A		A
Approach Delay (s)	15.7		15.1				21.3			
Approach LOS	B		B				C			

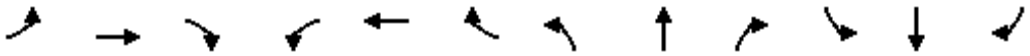
Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	57.1	Sum of lost time (s)	9.1
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	150	320	40	20	450	230	90	560	50	90	270	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.9		4.1		4.1	4.1	4.1
Lane Util. Factor		0.95			0.95	1.00		0.95		1.00	0.95	1.00
Frt		0.99			1.00	0.85		0.99		1.00	1.00	0.85
Flt Protected		0.99			1.00	1.00		0.99		0.95	1.00	1.00
Satd. Flow (prot)		3348			3486	1599		3498		1787	3471	1583
Flt Permitted		0.66			0.92	1.00		0.86		0.26	1.00	1.00
Satd. Flow (perm)		2250			3222	1599		3017		482	3471	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.83	0.83	0.83	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	155	330	41	24	542	277	105	651	58	105	314	93
RTOR Reduction (vph)	0	12	0	0	0	81	0	10	0	0	0	54
Lane Group Flow (vph)	0	514	0	0	566	196	0	804	0	105	314	39
Heavy Vehicles (%)	3%	3%	29%	11%	3%	1%	4%	1%	2%	1%	4%	2%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4		4	2			2		2
Actuated Green, G (s)		23.0			23.0	23.0		23.0		23.0	23.0	23.0
Effective Green, g (s)		23.0			23.0	23.0		23.0		23.0	23.0	23.0
Actuated g/C Ratio		0.42			0.42	0.42		0.42		0.42	0.42	0.42
Clearance Time (s)		4.9			4.9	4.9		4.1		4.1	4.1	4.1
Lane Grp Cap (vph)		940			1347	668		1261		201	1451	661
v/s Ratio Prot											0.09	
v/s Ratio Perm		c0.23			0.18	0.12		c0.27		0.22		0.02
v/c Ratio		0.55			0.42	0.29		0.64		0.52	0.22	0.06
Uniform Delay, d1		12.1			11.3	10.6		12.7		11.9	10.2	9.5
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2		2.3			1.0	1.1		2.5		9.4	0.3	0.2
Delay (s)		14.4			12.3	11.7		15.2		21.3	10.6	9.7
Level of Service		B			B	B		B		C	B	A
Approach Delay (s)		14.4			12.1			15.2			12.6	
Approach LOS		B			B			B			B	

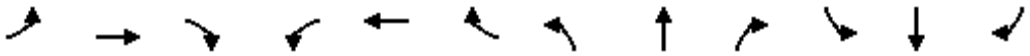
Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	92.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	330	200	50	600	0	0	0	0	50	450	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2	5.2		5.2						5.6	
Lane Util. Factor		0.95	1.00		0.95						0.95	
Frt		1.00	0.85		1.00						0.99	
Flt Protected		1.00	1.00		1.00						1.00	
Satd. Flow (prot)		3471	1615		3526						3488	
Flt Permitted		1.00	1.00		0.89						1.00	
Satd. Flow (perm)		3471	1615		3134						3488	
Peak-hour factor, PHF	0.90	0.90	0.90	0.81	0.81	0.81	0.92	0.92	0.92	0.85	0.85	0.85
Adj. Flow (vph)	0	367	222	62	741	0	0	0	0	59	529	35
RTOR Reduction (vph)	0	0	151	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	367	71	0	803	0	0	0	0	0	618	0
Heavy Vehicles (%)	0%	4%	0%	2%	2%	0%	0%	0%	0%	3%	2%	3%
Turn Type		NA	Perm	Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases			4	8						6		
Actuated Green, G (s)		22.3	22.3		22.3						36.9	
Effective Green, g (s)		22.3	22.3		22.3						36.9	
Actuated g/C Ratio		0.32	0.32		0.32						0.53	
Clearance Time (s)		5.2	5.2		5.2						5.6	
Vehicle Extension (s)		0.2	0.2		0.2						0.2	
Lane Grp Cap (vph)		1105	514		998						1838	
v/s Ratio Prot		0.11										
v/s Ratio Perm			0.04		c0.26						0.18	
v/c Ratio		0.33	0.14		0.80						0.34	
Uniform Delay, d1		18.2	17.0		21.9						9.5	
Progression Factor		1.00	1.00		0.67						1.00	
Incremental Delay, d2		0.1	0.0		4.2						0.5	
Delay (s)		18.2	17.0		18.8						10.0	
Level of Service		B	B		B						B	
Approach Delay (s)		17.8			18.8			0.0			10.0	
Approach LOS		B			B			A			B	

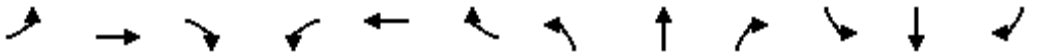
Intersection Summary			
HCM 2000 Control Delay	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	68.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



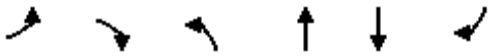
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	360	0	0	370	30	280	610	60	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6			5.6	5.6	5.6	5.6	5.6			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1805	3471			3505	1615	1770	1881	1553			
Flt Permitted	0.44	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	841	3471			3505	1615	1770	1881	1553			
Peak-hour factor, PHF	0.94	0.94	0.94	0.82	0.82	0.82	0.84	0.84	0.84	0.92	0.92	0.92
Adj. Flow (vph)	32	383	0	0	451	37	333	726	71	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	26	0	0	18	0	0	0
Lane Group Flow (vph)	32	383	0	0	451	11	333	726	53	0	0	0
Heavy Vehicles (%)	0%	4%	0%	0%	3%	0%	2%	1%	4%	0%	0%	0%
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	20.0	20.0			20.0	20.0	38.8	38.8	38.8			
Effective Green, g (s)	20.0	20.0			20.0	20.0	38.8	38.8	38.8			
Actuated g/C Ratio	0.29	0.29			0.29	0.29	0.55	0.55	0.55			
Clearance Time (s)	5.6	5.6			5.6	5.6	5.6	5.6	5.6			
Lane Grp Cap (vph)	240	991			1001	461	981	1042	860			
v/s Ratio Prot		0.11			c0.13			c0.39				
v/s Ratio Perm	0.04					0.01	0.19		0.03			
v/c Ratio	0.13	0.39			0.45	0.02	0.34	0.70	0.06			
Uniform Delay, d1	18.6	20.1			20.5	18.0	8.6	11.3	7.2			
Progression Factor	0.52	0.47			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	1.1	1.1			1.5	0.1	0.9	3.9	0.1			
Delay (s)	10.8	10.4			22.0	18.1	9.5	15.2	7.3			
Level of Service	B	B			C	B	A	B	A			
Approach Delay (s)		10.5			21.7			13.0			0.0	
Approach LOS		B			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	79.4%	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	260	430	20	300	0	0	0	0	10	800	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.0	3.7	4.2						4.9	4.9
Lane Util. Factor		1.00	1.00	1.00	1.00						0.95	1.00
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						1.00	1.00
Satd. Flow (prot)		1863	1583	1770	1863						3537	1583
Flt Permitted		1.00	1.00	0.95	1.00						1.00	1.00
Satd. Flow (perm)		1863	1583	1770	1863						3537	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.74	0.74	0.74	0.92	0.92	0.92	0.86	0.86	0.86
Adj. Flow (vph)	0	289	478	27	405	0	0	0	0	12	930	279
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	141
Lane Group Flow (vph)	0	289	478	27	405	0	0	0	0	0	942	138
Turn Type		NA	Free	Prot	NA					Perm	NA	Perm
Protected Phases		4		3	8						6	
Permitted Phases			Free							6		6
Actuated Green, G (s)		19.8	70.0	2.7	26.2						34.7	34.7
Effective Green, g (s)		19.8	70.0	2.7	26.2						34.7	34.7
Actuated g/C Ratio		0.28	1.00	0.04	0.37						0.50	0.50
Clearance Time (s)		4.2		3.7	4.2						4.9	4.9
Vehicle Extension (s)		4.9		2.0	4.6						5.2	5.2
Lane Grp Cap (vph)		526	1583	68	697						1753	784
v/s Ratio Prot		0.16		0.02	c0.22							
v/s Ratio Perm			0.30								0.27	0.09
v/c Ratio		0.55	0.30	0.40	0.58						0.54	0.18
Uniform Delay, d1		21.3	0.0	32.9	17.5						12.1	9.8
Progression Factor		1.00	1.00	0.73	1.20						1.00	1.00
Incremental Delay, d2		2.0	0.5	1.3	1.7						1.2	0.5
Delay (s)		23.3	0.5	25.2	22.6						13.3	10.2
Level of Service		C	A	C	C						B	B
Approach Delay (s)		9.1			22.8			0.0			12.6	
Approach LOS		A			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



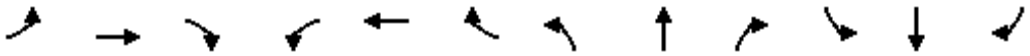
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	270	0	320	920	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2			4.9		
Lane Util. Factor	1.00			0.91		
Frt	1.00			1.00		
Flt Protected	0.95			0.99		
Satd. Flow (prot)	1770			5021		
Flt Permitted	0.95			0.99		
Satd. Flow (perm)	1770			5021		
Peak-hour factor, PHF	0.89	0.89	0.93	0.93	0.92	0.92
Adj. Flow (vph)	303	0	344	989	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	303	0	0	1333	0	0
Turn Type	Prot		Perm	NA		
Protected Phases	4			2		
Permitted Phases			2			
Actuated Green, G (s)	19.3			41.6		
Effective Green, g (s)	19.3			41.6		
Actuated g/C Ratio	0.28			0.59		
Clearance Time (s)	4.2			4.9		
Vehicle Extension (s)	5.7			5.2		
Lane Grp Cap (vph)	488			2983		
v/s Ratio Prot	c0.17					
v/s Ratio Perm				0.27		
v/c Ratio	0.62			0.45		
Uniform Delay, d1	22.2			7.8		
Progression Factor	0.32			1.00		
Incremental Delay, d2	3.7			0.5		
Delay (s)	10.7			8.3		
Level of Service	B			A		
Approach Delay (s)	10.7			8.3	0.0	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



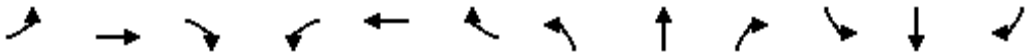
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	110	0	0	0	260	1000
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2					4.9
Lane Util. Factor	1.00					0.91
Frt	1.00					1.00
Flt Protected	0.95					0.99
Satd. Flow (prot)	1770					5033
Flt Permitted	0.95					0.99
Satd. Flow (perm)	1770					5033
Peak-hour factor, PHF	0.75	0.75	0.92	0.92	0.89	0.89
Adj. Flow (vph)	147	0	0	0	292	1124
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	147	0	0	0	0	1416
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Actuated Green, G (s)	15.2					67.8
Effective Green, g (s)	15.2					67.8
Actuated g/C Ratio	0.17					0.74
Clearance Time (s)	4.2					4.9
Vehicle Extension (s)	4.8					5.4
Lane Grp Cap (vph)	292					3705
v/s Ratio Prot	c0.08					
v/s Ratio Perm						0.28
v/c Ratio	0.50					0.38
Uniform Delay, d1	35.0					4.5
Progression Factor	0.45					1.00
Incremental Delay, d2	2.6					0.3
Delay (s)	18.4					4.8
Level of Service	B					A
Approach Delay (s)	18.4		0.0			4.8
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	6.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	92.1	Sum of lost time (s)	9.1
Intersection Capacity Utilization	85.2%	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)	20	240	0	0	100	240	10	980	550	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.2	4.2		4.9	4.9			
Lane Util. Factor	1.00	1.00			1.00	1.00		0.91	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	1863			1863	1583		5083	1583			
Flt Permitted	0.65	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1211	1863			1863	1583		5083	1583			
Peak-hour factor, PHF	0.87	0.87	0.87	0.82	0.82	0.82	0.88	0.88	0.88	0.92	0.92	0.92
Adj. Flow (vph)	23	276	0	0	122	293	11	1114	625	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	39	0	0	154	0	0	0
Lane Group Flow (vph)	23	276	0	0	122	254	0	1125	471	0	0	0
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	21.7	21.7			21.7	21.7		61.3	61.3			
Effective Green, g (s)	21.7	21.7			21.7	21.7		61.3	61.3			
Actuated g/C Ratio	0.24	0.24			0.24	0.24		0.67	0.67			
Clearance Time (s)	4.2	4.2			4.2	4.2		4.9	4.9			
Vehicle Extension (s)	4.5	4.5			4.8	4.8		3.8	3.8			
Lane Grp Cap (vph)	285	438			438	372		3383	1053			
v/s Ratio Prot		0.15			0.07							
v/s Ratio Perm	0.02					c0.16		0.22	c0.30			
v/c Ratio	0.08	0.63			0.28	0.68		0.33	0.45			
Uniform Delay, d1	27.4	31.6			28.8	32.1		6.6	7.3			
Progression Factor	1.60	1.48			1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.2	3.5			0.7	6.3		0.3	1.4			
Delay (s)	44.0	50.3			29.5	38.4		6.9	8.7			
Level of Service	D	D			C	D		A	A			
Approach Delay (s)		49.8			35.8			7.5			0.0	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	92.1	Sum of lost time (s)	9.1
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



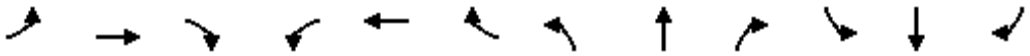
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	510	40	130	300	0	0	0	0	180	810	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2		4.2	4.2						4.9	
Lane Util. Factor		0.95		1.00	0.95						0.91	
Frt		0.99		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		3438		1770	3539						4963	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		3438		1770	3539						4963	
Peak-hour factor, PHF	0.97	0.97	0.97	0.83	0.83	0.83	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	0	526	41	157	361	0	0	0	0	202	910	135
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	19	0
Lane Group Flow (vph)	0	558	0	157	361	0	0	0	0	0	1228	0
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases										6		
Actuated Green, G (s)		19.2		10.5	33.9						27.0	
Effective Green, g (s)		19.2		10.5	33.9						27.0	
Actuated g/C Ratio		0.27		0.15	0.48						0.39	
Clearance Time (s)		4.2		4.2	4.2						4.9	
Vehicle Extension (s)		6.8		2.0	6.8						5.4	
Lane Grp Cap (vph)		942		265	1713						1914	
v/s Ratio Prot		c0.16		c0.09	0.10							
v/s Ratio Perm											0.25	
v/c Ratio		0.59		0.59	0.21						0.64	
Uniform Delay, d1		22.0		27.8	10.4						17.6	
Progression Factor		1.00		0.85	2.08						1.00	
Incremental Delay, d2		2.1		2.2	0.2						1.7	
Delay (s)		24.1		25.8	21.7						19.2	
Level of Service		C		C	C						B	
Approach Delay (s)		24.1			23.0			0.0			19.2	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	13.3
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

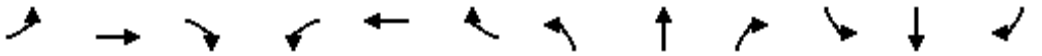
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	540	0	0	400	100	40	1300	30	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.7	4.2			4.2	4.2		4.9	4.9			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.91	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	3539			3539	1583		5078	1583			
Flt Permitted	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1770	3539			3539	1583		5078	1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.84	0.84	0.84	0.86	0.86	0.86	0.92	0.92	0.92
Adj. Flow (vph)	147	568	0	0	476	119	47	1512	35	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	77	0	0	25	0	0	0
Lane Group Flow (vph)	147	568	0	0	476	43	0	1559	10	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases						8	2		2			
Actuated Green, G (s)	12.5	41.2			25.0	25.0		19.7	19.7			
Effective Green, g (s)	12.5	41.2			25.0	25.0		19.7	19.7			
Actuated g/C Ratio	0.18	0.59			0.36	0.36		0.28	0.28			
Clearance Time (s)	3.7	4.2			4.2	4.2		4.9	4.9			
Vehicle Extension (s)	2.0	5.1			5.1	5.1		0.2	0.2			
Lane Grp Cap (vph)	316	2082			1263	565		1429	445			
v/s Ratio Prot	c0.08	0.16			c0.13							
v/s Ratio Perm						0.03		0.31	0.01			
v/c Ratio	0.47	0.27			0.38	0.08		1.09	0.02			
Uniform Delay, d1	25.8	7.1			16.7	14.9		25.1	18.2			
Progression Factor	0.84	0.33			1.00	1.00		1.00	1.00			
Incremental Delay, d2	4.0	0.3			0.9	0.3		52.7	0.1			
Delay (s)	25.7	2.6			17.6	15.1		77.8	18.3			
Level of Service	C	A			B	B		E	B			
Approach Delay (s)		7.3			17.1			76.5			0.0	
Approach LOS		A			B			E			A	

Intersection Summary			
HCM 2000 Control Delay	47.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



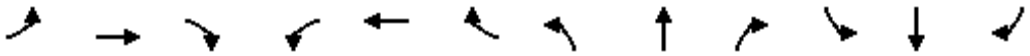
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	480	60	100	480	100	40	490	80	110	270	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	0.97		1.00	0.98		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3480		1770	3447		1770	3465		1770	3395	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3480		1770	3447		1770	3465		1770	3395	
Peak-hour factor, PHF	0.94	0.94	0.94	0.85	0.85	0.85	0.77	0.77	0.77	0.88	0.88	0.88
Adj. Flow (vph)	96	511	64	118	565	118	52	636	104	125	307	114
RTOR Reduction (vph)	0	9	0	0	16	0	0	12	0	0	31	0
Lane Group Flow (vph)	96	566	0	118	667	0	52	728	0	125	390	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	7.3	19.9		8.1	20.7		4.2	23.2		8.3	27.3	
Effective Green, g (s)	7.3	19.9		8.1	20.7		4.2	23.2		8.3	27.3	
Actuated g/C Ratio	0.10	0.26		0.11	0.27		0.05	0.30		0.11	0.36	
Clearance Time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Vehicle Extension (s)	2.0	3.5		2.0	3.5		2.0	3.5		2.0	3.5	
Lane Grp Cap (vph)	168	902		186	930		96	1048		191	1208	
v/s Ratio Prot	0.05	0.16		c0.07	c0.19		0.03	c0.21		c0.07	0.11	
v/s Ratio Perm												
v/c Ratio	0.57	0.63		0.63	0.72		0.54	0.69		0.65	0.32	
Uniform Delay, d1	33.2	25.1		32.9	25.3		35.3	23.6		32.8	18.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.9	1.4		5.1	2.8		3.3	2.1		6.0	0.2	
Delay (s)	36.1	26.6		38.0	28.1		38.6	25.7		38.8	18.2	
Level of Service	D	C		D	C		D	C		D	B	
Approach Delay (s)		27.9			29.6			26.6			22.9	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	27.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	76.7	Sum of lost time (s)	17.2
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



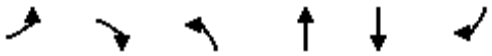
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	460	180	120	380	160	190	750	70	140	540	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9		4.0	4.9	4.9
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3382		1770	3494		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3382		1770	3494		1770	3539	1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.87	0.87	0.87	0.91	0.91	0.91	0.84	0.84	0.84
Adj. Flow (vph)	146	479	188	138	437	184	209	824	77	167	643	95
RTOR Reduction (vph)	0	0	137	0	48	0	0	6	0	0	0	70
Lane Group Flow (vph)	146	479	51	138	573	0	209	895	0	167	643	25
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases			4									2
Actuated Green, G (s)	11.5	22.6	22.6	11.2	22.3		13.7	24.8		12.2	23.3	23.3
Effective Green, g (s)	11.5	22.6	22.6	11.2	22.3		13.7	24.8		12.2	23.3	23.3
Actuated g/C Ratio	0.13	0.26	0.26	0.13	0.25		0.15	0.28		0.14	0.26	0.26
Clearance Time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9		4.0	4.9	4.9
Vehicle Extension (s)	2.0	4.5	4.5	2.0	4.5		2.0	5.0		2.0	5.0	5.0
Lane Grp Cap (vph)	229	902	403	223	851		273	978		243	930	416
v/s Ratio Prot	c0.08	0.14		0.08	c0.17		c0.12	c0.26		0.09	0.18	
v/s Ratio Perm			0.03									0.02
v/c Ratio	0.64	0.53	0.13	0.62	0.67		0.77	0.91		0.69	0.69	0.06
Uniform Delay, d1	36.6	28.4	25.4	36.7	29.9		35.9	30.9		36.4	29.4	24.4
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	4.2	0.9	0.2	3.6	2.5		10.9	13.3		6.3	2.8	0.1
Delay (s)	40.8	29.4	25.6	40.2	32.4		46.8	44.2		42.7	32.3	24.6
Level of Service	D	C	C	D	C		D	D		D	C	C
Approach Delay (s)		30.6			33.8			44.7			33.4	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	36.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	88.6	Sum of lost time (s)	17.8
Intersection Capacity Utilization	68.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



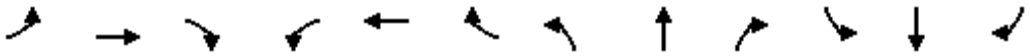
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	360	480	10	70	0	0	0	0	10	530	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7	4.0		3.7						4.1	
Lane Util. Factor		1.00	1.00		1.00						0.95	
Frt		1.00	0.85		1.00						0.97	
Flt Protected		1.00	1.00		0.99						1.00	
Satd. Flow (prot)		1863	1583		1852						3415	
Flt Permitted		1.00	1.00		0.95						1.00	
Satd. Flow (perm)		1863	1583		1769						3415	
Peak-hour factor, PHF	0.96	0.96	0.96	0.88	0.88	0.88	0.92	0.92	0.92	0.82	0.82	0.82
Adj. Flow (vph)	0	375	500	11	80	0	0	0	0	12	646	195
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	31	0
Lane Group Flow (vph)	0	375	500	0	91	0	0	0	0	0	822	0
Turn Type		NA	Free	Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases			Free	8						6		
Actuated Green, G (s)		21.1	70.0		21.1						41.1	
Effective Green, g (s)		21.1	70.0		21.1						41.1	
Actuated g/C Ratio		0.30	1.00		0.30						0.59	
Clearance Time (s)		3.7			3.7						4.1	
Vehicle Extension (s)		5.0			4.8						4.6	
Lane Grp Cap (vph)		561	1583		533						2005	
v/s Ratio Prot		c0.20										
v/s Ratio Perm			0.32		0.05						0.24	
v/c Ratio		0.67	0.32		0.17						0.41	
Uniform Delay, d1		21.4	0.0		18.0						7.9	
Progression Factor		1.00	1.00		1.00						0.79	
Incremental Delay, d2		4.0	0.5		0.3						0.6	
Delay (s)		25.4	0.5		18.3						6.8	
Level of Service		C	A		B						A	
Approach Delay (s)		11.2			18.3			0.0			6.8	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	7.8
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



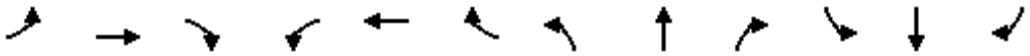
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	370	0	80	580	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6			4.6		
Lane Util. Factor	1.00			0.95		
Frt	1.00			1.00		
Flt Protected	0.95			0.99		
Satd. Flow (prot)	1770			3518		
Flt Permitted	0.95			0.99		
Satd. Flow (perm)	1770			3518		
Peak-hour factor, PHF	0.96	0.96	0.72	0.72	0.92	0.92
Adj. Flow (vph)	385	0	111	806	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	385	0	0	917	0	0
Turn Type	Prot		Perm	NA		
Protected Phases	4			2		
Permitted Phases			2			
Actuated Green, G (s)	22.2			40.8		
Effective Green, g (s)	22.2			40.8		
Actuated g/C Ratio	0.31			0.57		
Clearance Time (s)	4.6			4.6		
Vehicle Extension (s)	5.0			4.5		
Lane Grp Cap (vph)	544			1988		
v/s Ratio Prot	c0.22					
v/s Ratio Perm				0.26		
v/c Ratio	0.71			0.46		
Uniform Delay, d1	22.1			9.2		
Progression Factor	1.00			1.00		
Incremental Delay, d2	5.2			0.8		
Delay (s)	27.4			10.0		
Level of Service	C			B		
Approach Delay (s)	27.4			10.0	0.0	
Approach LOS	C			B	A	

Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	72.2	Sum of lost time (s)	9.2
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



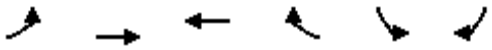
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	230	170	0	0	0	0	0	0	360	660	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.2							4.6	4.6	
Lane Util. Factor		0.95	1.00							1.00	0.95	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		3539	1583							1770	3539	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		3539	1583							1770	3539	
Peak-hour factor, PHF	0.84	0.84	0.84	0.92	0.92	0.92	0.92	0.92	0.92	0.86	0.86	0.86
Adj. Flow (vph)	0	274	202	0	0	0	0	0	0	419	767	0
RTOR Reduction (vph)	0	0	26	0	0	0	0	0	0	166	0	0
Lane Group Flow (vph)	0	274	176	0	0	0	0	0	0	253	767	0
Turn Type		NA	Perm							Split	NA	
Protected Phases		4								6	6	
Permitted Phases			4									
Actuated Green, G (s)		19.0	19.0							42.2	42.2	
Effective Green, g (s)		19.0	19.0							42.2	42.2	
Actuated g/C Ratio		0.27	0.27							0.60	0.60	
Clearance Time (s)		4.2	4.2							4.6	4.6	
Vehicle Extension (s)		6.4	6.4							5.6	5.6	
Lane Grp Cap (vph)		960	429							1067	2133	
v/s Ratio Prot		0.08								0.14	c0.22	
v/s Ratio Perm			c0.11									
v/c Ratio		0.29	0.41							0.24	0.36	
Uniform Delay, d1		20.1	20.9							6.4	7.0	
Progression Factor		1.00	1.00							0.01	0.58	
Incremental Delay, d2		0.5	2.0							0.5	0.4	
Delay (s)		20.7	22.9							0.6	4.5	
Level of Service		C	C							A	A	
Approach Delay (s)		21.6			0.0			0.0			3.1	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	35.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	230	360	0	0	0	0	0	430	1090	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6						4.6	4.0			
Lane Util. Factor	1.00	1.00						0.95	1.00			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						1.00	1.00			
Satd. Flow (prot)	1770	1863						3539	1583			
Flt Permitted	0.95	1.00						1.00	1.00			
Satd. Flow (perm)	1770	1863						3539	1583			
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.70	0.70	0.70	0.92	0.92	0.92
Adj. Flow (vph)	271	424	0	0	0	0	0	614	1557	0	0	0
RTOR Reduction (vph)	197	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	74	424	0	0	0	0	0	614	1557	0	0	0
Turn Type	Split	NA						NA	Free			
Protected Phases	4	4						2				
Permitted Phases									Free			
Actuated Green, G (s)	24.6	24.6						56.2	90.0			
Effective Green, g (s)	24.6	24.6						56.2	90.0			
Actuated g/C Ratio	0.27	0.27						0.62	1.00			
Clearance Time (s)	4.6	4.6						4.6				
Vehicle Extension (s)	5.0	5.0						4.5				
Lane Grp Cap (vph)	483	509						2209	1583			
v/s Ratio Prot	0.04	0.23						0.17				
v/s Ratio Perm									c0.98			
v/c Ratio	0.15	0.83						0.28	0.98			
Uniform Delay, d1	24.8	30.8						7.7	0.0			
Progression Factor	1.00	1.00						1.00	1.00			
Incremental Delay, d2	0.3	12.4						0.3	19.0			
Delay (s)	25.1	43.1						8.0	19.0			
Level of Service	C	D						A	B			
Approach Delay (s)		36.1			0.0			15.9			0.0	
Approach LOS		D			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	61.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

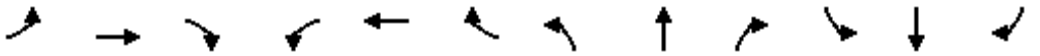


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	20	420	810	630	290	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8	4.8	4.8	
Lane Util. Factor		0.95	0.95	1.00	0.97	
Frt		1.00	1.00	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3491	3574	1583	3400	
Flt Permitted		0.90	1.00	1.00	0.95	
Satd. Flow (perm)		3143	3574	1583	3400	
Peak-hour factor, PHF	0.87	0.87	0.86	0.86	0.89	0.89
Adj. Flow (vph)	23	483	942	733	326	11
RTOR Reduction (vph)	0	0	0	352	4	0
Lane Group Flow (vph)	0	506	942	381	333	0
Heavy Vehicles (%)	7%	3%	1%	2%	3%	0%
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)		31.2	31.2	31.2	19.2	
Effective Green, g (s)		31.2	31.2	31.2	19.2	
Actuated g/C Ratio		0.52	0.52	0.52	0.32	
Clearance Time (s)		4.8	4.8	4.8	4.8	
Lane Grp Cap (vph)		1634	1858	823	1088	
v/s Ratio Prot			c0.26		c0.10	
v/s Ratio Perm		0.16		0.24		
v/c Ratio		0.31	0.51	0.46	0.31	
Uniform Delay, d1		8.2	9.4	9.1	15.4	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.5	1.0	1.9	0.7	
Delay (s)		8.7	10.4	11.0	16.1	
Level of Service		A	B	B	B	
Approach Delay (s)		8.7	10.6		16.1	
Approach LOS		A	B		B	

Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	73.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBT	WBR	WBR2	NBL	NBT	NBR2	SBL	SBT	SBR	SWR2
Lane Configurations												
Volume (vph)	160	20	80	670	10	10	510	20	200	280	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6		4.6	4.6			4.6	4.6	4.6	4.6		4.2
Lane Util. Factor	1.00		1.00	1.00			0.95	1.00	1.00	1.00		1.00
Frt	0.98		1.00	0.85			1.00	0.85	1.00	0.99		0.86
Flt Protected	1.00		1.00	1.00			1.00	1.00	0.95	1.00		1.00
Satd. Flow (prot)	1834		1863	1583			3536	1583	1770	1853		1611
Flt Permitted	1.00		1.00	1.00			1.00	1.00	0.95	1.00		1.00
Satd. Flow (perm)	1834		1863	1583			3536	1583	1770	1853		1611
Peak-hour factor, PHF	0.85	0.85	0.79	0.79	0.79	0.71	0.71	0.71	0.95	0.95	0.95	0.50
Adj. Flow (vph)	188	24	101	848	13	14	718	28	211	295	11	40
RTOR Reduction (vph)	5	0	0	24	0	0	0	23	0	1	0	39
Lane Group Flow (vph)	207	0	101	837	0	0	732	5	211	305	0	1
Turn Type	NA		NA	custom		Split	NA	Perm	Split	NA		Prot
Protected Phases	6		6	2		4	4		5	5		8
Permitted Phases								4				
Actuated Green, G (s)	21.8		21.8	61.5			18.4	18.4	35.1	35.1		2.7
Effective Green, g (s)	21.8		21.8	61.5			18.4	18.4	35.1	35.1		2.7
Actuated g/C Ratio	0.23		0.23	0.64			0.19	0.19	0.37	0.37		0.03
Clearance Time (s)	4.6		4.6	4.6			4.6	4.6	4.6	4.6		4.2
Vehicle Extension (s)	5.0		5.0	5.0			4.0	4.0	5.0	5.0		2.0
Lane Grp Cap (vph)	416		423	1014			677	303	647	677		45
v/s Ratio Prot	0.11		0.05	c0.53			c0.21		0.12	0.16		c0.00
v/s Ratio Perm								0.00				
v/c Ratio	0.50		0.24	0.83			1.08	0.02	0.33	0.45		0.03
Uniform Delay, d1	32.3		30.3	13.2			38.8	31.5	21.9	23.1		45.4
Progression Factor	1.00		1.00	1.00			1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	1.9		0.6	7.7			58.6	0.0	1.3	2.2		0.1
Delay (s)	34.3		30.9	20.8			97.4	31.5	23.3	25.3		45.5
Level of Service	C		C	C			F	C	C	C		D
Approach Delay (s)	34.3		21.9				95.0			24.5		
Approach LOS	C		C				F			C		

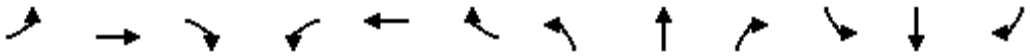
Intersection Summary			
HCM 2000 Control Delay	46.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	96.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	300	30	10	420	0	160	0	170	110	590	110
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
Lane Util. Factor		1.00		1.00	1.00		1.00		1.00	1.00	1.00	1.00
Frt		0.99		1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		1840		1770	1863		1770		1583	1770	1863	1583
Flt Permitted		1.00		0.48	1.00		0.18		1.00	0.95	1.00	1.00
Satd. Flow (perm)		1840		888	1863		330		1583	1770	1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.91	0.91	0.88	0.88	0.88	0.93	0.93	0.93
Adj. Flow (vph)	0	316	32	11	462	0	182	0	193	118	634	118
RTOR Reduction (vph)	0	6	0	0	0	0	0	0	113	0	0	69
Lane Group Flow (vph)	0	342	0	11	462	0	182	0	80	118	634	49
Turn Type		NA		Perm	NA		D.Pm		Perm	Perm	NA	Perm
Protected Phases					4						2	
Permitted Phases		4		4			2		2	2		2
Actuated Green, G (s)		25.0		25.0	25.0		24.0		24.0	24.0	24.0	24.0
Effective Green, g (s)		25.0		25.0	25.0		24.0		24.0	24.0	24.0	24.0
Actuated g/C Ratio		0.43		0.43	0.43		0.41		0.41	0.41	0.41	0.41
Clearance Time (s)		4.5		4.5	4.5		4.5		4.5	4.5	4.5	4.5
Lane Grp Cap (vph)		793		382	803		136		655	732	770	655
v/s Ratio Prot					c0.25						0.34	
v/s Ratio Perm		0.19		0.01			c0.55		0.05	0.07		0.03
v/c Ratio		0.43		0.03	0.58		1.34		0.12	0.16	0.82	0.07
Uniform Delay, d1		11.5		9.5	12.5		17.0		10.5	10.7	15.1	10.3
Progression Factor		1.00		1.00	1.00		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		1.7		0.1	3.0		193.4		0.4	0.5	9.7	0.2
Delay (s)		13.2		9.6	15.5		210.4		10.9	11.1	24.8	10.5
Level of Service		B		A	B		F		B	B	C	B
Approach Delay (s)		13.2			15.3			107.7			21.0	
Approach LOS		B			B			F			C	

Intersection Summary			
HCM 2000 Control Delay	34.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	58.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

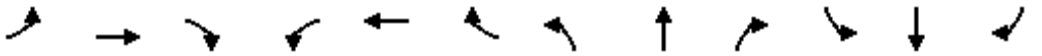
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	260	100	10	400	190	130	960	20	0	0	0
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			4.2	4.2			
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00			
Frt	1.00	0.96		1.00	0.95			1.00	0.85			
Flt Protected	0.95	1.00		0.95	1.00			0.99	1.00			
Satd. Flow (prot)	1770	1785		1770	1773			1852	1583			
Flt Permitted	0.25	1.00		0.44	1.00			0.99	1.00			
Satd. Flow (perm)	463	1785		819	1773			1852	1583			
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.62	0.62	0.62	0.92	0.92	0.92
Adj. Flow (vph)	357	371	143	14	571	271	210	1548	32	0	0	0
RTOR Reduction (vph)	0	23	0	0	0	0	0	0	23	0	0	0
Lane Group Flow (vph)	357	491	0	14	842	0	0	1758	10	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm			
Protected Phases		8			4			6				
Permitted Phases	8			4			6		6			
Actuated Green, G (s)	41.3	41.3		41.3	41.3			10.0	10.0			
Effective Green, g (s)	41.3	41.3		41.3	41.3			10.0	10.0			
Actuated g/C Ratio	0.69	0.69		0.69	0.69			0.17	0.17			
Clearance Time (s)	4.5	4.5		4.5	4.5			4.2	4.2			
Lane Grp Cap (vph)	318	1228		563	1220			308	263			
v/s Ratio Prot		0.28			0.47							
v/s Ratio Perm	c0.77			0.02				0.95	0.01			
v/c Ratio	1.12	0.40		0.02	0.69			5.71	0.04			
Uniform Delay, d1	9.4	4.0		3.0	5.6			25.0	21.0			
Progression Factor	1.00	1.00		0.79	0.71			1.00	1.00			
Incremental Delay, d2	87.8	1.0		0.1	3.1			2125.6	0.3			
Delay (s)	97.1	5.0		2.4	7.0			2150.6	21.2			
Level of Service	F	A		A	A			F	C			
Approach Delay (s)		42.8			6.9			2112.5			0.0	
Approach LOS		D			A			F			A	

Intersection Summary			
HCM 2000 Control Delay	1087.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.01		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.7
Intersection Capacity Utilization	123.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	430	30	0	280	0	0	0	0	100	630	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5					4.9	4.9	4.9
Lane Util. Factor		1.00			1.00					1.00	0.95	1.00
Frt		0.99			1.00					1.00	1.00	0.85
Flt Protected		1.00			1.00					0.95	1.00	1.00
Satd. Flow (prot)		1847			1863					1770	3539	1583
Flt Permitted		1.00			1.00					0.95	1.00	1.00
Satd. Flow (perm)		1847			1863					1770	3539	1583
Peak-hour factor, PHF	0.87	0.87	0.87	0.85	0.85	0.85	0.92	0.92	0.92	0.86	0.86	0.86
Adj. Flow (vph)	0	494	34	0	329	0	0	0	0	116	733	105
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	0	0	0	64
Lane Group Flow (vph)	0	524	0	0	329	0	0	0	0	116	733	41
Turn Type		NA			NA					Perm	NA	Perm
Protected Phases		4			4						2	
Permitted Phases										2		2
Actuated Green, G (s)		27.0			27.0					23.0	23.0	23.0
Effective Green, g (s)		27.0			27.0					23.0	23.0	23.0
Actuated g/C Ratio		0.45			0.45					0.39	0.39	0.39
Clearance Time (s)		4.5			4.5					4.9	4.9	4.9
Lane Grp Cap (vph)		839			846					685	1370	612
v/s Ratio Prot		c0.28			0.18						c0.21	
v/s Ratio Perm										0.07		0.03
v/c Ratio		0.62			0.39					0.17	0.54	0.07
Uniform Delay, d1		12.3			10.7					11.9	14.1	11.4
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		3.5			1.3					0.5	1.5	0.2
Delay (s)		15.8			12.1					12.5	15.6	11.7
Level of Service		B			B					B	B	B
Approach Delay (s)		15.8			12.1			0.0			14.8	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	9.4
Intersection Capacity Utilization	51.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

MOVEMENT SUMMARY

Site: 25_Divisidero_Abby_PM

Divisadero Street/Abby Street/P Street
Existing Plus Project Condtions
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South East: P Street											
3X	L	228	2.0	1.238	133.7	LOS F	71.5	1815.2	1.00	3.91	7.5
18X	R	620	2.0	1.238	127.7	LOS F	71.5	1815.2	1.00	3.91	7.6
Approach		848	2.0	1.238	129.3	LOS F	71.5	1815.2	1.00	3.91	7.6
East: Divisidero St											
1	L	87	2.0	1.333	190.8	LOS F	55.9	1419.8	1.00	2.92	5.9
6	T	196	2.0	1.333	185.4	LOS F	55.9	1419.8	1.00	2.92	5.8
16	R	228	2.0	1.333	187.8	LOS F	55.9	1419.8	1.00	2.92	6.0
Approach		511	2.0	1.333	187.4	LOS F	55.9	1419.8	1.00	2.92	5.9
West: Divisidero St											
5	L	261	2.0	0.544	12.9	LOS B	4.7	118.4	0.54	0.75	27.8
2	T	272	2.0	0.544	4.4	LOS A	4.7	118.4	0.54	0.46	29.2
12	R	65	2.0	0.544	4.1	LOS A	4.7	118.4	0.54	0.46	28.9
Approach		598	2.0	0.544	8.1	LOS A	4.7	118.4	0.54	0.59	28.5
All Vehicles		1957	2.0	1.333	107.5	LOS F	71.5	1815.2	0.86	2.63	9.0

Level of Service (LOS) Method: Delay (HCM 2000).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model used.

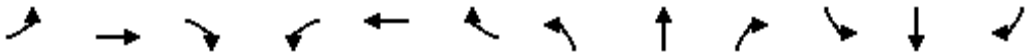
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Movement	WBL	WBT	SBL	SBR	SBR2	SET	SER	NWL	NWT
Lane Configurations									
Volume (vph)	10	120	140	470	10	10	10	120	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	4.9	4.9		4.6			4.0
Lane Util. Factor	1.00	1.00	1.00	0.88		1.00			1.00
Frt	1.00	1.00	1.00	0.85		0.93			1.00
Flt Protected	0.95	1.00	0.95	1.00		1.00			0.96
Satd. Flow (prot)	1770	1863	1770	2787		1737			1781
Flt Permitted	0.95	1.00	0.95	1.00		1.00			0.38
Satd. Flow (perm)	1770	1863	1770	2787		1737			709
Peak-hour factor, PHF	0.61	0.61	0.85	0.85	0.85	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	197	165	553	12	11	11	130	11
RTOR Reduction (vph)	0	0	0	108	0	9	0	0	0
Lane Group Flow (vph)	16	197	165	457	0	13	0	0	141
Turn Type	Perm	NA	Prot	Perm		NA		Perm	NA
Protected Phases		4!	2			4!			1
Permitted Phases	4			2				1	
Actuated Green, G (s)	10.4	10.4	14.6	14.6		10.4			10.1
Effective Green, g (s)	10.4	10.4	14.6	14.6		10.4			10.1
Actuated g/C Ratio	0.21	0.21	0.30	0.30		0.21			0.21
Clearance Time (s)	4.6	4.6	4.9	4.9		4.6			4.0
Vehicle Extension (s)	4.0	4.0	4.0	4.0		4.0			2.0
Lane Grp Cap (vph)	378	398	531	837		371			147
v/s Ratio Prot		c0.11	0.09			0.01			
v/s Ratio Perm	0.01			c0.16					c0.20
v/c Ratio	0.04	0.49	0.31	0.55		0.04			0.96
Uniform Delay, d1	15.1	16.8	13.1	14.2		15.1			19.0
Progression Factor	1.00	1.00	1.00	1.00		1.00			1.00
Incremental Delay, d2	0.1	1.3	0.5	0.9		0.1			60.8
Delay (s)	15.2	18.1	13.6	15.1		15.2			79.8
Level of Service	B	B	B	B		B			E
Approach Delay (s)		17.9	14.8			15.2			79.8
Approach LOS		B	B			B			E

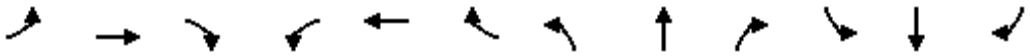
Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	48.6	Sum of lost time (s)	16.5
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	40	660	100	70	410	0	0	110	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.2			4.2			4.2	
Lane Util. Factor					0.95			1.00			1.00	
Frt					0.98			1.00			0.96	
Flt Protected					1.00			0.99			1.00	
Satd. Flow (prot)					3436			1886			1736	
Flt Permitted					1.00			0.92			1.00	
Satd. Flow (perm)					3436			1744			1736	
Peak-hour factor, PHF	0.92	0.92	0.92	0.74	0.74	0.74	0.92	0.92	0.92	0.65	0.65	0.65
Adj. Flow (vph)	0	0	0	54	892	135	76	446	0	0	169	62
RTOR Reduction (vph)	0	0	0	0	18	0	0	0	0	0	22	0
Lane Group Flow (vph)	0	0	0	0	1063	0	0	522	0	0	209	0
Heavy Vehicles (%)	0%	0%	0%	11%	2%	5%	0%	0%	0%	0%	6%	4%
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4			2					
Actuated Green, G (s)					30.8			20.8			20.8	
Effective Green, g (s)					30.8			20.8			20.8	
Actuated g/C Ratio					0.51			0.35			0.35	
Clearance Time (s)					4.2			4.2			4.2	
Lane Grp Cap (vph)					1763			604			601	
v/s Ratio Prot											0.12	
v/s Ratio Perm					0.31			c0.30				
v/c Ratio					0.60			0.86			0.35	
Uniform Delay, d1					10.3			18.3			14.6	
Progression Factor					1.00			0.91			1.00	
Incremental Delay, d2					1.5			13.2			1.6	
Delay (s)					11.8			29.9			16.1	
Level of Service					B			C			B	
Approach Delay (s)		0.0			11.8			29.9			16.1	
Approach LOS		A			B			C			B	

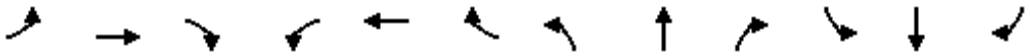
Intersection Summary			
HCM 2000 Control Delay	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	40	740	100	170	520	0	0	170	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.2	4.2	4.2	4.2			4.2	
Lane Util. Factor					0.95	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.98	
Flt Protected					1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					3530	1583	1770	1863			1825	
Flt Permitted					1.00	1.00	0.62	1.00			1.00	
Satd. Flow (perm)					3530	1583	1158	1863			1825	
Peak-hour factor, PHF	0.92	0.92	0.92	0.80	0.80	0.80	0.81	0.81	0.81	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	50	925	125	210	642	0	0	185	33
RTOR Reduction (vph)	0	0	0	0	0	75	0	0	0	0	11	0
Lane Group Flow (vph)	0	0	0	0	975	50	210	642	0	0	207	0
Turn Type				Perm	NA	Perm	Perm	NA			NA	
Protected Phases					4			6			2	
Permitted Phases				4		4	6					
Actuated Green, G (s)					22.0	22.0	28.0	28.0			28.0	
Effective Green, g (s)					22.0	22.0	28.0	28.0			28.0	
Actuated g/C Ratio					0.38	0.38	0.48	0.48			0.48	
Clearance Time (s)					4.2	4.2	4.2	4.2			4.2	
Lane Grp Cap (vph)					1329	596	555	893			875	
v/s Ratio Prot								c0.34			0.11	
v/s Ratio Perm					0.28	0.03	0.18					
v/c Ratio					0.73	0.08	0.38	0.72			0.24	
Uniform Delay, d1					15.7	11.7	9.7	12.1			8.9	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					3.6	0.3	2.0	5.0			0.6	
Delay (s)					19.3	12.0	11.6	17.0			9.6	
Level of Service					B	B	B	B			A	
Approach Delay (s)		0.0			18.5			15.7			9.6	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	58.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	94.2%	ICU Level of Service	F
Analysis Period (min)	15		

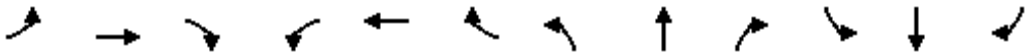
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	300	670	40	410	430	0	0	110	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.2	4.2	4.2		4.2			4.2	
Lane Util. Factor				1.00	0.95	1.00		1.00			1.00	
Frt				1.00	1.00	0.85		1.00			0.91	
Flt Protected				0.95	1.00	1.00		0.98			1.00	
Satd. Flow (prot)				1770	3539	1583		1818			1686	
Flt Permitted				0.95	1.00	1.00		0.58			1.00	
Satd. Flow (perm)				1770	3539	1583		1089			1686	
Peak-hour factor, PHF	0.92	0.92	0.92	0.78	0.78	0.78	0.69	0.69	0.69	0.91	0.91	0.91
Adj. Flow (vph)	0	0	0	385	859	51	594	623	0	0	121	286
RTOR Reduction (vph)	0	0	0	0	0	27	0	0	0	0	9	0
Lane Group Flow (vph)	0	0	0	385	859	24	0	1217	0	0	398	0
Turn Type				Perm	NA	Perm	Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4		4	2					
Actuated Green, G (s)				17.8	17.8	17.8		33.8			33.8	
Effective Green, g (s)				17.8	17.8	17.8		33.8			33.8	
Actuated g/C Ratio				0.30	0.30	0.30		0.56			0.56	
Clearance Time (s)				4.2	4.2	4.2		4.2			4.2	
Lane Grp Cap (vph)				525	1049	469		613			949	
v/s Ratio Prot					c0.24						0.24	
v/s Ratio Perm				0.22		0.01		c1.12				
v/c Ratio				0.73	0.82	0.05		1.99			0.42	
Uniform Delay, d1				19.0	19.6	15.1		13.1			7.5	
Progression Factor				0.31	0.30	0.05		1.84			1.00	
Incremental Delay, d2				4.7	3.8	0.1		443.9			1.4	
Delay (s)				10.5	9.8	0.9		468.0			8.9	
Level of Service				B	A	A		F			A	
Approach Delay (s)		0.0			9.6			468.0			8.9	
Approach LOS		A			A			F			A	

Intersection Summary			
HCM 2000 Control Delay	200.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.58		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	103.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

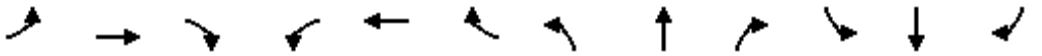


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	60	1390	90	320	170	0	0	160	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.4	5.4		5.4			5.4	
Lane Util. Factor					0.91	1.00		0.95			0.95	
Frt					1.00	0.85		1.00			0.90	
Flt Protected					1.00	1.00		0.97			1.00	
Satd. Flow (prot)					5075	1583		3427			3178	
Flt Permitted					1.00	1.00		0.56			1.00	
Satd. Flow (perm)					5075	1583		1995			3178	
Peak-hour factor, PHF	0.92	0.92	0.92	0.74	0.74	0.74	0.85	0.85	0.85	0.78	0.78	0.78
Adj. Flow (vph)	0	0	0	81	1878	122	376	200	0	0	205	436
RTOR Reduction (vph)	0	0	0	0	0	51	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1959	71	0	576	0	0	641	0
Turn Type				Perm	NA	Perm	Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4		4	2					
Actuated Green, G (s)					17.4	17.4		31.8			31.8	
Effective Green, g (s)					17.4	17.4		31.8			31.8	
Actuated g/C Ratio					0.29	0.29		0.53			0.53	
Clearance Time (s)					5.4	5.4		5.4			5.4	
Lane Grp Cap (vph)					1471	459		1057			1684	
v/s Ratio Prot											0.20	
v/s Ratio Perm					0.39	0.04		c0.29				
v/c Ratio					1.33	0.15		0.97dl			0.38	
Uniform Delay, d1					21.3	15.8		9.3			8.3	
Progression Factor					1.00	1.00		1.00			1.00	
Incremental Delay, d2					154.0	0.7		2.0			0.7	
Delay (s)					175.3	16.5		11.3			9.0	
Level of Service					F	B		B			A	
Approach Delay (s)		0.0			166.0			11.3			9.0	
Approach LOS		A			F			B			A	

Intersection Summary			
HCM 2000 Control Delay	108.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	94.6%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

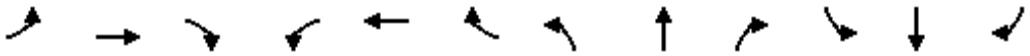
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	840	1210	60	260	0	0	0	0
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				
Lane Util. Factor					0.91	1.00		0.95				
Frt					1.00	0.85		1.00				
Flt Protected					1.00	1.00		0.99				
Satd. Flow (prot)					5085	1599		3570				
Flt Permitted					1.00	1.00		0.99				
Satd. Flow (perm)					5085	1599		3570				
Peak-hour factor, PHF	0.92	0.92	0.92	0.80	0.80	0.80	0.89	0.89	0.89	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	1050	1512	67	292	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	38	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1050	1512	0	321	0	0	0	0
Heavy Vehicles (%)	0%	0%	0%	0%	2%	1%	1%	0%	0%	0%	0%	0%
Turn Type					NA	Free	Perm	NA				
Protected Phases					8			2				
Permitted Phases						Free	2					
Actuated Green, G (s)					15.3	32.5		9.2				
Effective Green, g (s)					15.3	32.5		9.2				
Actuated g/C Ratio					0.47	1.00		0.28				
Clearance Time (s)					4.0			4.0				
Vehicle Extension (s)					3.0			3.0				
Lane Grp Cap (vph)					2393	1599		1010				
v/s Ratio Prot					0.21							
v/s Ratio Perm						c0.95		0.09				
v/c Ratio					0.44	0.95		0.32				
Uniform Delay, d1					5.7	0.0		9.2				
Progression Factor					1.00	1.00		1.00				
Incremental Delay, d2					0.1	12.8		0.2				
Delay (s)					5.9	12.8		9.4				
Level of Service					A	B		A				
Approach Delay (s)		0.0			10.0			9.4			0.0	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	32.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	31.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	400	500	0	0	0	0	0	560	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.95	
Frt					1.00						0.94	
Flt Protected					0.98						1.00	
Satd. Flow (prot)					4958						3286	
Flt Permitted					0.98						1.00	
Satd. Flow (perm)					4958						3286	
Peak-hour factor, PHF	0.92	0.92	0.92	0.86	0.86	0.86	0.92	0.92	0.92	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	465	581	0	0	0	0	0	622	378
RTOR Reduction (vph)	0	0	0	0	142	0	0	0	0	0	67	0
Lane Group Flow (vph)	0	0	0	0	904	0	0	0	0	0	933	0
Heavy Vehicles (%)	0%	0%	0%	4%	1%	0%	0%	0%	0%	0%	4%	3%
Turn Type				Perm	NA						NA	
Protected Phases					8						6	
Permitted Phases				8								
Actuated Green, G (s)					16.6						19.9	
Effective Green, g (s)					16.6						19.9	
Actuated g/C Ratio					0.37						0.45	
Clearance Time (s)					4.0						4.0	
Vehicle Extension (s)					3.0						3.0	
Lane Grp Cap (vph)					1849						1469	
v/s Ratio Prot											c0.28	
v/s Ratio Perm					0.18							
v/c Ratio					0.49						0.63	
Uniform Delay, d1					10.7						9.5	
Progression Factor					1.00						1.00	
Incremental Delay, d2					0.2						0.9	
Delay (s)					10.9						10.4	
Level of Service					B						B	
Approach Delay (s)		0.0			10.9			0.0			10.4	
Approach LOS		A			B			A			B	

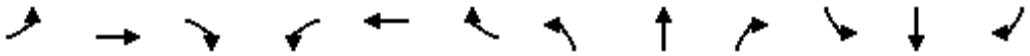
Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	44.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	0	10	170	380	190	50	230	0	0	230	10
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	
Lane Util. Factor		1.00			1.00	1.00		1.00			1.00	
Frt		0.93			1.00	0.85		1.00			0.99	
Flt Protected		0.98			0.98	1.00		0.99			1.00	
Satd. Flow (prot)		1729			1853	1524		1824			1889	
Flt Permitted		0.82			0.89	1.00		0.90			1.00	
Satd. Flow (perm)		1446			1678	1524		1656			1889	
Peak-hour factor, PHF	0.75	0.75	0.75	0.94	0.94	0.94	0.74	0.74	0.74	0.92	0.92	0.92
Adj. Flow (vph)	13	0	13	181	404	202	68	311	0	0	250	11
RTOR Reduction (vph)	0	10	0	0	0	107	0	0	0	0	3	0
Lane Group Flow (vph)	0	16	0	0	585	95	0	379	0	0	258	0
Heavy Vehicles (%)	0%	0%	0%	1%	1%	6%	9%	2%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2					
Actuated Green, G (s)		21.3			21.3	21.3		16.0			16.0	
Effective Green, g (s)		21.3			21.3	21.3		16.0			16.0	
Actuated g/C Ratio		0.47			0.47	0.47		0.35			0.35	
Clearance Time (s)		4.0			4.0	4.0		4.0			4.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)		679			788	716		584			667	
v/s Ratio Prot											0.14	
v/s Ratio Perm		0.01			c0.35	0.06		c0.23				
v/c Ratio		0.02			0.74	0.13		0.65			0.39	
Uniform Delay, d1		6.4			9.8	6.8		12.3			11.0	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		0.0			3.8	0.1		2.5			0.4	
Delay (s)		6.4			13.6	6.9		14.8			11.4	
Level of Service		A			B	A		B			B	
Approach Delay (s)		6.4			11.8			14.8			11.4	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	45.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		

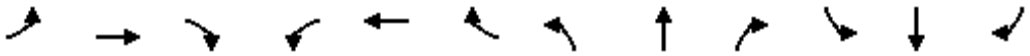
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	140	10	0	0	0	10	10	10	110	140	20
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.92	0.92	0.92	0.75	0.75	0.75	0.89	0.89	0.89
Hourly flow rate (vph)	11	157	11	0	0	0	13	13	13	124	157	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	462	469	169	541	474	20	180			27		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	462	469	169	541	474	20	180			27		
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 %	98	65	99	100	100	100	99			92		
cM capacity (veh/h)	479	452	881	307	449	1064	1408			1574		

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	180	40	124	180
Volume Left	11	13	124	0
Volume Right	11	13	0	22
cSH	468	1408	1574	1700
Volume to Capacity	0.38	0.01	0.08	0.11
Queue Length 95th (ft)	45	1	6	0
Control Delay (s)	17.4	2.6	7.5	0.0
Lane LOS	C	A	A	
Approach Delay (s)	17.4	2.6	3.0	
Approach LOS	C			

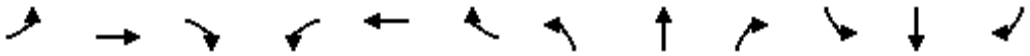
Intersection Summary				
Average Delay	8.0			
Intersection Capacity Utilization	28.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	580	50	0	0	0	0	0	0	550	410	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.91									0.95	
Frt		0.99									1.00	
Flt Protected		1.00									0.97	
Satd. Flow (prot)		5062									3412	
Flt Permitted		1.00									0.97	
Satd. Flow (perm)		5062									3412	
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.80	0.80	0.80
Adj. Flow (vph)	0	682	59	0	0	0	0	0	0	688	512	0
RTOR Reduction (vph)	0	24	0	0	0	0	0	0	0	0	44	0
Lane Group Flow (vph)	0	717	0	0	0	0	0	0	0	0	1156	0
Heavy Vehicles (%)	0%	1%	4%	0%	0%	0%	0%	0%	0%	2%	4%	0%
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		12.1									19.1	
Effective Green, g (s)		12.1									19.1	
Actuated g/C Ratio		0.31									0.49	
Clearance Time (s)		4.0									4.0	
Vehicle Extension (s)		3.0									3.0	
Lane Grp Cap (vph)		1562									1662	
v/s Ratio Prot		c0.14										
v/s Ratio Perm											0.34	
v/c Ratio		0.46									0.70	
Uniform Delay, d1		10.9									7.8	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.2									1.3	
Delay (s)		11.1									9.1	
Level of Service		B									A	
Approach Delay (s)		11.1			0.0			0.0			9.1	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	39.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.5%	ICU Level of Service	A
Analysis Period (min)	15		

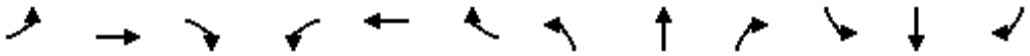
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	270	860	0	0	0	0	0	50	320	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.91						0.95				
Frt		1.00						0.87				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5025						2640				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5025						2640				
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.83	0.83	0.83	0.92	0.92	0.92
Adj. Flow (vph)	318	1012	0	0	0	0	0	60	386	0	0	0
RTOR Reduction (vph)	0	132	0	0	0	0	0	24	0	0	0	0
Lane Group Flow (vph)	0	1198	0	0	0	0	0	422	0	0	0	0
Heavy Vehicles (%)	2%	2%	0%	0%	0%	0%	0%	6%	21%	0%	0%	0%
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		14.9						10.8				
Effective Green, g (s)		14.9						10.8				
Actuated g/C Ratio		0.44						0.32				
Clearance Time (s)		4.0						4.0				
Vehicle Extension (s)		3.0						3.0				
Lane Grp Cap (vph)		2221						846				
v/s Ratio Prot								c0.16				
v/s Ratio Perm		0.24										
v/c Ratio		0.54						0.50				
Uniform Delay, d1		6.9						9.3				
Progression Factor		1.00						1.00				
Incremental Delay, d2		0.3						0.5				
Delay (s)		7.1						9.7				
Level of Service		A						A				
Approach Delay (s)		7.1			0.0			9.7			0.0	
Approach LOS		A			A			A			A	

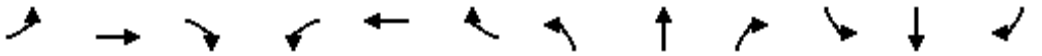
Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	33.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	160	880	140	0	0	0	0	320	30	50	180	0
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	
Lane Util. Factor		0.91						0.95			0.95	
Frt		0.98						0.99			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		4961						3494			3501	
Flt Permitted		0.99						1.00			0.81	
Satd. Flow (perm)		4961						3494			2875	
Peak-hour factor, PHF	0.89	0.89	0.89	0.92	0.92	0.92	0.77	0.77	0.77	0.85	0.85	0.85
Adj. Flow (vph)	180	989	157	0	0	0	0	416	39	59	212	0
RTOR Reduction (vph)	0	29	0	0	0	0	0	13	0	0	0	0
Lane Group Flow (vph)	0	1297	0	0	0	0	0	442	0	0	271	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						8			4	
Permitted Phases	2									4		
Actuated Green, G (s)		25.0						20.0			20.0	
Effective Green, g (s)		25.0						20.0			20.0	
Actuated g/C Ratio		0.47						0.38			0.38	
Clearance Time (s)		4.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		2340						1318			1084	
v/s Ratio Prot								c0.13				
v/s Ratio Perm		0.26									0.09	
v/c Ratio		0.55						0.34			0.25	
Uniform Delay, d1		10.0						11.8			11.3	
Progression Factor		1.00						1.00			1.00	
Incremental Delay, d2		0.3						0.2			0.1	
Delay (s)		10.3						11.9			11.5	
Level of Service		B						B			B	
Approach Delay (s)		10.3			0.0			11.9			11.5	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	53.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

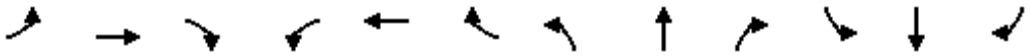


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	210	530	70	0	0	0	0	540	180	260	140	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2	4.2					4.2	4.2	4.6	4.6	
Lane Util. Factor	1.00	0.95	1.00					1.00	1.00	0.95	0.95	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	0.98	
Satd. Flow (prot)	1770	3539	1583					1863	1583	1681	1730	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.29	0.43	
Satd. Flow (perm)	1770	3539	1583					1863	1583	514	762	
Peak-hour factor, PHF	0.95	0.95	0.95	0.92	0.92	0.92	0.52	0.52	0.52	0.85	0.85	0.85
Adj. Flow (vph)	221	558	74	0	0	0	0	1038	346	306	165	0
RTOR Reduction (vph)	0	0	50	0	0	0	0	0	100	0	0	0
Lane Group Flow (vph)	221	558	24	0	0	0	0	1038	246	165	306	0
Turn Type	Perm	NA	Perm					NA	Perm	Perm	NA	
Protected Phases		8						1			2	
Permitted Phases	8		8						1	2		
Actuated Green, G (s)	19.4	19.4	19.4					13.8	13.8	13.8	13.8	
Effective Green, g (s)	19.4	19.4	19.4					13.8	13.8	13.8	13.8	
Actuated g/C Ratio	0.32	0.32	0.32					0.23	0.23	0.23	0.23	
Clearance Time (s)	4.2	4.2	4.2					4.2	4.2	4.6	4.6	
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0	3.8	3.8	
Lane Grp Cap (vph)	572	1144	511					428	364	118	175	
v/s Ratio Prot		c0.16						c0.56				
v/s Ratio Perm	0.12		0.02						0.16	0.32	c0.40	
v/c Ratio	0.39	0.49	0.05					2.43	0.68	1.40	1.75	
Uniform Delay, d1	15.7	16.3	13.9					23.1	21.1	23.1	23.1	
Progression Factor	1.00	1.00	1.00					1.00	1.00	1.50	1.49	
Incremental Delay, d2	2.0	1.5	0.2					648.4	3.9	212.9	353.9	
Delay (s)	17.7	17.8	14.1					671.5	24.9	247.5	388.4	
Level of Service	B	B	B					F	C	F	F	
Approach Delay (s)		17.4			0.0			509.9			339.0	
Approach LOS		B			A			F			F	

Intersection Summary			
HCM 2000 Control Delay	325.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.43		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

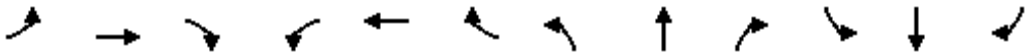
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	750	140	0	0	0	0	610	30	80	120	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2						4.2		4.2	4.2	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		0.98						0.99		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		3449						1851		1770	1863	
Flt Permitted		1.00						1.00		0.14	1.00	
Satd. Flow (perm)		3449						1851		263	1863	
Peak-hour factor, PHF	0.76	0.76	0.76	0.92	0.92	0.92	0.86	0.86	0.86	0.87	0.87	0.87
Adj. Flow (vph)	92	987	184	0	0	0	0	709	35	92	138	0
RTOR Reduction (vph)	0	19	0	0	0	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	1244	0	0	0	0	0	741	0	92	138	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		8						6			2	
Permitted Phases	8									2		
Actuated Green, G (s)		25.9						31.6		31.6	31.6	
Effective Green, g (s)		25.9						31.6		31.6	31.6	
Actuated g/C Ratio		0.39						0.48		0.48	0.48	
Clearance Time (s)		4.2						4.2		4.2	4.2	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		1355						887		126	893	
v/s Ratio Prot								c0.40			0.07	
v/s Ratio Perm		0.36								0.35		
v/c Ratio		0.92						0.84		0.73	0.15	
Uniform Delay, d1		19.0						14.9		13.7	9.6	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		10.0						6.9		19.4	0.1	
Delay (s)		29.0						21.8		33.1	9.7	
Level of Service		C						C		C	A	
Approach Delay (s)		29.0			0.0			21.8			19.1	
Approach LOS		C			A			C			B	

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)	65.9	Sum of lost time (s)	8.4
Intersection Capacity Utilization	94.2%	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)	160	520	80	0	0	0	0	320	20	30	150	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2						4.2			4.2	
Lane Util. Factor		0.95						1.00			1.00	
Frt		0.98						0.99			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		3509						1885			1795	
Flt Permitted		0.99						1.00			0.90	
Satd. Flow (perm)		3509						1885			1629	
Peak-hour factor, PHF	0.80	0.80	0.80	0.92	0.92	0.92	0.92	0.92	0.92	0.75	0.75	0.75
Adj. Flow (vph)	200	650	100	0	0	0	0	348	22	40	200	0
RTOR Reduction (vph)	0	15	0	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	935	0	0	0	0	0	366	0	0	240	0
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	6%	0%
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		8						2			2	
Permitted Phases	8									2		
Actuated Green, G (s)		30.8						20.8			20.8	
Effective Green, g (s)		30.8						20.8			20.8	
Actuated g/C Ratio		0.51						0.35			0.35	
Clearance Time (s)		4.2						4.2			4.2	
Lane Grp Cap (vph)		1801						653			564	
v/s Ratio Prot								c0.19				
v/s Ratio Perm		0.27									0.15	
v/c Ratio		0.52						0.56			0.43	
Uniform Delay, d1		9.7						15.9			15.0	
Progression Factor		1.00						1.00			1.39	
Incremental Delay, d2		1.1						3.5			2.2	
Delay (s)		10.8						19.4			23.1	
Level of Service		B						B			C	
Approach Delay (s)		10.8			0.0			19.4			23.1	
Approach LOS		B			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	390	210	120	10	0	20	0	350	30	10	50	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.0			4.2			4.2	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.95			0.91			0.99			1.00	
Flt Protected	0.95	1.00			0.98			1.00			0.99	
Satd. Flow (prot)	1770	1796			1702			1854			1884	
Flt Permitted	0.74	1.00			0.89			1.00			0.92	
Satd. Flow (perm)	1372	1796			1541			1854			1756	
Peak-hour factor, PHF	0.84	0.84	0.84	0.94	0.94	0.94	0.76	0.76	0.76	0.92	0.92	0.92
Adj. Flow (vph)	464	250	143	11	0	21	0	461	39	11	54	0
RTOR Reduction (vph)	0	35	0	0	13	0	0	5	0	0	0	0
Lane Group Flow (vph)	464	358	0	0	19	0	0	495	0	0	65	0
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%	0%	1%	6%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA			NA		Perm	NA	
Protected Phases		2			6			4			4	
Permitted Phases	2			6						4		
Actuated Green, G (s)	25.0	25.0			25.2			25.0			25.0	
Effective Green, g (s)	25.0	25.0			25.2			25.0			25.0	
Actuated g/C Ratio	0.43	0.43			0.43			0.43			0.43	
Clearance Time (s)	4.2	4.2			4.0			4.2			4.2	
Lane Grp Cap (vph)	587	768			664			793			751	
v/s Ratio Prot		0.20						c0.27				
v/s Ratio Perm	c0.34				0.01						0.04	
v/c Ratio	0.79	0.47			0.03			0.62			0.09	
Uniform Delay, d1	14.4	11.9			9.6			13.0			9.9	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	10.4	2.0			0.1			3.7			0.2	
Delay (s)	24.9	14.0			9.6			16.7			10.1	
Level of Service	C	B			A			B			B	
Approach Delay (s)		19.9			9.6			16.7			10.1	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	58.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	56.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

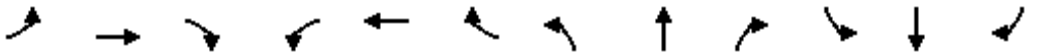
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	220	450	20	100	490	180	30	110	60	120	90	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.1	4.2		4.1	4.2	4.2	4.2	4.2		4.2	4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95	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	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1787	3487		1752	3471	1509	1805	1776		1805	1900	1615
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.70	1.00		0.46	1.00	1.00
Satd. Flow (perm)	1787	3487		1752	3471	1509	1327	1776		866	1900	1615
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.79	0.79	0.79	1.00	1.00	1.00
Adj. Flow (vph)	250	511	23	114	557	205	38	139	76	120	90	150
RTOR Reduction (vph)	0	3	0	0	0	106	0	28	0	0	0	120
Lane Group Flow (vph)	250	531	0	114	557	99	38	187	0	120	90	30
Heavy Vehicles (%)	1%	3%	0%	3%	4%	7%	0%	2%	0%	0%	0%	0%
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	3	8		7	4			6			2	
Permitted Phases						4	6			2		2
Actuated Green, G (s)	18.6	40.2		8.2	29.8	29.8	15.1	15.1		15.1	15.1	15.1
Effective Green, g (s)	18.6	40.2		8.2	29.8	29.8	15.1	15.1		15.1	15.1	15.1
Actuated g/C Ratio	0.24	0.53		0.11	0.39	0.39	0.20	0.20		0.20	0.20	0.20
Clearance Time (s)	4.1	4.2		4.1	4.2	4.2	4.2	4.2		4.2	4.2	4.2
Vehicle Extension (s)	2.0	6.0		2.0	6.0	6.0	4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	437	1844		189	1360	591	263	352		172	377	320
v/s Ratio Prot	c0.14	0.15		0.07	c0.16			0.11			0.05	
v/s Ratio Perm						0.07	0.03			c0.14		0.02
v/c Ratio	0.57	0.29		0.60	0.41	0.17	0.14	0.53		0.70	0.24	0.09
Uniform Delay, d1	25.2	9.9		32.3	16.7	15.0	25.1	27.3		28.3	25.6	24.9
Progression Factor	1.00	1.00		0.88	1.36	2.78	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	5.4	0.4		3.2	0.8	0.5	0.3	2.0		12.5	0.4	0.2
Delay (s)	30.6	10.3		31.8	23.6	42.4	25.5	29.2		40.8	26.1	25.0
Level of Service	C	B		C	C	D	C	C		D	C	C
Approach Delay (s)		16.8			29.1			28.7			30.6	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	25.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

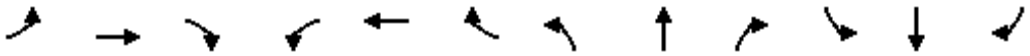
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	550	120	110	690	110	170	100	130	150	110	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.98		1.00	0.92		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3444		1770	3466		1770	1705		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	3444		1770	3466		1770	1705		1770	1863	1583
Peak-hour factor, PHF	0.82	0.82	0.82	0.94	0.94	0.94	0.87	0.87	0.87	0.72	0.72	0.72
Adj. Flow (vph)	24	671	146	117	734	117	195	115	149	208	153	42
RTOR Reduction (vph)	0	19	0	0	11	0	0	60	0	0	0	34
Lane Group Flow (vph)	24	798	0	117	840	0	195	204	0	208	153	8
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	2.7	24.5		8.3	30.1		12.8	13.5		13.3	14.0	14.0
Effective Green, g (s)	2.7	24.5		8.3	30.1		12.8	13.5		13.3	14.0	14.0
Actuated g/C Ratio	0.04	0.32		0.11	0.40		0.17	0.18		0.18	0.18	0.18
Clearance Time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	4.2
Vehicle Extension (s)	2.0	6.0		2.0	6.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	62	1110		193	1372		298	302		309	343	291
v/s Ratio Prot	0.01	c0.23		c0.07	0.24		0.11	c0.12		c0.12	0.08	
v/s Ratio Perm												0.00
v/c Ratio	0.39	0.72		0.61	0.61		0.65	0.68		0.67	0.45	0.03
Uniform Delay, d1	35.8	22.7		32.3	18.3		29.5	29.2		29.3	27.6	25.4
Progression Factor	1.38	0.90		1.06	1.05		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.4	3.9		3.4	1.9		3.9	4.6		4.5	0.3	0.0
Delay (s)	50.8	24.3		37.7	21.1		33.4	33.8		33.8	27.9	25.4
Level of Service	D	C		D	C		C	C		C	C	C
Approach Delay (s)		25.0			23.1			33.7			30.7	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	16.4
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	700	120	470	590	0	0	0	0	360	380	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		5.2	5.2					4.7	4.7	4.7
Lane Util. Factor		0.95		1.00	0.95					1.00	1.00	1.00
Frt		0.98		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (prot)		3461		1770	3539					1770	1863	1583
Flt Permitted		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (perm)		3461		1770	3539					1770	1863	1583
Peak-hour factor, PHF	0.91	0.91	0.91	0.94	0.94	0.94	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	0	769	132	500	628	0	0	0	0	404	427	360
RTOR Reduction (vph)	0	18	0	0	0	0	0	0	0	0	0	187
Lane Group Flow (vph)	0	883	0	500	628	0	0	0	0	404	427	173
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Actuated Green, G (s)		18.8		19.8	43.8					22.3	22.3	22.3
Effective Green, g (s)		18.8		19.8	43.8					22.3	22.3	22.3
Actuated g/C Ratio		0.25		0.26	0.58					0.29	0.29	0.29
Clearance Time (s)		5.2		5.2	5.2					4.7	4.7	4.7
Vehicle Extension (s)		0.2		2.0	0.2					6.2	6.2	6.2
Lane Grp Cap (vph)		856		461	2039					519	546	464
v/s Ratio Prot		c0.26		c0.28	0.18						c0.23	
v/s Ratio Perm										0.23		0.11
v/c Ratio		1.03		1.08	0.31					0.78	0.78	0.37
Uniform Delay, d1		28.6		28.1	8.3					24.6	24.6	21.3
Progression Factor		0.81		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		35.4		66.7	0.4					9.2	9.0	1.5
Delay (s)		58.7		94.8	8.7					33.8	33.6	22.8
Level of Service		E		F	A					C	C	C
Approach Delay (s)		58.7			46.8			0.0			30.4	
Approach LOS		E			D			A			C	

Intersection Summary			
HCM 2000 Control Delay	44.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	90.2%	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)	380	680	0	0	890	660	170	270	350	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.7	5.2			5.2	5.2		5.4	5.4			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.91	0.91			
Frt	1.00	1.00			1.00	0.85		0.97	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.98	1.00			
Satd. Flow (prot)	1770	3539			3539	1583		3242	1441			
Flt Permitted	0.95	1.00			1.00	1.00		0.98	1.00			
Satd. Flow (perm)	1770	3539			3539	1583		3242	1441			
Peak-hour factor, PHF	0.82	0.82	0.82	0.86	0.86	0.86	0.86	0.86	0.86	0.92	0.92	0.92
Adj. Flow (vph)	463	829	0	0	1035	767	198	314	407	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	129	0	21	120	0	0	0
Lane Group Flow (vph)	463	829	0	0	1035	638	0	613	165	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	20.3	63.0			39.0	39.0		26.4	26.4			
Effective Green, g (s)	20.3	63.0			39.0	39.0		26.4	26.4			
Actuated g/C Ratio	0.20	0.63			0.39	0.39		0.26	0.26			
Clearance Time (s)	3.7	5.2			5.2	5.2		5.4	5.4			
Vehicle Extension (s)	2.0	0.2			0.2	0.2		5.0	5.0			
Lane Grp Cap (vph)	359	2229			1380	617		855	380			
v/s Ratio Prot	c0.26	0.23			0.29							
v/s Ratio Perm						c0.40		0.19	0.11			
v/c Ratio	1.29	0.37			0.75	1.03		0.72	0.43			
Uniform Delay, d1	39.9	8.9			26.3	30.5		33.4	30.6			
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00			
Incremental Delay, d2	149.8	0.5			3.8	45.4		3.6	1.7			
Delay (s)	189.6	9.4			30.1	75.9		37.0	32.3			
Level of Service	F	A			C	E		D	C			
Approach Delay (s)		74.0			49.6			35.5			0.0	
Approach LOS		E			D			D			A	

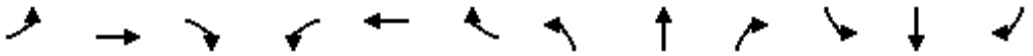
Intersection Summary			
HCM 2000 Control Delay	54.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.3
Intersection Capacity Utilization	90.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	160	740	130	30	1080	30	310	50	20	30	70	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frt	1.00	0.98		1.00	1.00			0.99			0.91	
Flt Protected	0.95	1.00		0.95	1.00			0.96			0.99	
Satd. Flow (prot)	1752	3384		1805	3505			3404			3171	
Flt Permitted	0.13	1.00		0.24	1.00			0.64			0.87	
Satd. Flow (perm)	243	3384		449	3505			2255			2763	
Peak-hour factor, PHF	0.89	0.89	0.89	0.85	0.85	0.85	0.87	0.87	0.87	0.84	0.84	0.84
Adj. Flow (vph)	180	831	146	35	1271	35	356	57	23	36	83	190
RTOR Reduction (vph)	0	15	0	0	2	0	0	7	0	0	10	0
Lane Group Flow (vph)	180	962	0	35	1304	0	0	429	0	0	299	0
Heavy Vehicles (%)	3%	4%	6%	0%	2%	24%	1%	2%	0%	13%	0%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	30.4	30.4		30.4	30.4			17.3			17.3	
Effective Green, g (s)	30.4	30.4		30.4	30.4			17.3			17.3	
Actuated g/C Ratio	0.52	0.52		0.52	0.52			0.30			0.30	
Clearance Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	127	1770		234	1833			671			822	
v/s Ratio Prot		0.28			0.37							
v/s Ratio Perm	c0.74			0.08				c0.19			0.11	
v/c Ratio	1.42	0.54		0.15	0.71			1.11dl			0.36	
Uniform Delay, d1	13.9	9.2		7.2	10.5			17.7			16.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	227.5	0.3		0.3	1.3			2.0			0.3	
Delay (s)	241.4	9.6		7.5	11.8			19.7			16.3	
Level of Service	F	A		A	B			B			B	
Approach Delay (s)		45.6			11.7			19.7			16.3	
Approach LOS		D			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	25.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	58.1	Sum of lost time (s)	10.4
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	510	200	0	1130	160	110	300	160	30	240	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2			5.2	5.2		5.5		5.5	5.5	
Lane Util. Factor		0.95			0.95	1.00		0.95		1.00	0.95	
Frt		0.96			1.00	0.85		0.96		1.00	0.97	
Flt Protected		1.00			1.00	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		3343			3539	1583		3358		1770	3419	
Flt Permitted		1.00			1.00	1.00		0.79		0.34	1.00	
Satd. Flow (perm)		3343			3539	1583		2663		637	3419	
Peak-hour factor, PHF	0.90	0.90	0.90	0.79	0.79	0.79	0.85	0.85	0.85	0.88	0.88	0.88
Adj. Flow (vph)	0	567	222	0	1430	203	129	353	188	34	273	80
RTOR Reduction (vph)	0	48	0	0	0	102	0	62	0	0	2	0
Lane Group Flow (vph)	0	741	0	0	1430	101	0	608	0	34	351	0
Heavy Vehicles (%)	2%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA			NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases						2	4			4		
Actuated Green, G (s)		31.3			31.3	31.3		34.0		34.0	34.0	
Effective Green, g (s)		31.3			31.3	31.3		34.0		34.0	34.0	
Actuated g/C Ratio		0.41			0.41	0.41		0.45		0.45	0.45	
Clearance Time (s)		5.2			5.2	5.2		5.5		5.5	5.5	
Vehicle Extension (s)		5.0			5.0	5.0		2.0		2.0	2.0	
Lane Grp Cap (vph)		1376			1457	651		1191		284	1529	
v/s Ratio Prot		0.22			c0.40						0.10	
v/s Ratio Perm						0.06		c0.23		0.05		
v/c Ratio		0.54			0.98	0.16		0.51		0.12	0.23	
Uniform Delay, d1		16.9			22.1	14.0		15.0		12.3	12.9	
Progression Factor		1.00			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		1.5			19.6	0.5		0.2		0.1	0.0	
Delay (s)		18.4			41.6	14.6		15.2		12.3	13.0	
Level of Service		B			D	B		B		B	B	
Approach Delay (s)		18.4			38.3			15.2			12.9	
Approach LOS		B			D			B			B	

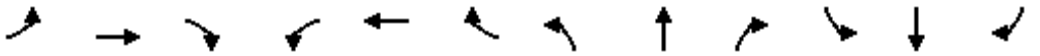
Intersection Summary			
HCM 2000 Control Delay	26.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	76.0	Sum of lost time (s)	10.7
Intersection Capacity Utilization	101.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	130	650	70	160	390	90	140	400	100	110	250	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	0.97		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3487		1770	3468		1770	3433		1770	1772	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3487		1770	3468		1770	3433		1770	1772	
Peak-hour factor, PHF	0.99	0.99	0.99	0.83	0.83	0.83	0.92	0.92	0.92	0.87	0.87	0.87
Adj. Flow (vph)	131	657	71	193	470	108	152	435	109	126	287	138
RTOR Reduction (vph)	0	7	0	0	17	0	0	18	0	0	14	0
Lane Group Flow (vph)	131	721	0	193	561	0	152	526	0	126	411	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	13.6	28.2		16.7	31.3		14.8	37.1		12.8	35.1	
Effective Green, g (s)	13.6	28.2		16.7	31.3		14.8	37.1		12.8	35.1	
Actuated g/C Ratio	0.12	0.25		0.15	0.28		0.13	0.33		0.11	0.31	
Clearance Time (s)	4.0	4.6		4.0	4.6		4.0	4.6		4.0	4.6	
Vehicle Extension (s)	3.0	5.0		3.0	5.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	214	877		263	969		233	1137		202	555	
v/s Ratio Prot	0.07	c0.21		c0.11	c0.16		c0.09	0.15		0.07	c0.23	
v/s Ratio Perm												
v/c Ratio	0.61	0.82		0.73	0.58		0.65	0.46		0.62	0.74	
Uniform Delay, d1	46.7	39.5		45.5	34.7		46.2	29.6		47.3	34.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.1	7.0		10.1	1.3		6.4	1.4		5.9	8.6	
Delay (s)	51.8	46.5		55.7	36.0		52.6	30.9		53.2	43.0	
Level of Service	D	D		E	D		D	C		D	D	
Approach Delay (s)		47.3			40.9			35.7			45.3	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	42.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	112.0	Sum of lost time (s)	17.2
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		

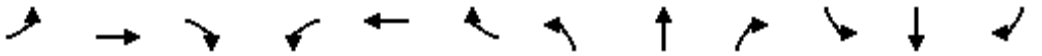
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	600	90	60	440	10	170	240	10	130	170	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2		5.2	5.2		5.2	5.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3470		1770	3562		1770	1851		1770	1809	
Flt Permitted	0.47	1.00		0.30	1.00		0.50	1.00		0.47	1.00	
Satd. Flow (perm)	877	3470		557	3562		926	1851		874	1809	
Peak-hour factor, PHF	0.81	0.81	0.81	0.91	0.91	0.91	0.92	0.92	0.92	0.82	0.82	0.82
Adj. Flow (vph)	99	741	111	66	484	11	185	261	11	159	207	49
RTOR Reduction (vph)	0	12	0	0	2	0	0	3	0	0	18	0
Lane Group Flow (vph)	99	840	0	66	493	0	185	269	0	159	238	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			8			4	
Permitted Phases	2			2			8			4		
Actuated Green, G (s)	38.3	38.3		38.3	38.3		16.7	16.7		16.7	16.7	
Effective Green, g (s)	38.3	38.3		38.3	38.3		16.7	16.7		16.7	16.7	
Actuated g/C Ratio	0.59	0.59		0.59	0.59		0.26	0.26		0.26	0.26	
Clearance Time (s)	5.2	5.2		5.2	5.2		5.2	5.2		5.2	5.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	513	2032		326	2086		236	472		223	461	
v/s Ratio Prot		c0.24			0.14			0.15			0.13	
v/s Ratio Perm	0.11			0.12			c0.20			0.18		
v/c Ratio	0.19	0.41		0.20	0.24		0.78	0.57		0.71	0.52	
Uniform Delay, d1	6.3	7.4		6.4	6.5		22.7	21.2		22.2	20.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.8	0.6		1.4	0.3		15.6	1.6		10.3	1.0	
Delay (s)	7.2	8.0		7.8	6.8		38.2	22.8		32.5	21.9	
Level of Service	A	A		A	A		D	C		C	C	
Approach Delay (s)		7.9			6.9			29.0			25.9	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	14.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	65.4	Sum of lost time (s)	10.4
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	760	50	60	570	70	80	200	90	80	130	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2		5.2	5.2		5.2	5.2	5.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.98		1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1480	3543		1805	3520		1805	1794		1787	1900	1495
Flt Permitted	0.30	1.00		0.23	1.00		0.66	1.00		0.38	1.00	1.00
Satd. Flow (perm)	472	3543		433	3520		1247	1794		707	1900	1495
Peak-hour factor, PHF	0.88	0.88	0.88	0.83	0.83	0.83	0.66	0.66	0.66	0.82	0.82	0.82
Adj. Flow (vph)	34	864	57	72	687	84	121	303	136	98	159	85
RTOR Reduction (vph)	0	7	0	0	13	0	0	25	0	0	0	53
Lane Group Flow (vph)	34	914	0	72	758	0	121	414	0	98	159	32
Heavy Vehicles (%)	22%	1%	0%	0%	1%	0%	0%	1%	1%	1%	0%	8%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	20.8	20.8		20.8	20.8		18.7	18.7		18.7	18.7	18.7
Effective Green, g (s)	20.8	20.8		20.8	20.8		18.7	18.7		18.7	18.7	18.7
Actuated g/C Ratio	0.42	0.42		0.42	0.42		0.37	0.37		0.37	0.37	0.37
Clearance Time (s)	5.2	5.2		5.2	5.2		5.2	5.2		5.2	5.2	5.2
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	196	1476		180	1467		467	672		264	712	560
v/s Ratio Prot		c0.26			0.22			c0.23			0.08	
v/s Ratio Perm	0.07			0.17			0.10			0.14		0.02
v/c Ratio	0.17	0.62		0.40	0.52		0.26	0.62		0.37	0.22	0.06
Uniform Delay, d1	9.1	11.4		10.2	10.8		10.8	12.7		11.3	10.6	10.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.6	0.9		2.0	0.4		0.4	1.9		1.2	0.2	0.1
Delay (s)	9.7	12.3		12.2	11.2		11.2	14.6		12.5	10.9	10.0
Level of Service	A	B		B	B		B	B		B	B	B
Approach Delay (s)		12.2			11.3			13.9			11.1	
Approach LOS		B			B			B			B	

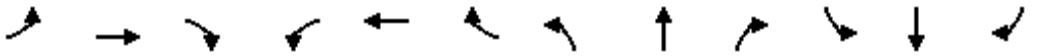
Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	49.9	Sum of lost time (s)	10.4
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	870	20	40	600	80	50	310	100	120	60	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2			5.2			4.0		5.0	5.0	
Lane Util. Factor	1.00	0.95			0.95			0.95		1.00	1.00	
Frt	1.00	1.00			0.98			0.97		1.00	0.98	
Flt Protected	0.95	1.00			1.00			0.99		0.95	1.00	
Satd. Flow (prot)	1770	3561			3471			3405		1770	1822	
Flt Permitted	0.29	1.00			0.84			0.92		0.38	1.00	
Satd. Flow (perm)	544	3561			2909			3139		709	1822	
Peak-hour factor, PHF	0.92	0.92	0.92	0.95	0.95	0.95	0.80	0.80	0.80	0.92	0.92	0.92
Adj. Flow (vph)	54	946	22	42	632	84	62	388	125	130	65	11
RTOR Reduction (vph)	0	3	0	0	16	0	0	36	0	0	6	0
Lane Group Flow (vph)	54	965	0	0	742	0	0	539	0	130	70	0
Heavy Vehicles (%)	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			6	
Permitted Phases	4			4			2			6		
Actuated Green, G (s)	27.7	27.7			27.7			28.3		27.3	27.3	
Effective Green, g (s)	27.7	27.7			27.7			28.3		27.3	27.3	
Actuated g/C Ratio	0.42	0.42			0.42			0.43		0.42	0.42	
Clearance Time (s)	5.2	5.2			5.2			4.0		5.0	5.0	
Vehicle Extension (s)	4.0	4.0			4.0			3.0		4.0	4.0	
Lane Grp Cap (vph)	231	1512			1235			1362		296	762	
v/s Ratio Prot		c0.27									0.04	
v/s Ratio Perm	0.10				0.26			0.17		c0.18		
v/c Ratio	0.23	0.64			0.60			0.40		0.44	0.09	
Uniform Delay, d1	12.0	14.8			14.5			12.6		13.5	11.5	
Progression Factor	1.00	1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2	0.7	1.0			1.0			0.9		1.4	0.1	
Delay (s)	12.7	15.8			15.4			13.5		14.9	11.5	
Level of Service	B	B			B			B		B	B	
Approach Delay (s)		15.6			15.4			13.5			13.7	
Approach LOS		B			B			B			B	

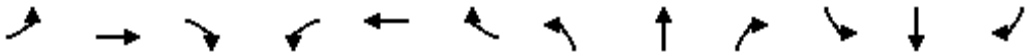
Intersection Summary			
HCM 2000 Control Delay	14.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	65.2	Sum of lost time (s)	10.2
Intersection Capacity Utilization	87.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	120	20	430	30	200	10	390	770	340	290	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6	5.6	5.0	5.6	5.6	5.0	5.6	5.6
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1823		1681	1696	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1823		1681	1696	1583	1770	3539	1583	1770	3539	1583
Peak-hour factor, PHF	0.84	0.84	0.84	0.85	0.85	0.85	0.83	0.83	0.83	0.92	0.92	0.92
Adj. Flow (vph)	12	143	24	506	35	235	12	470	928	370	315	11
RTOR Reduction (vph)	0	4	0	0	0	177	0	0	96	0	0	6
Lane Group Flow (vph)	12	163	0	268	273	58	12	470	832	370	315	5
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	8	8		4	4		1	6	4	5	2	
Permitted Phases						4			6			2
Actuated Green, G (s)	16.3	16.3		30.6	30.6	30.6	2.4	26.8	57.4	27.7	52.1	52.1
Effective Green, g (s)	16.3	16.3		30.6	30.6	30.6	2.4	26.8	57.4	27.7	52.1	52.1
Actuated g/C Ratio	0.13	0.13		0.25	0.25	0.25	0.02	0.22	0.47	0.22	0.42	0.42
Clearance Time (s)	5.6	5.6		5.6	5.6	5.6	5.0	5.6	5.6	5.0	5.6	5.6
Vehicle Extension (s)	3.0	3.0		3.5	3.5	3.5	2.0	4.8	3.5	3.0	4.8	4.8
Lane Grp Cap (vph)	234	241		417	421	393	34	769	809	397	1496	669
v/s Ratio Prot	0.01	c0.09		0.16	0.16		0.01	0.13	c0.26	c0.21	0.09	
v/s Ratio Perm						0.04			0.27			0.00
v/c Ratio	0.05	0.67		0.64	0.65	0.15	0.35	0.61	1.03	0.93	0.21	0.01
Uniform Delay, d1	46.7	50.9		41.4	41.5	36.1	59.6	43.5	32.9	46.8	22.5	20.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	7.3		3.5	3.6	0.2	2.3	2.0	39.3	28.5	0.1	0.0
Delay (s)	46.8	58.2		44.9	45.1	36.3	61.9	45.5	72.2	75.4	22.7	20.6
Level of Service	D	E		D	D	D	E	D	E	E	C	C
Approach Delay (s)		57.4			42.4			63.2			50.6	
Approach LOS		E			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	54.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	123.2	Sum of lost time (s)	21.8
Intersection Capacity Utilization	87.5%	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)	30	250	70	170	310	120	70	380	140	160	390	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.97		1.00	0.96			0.96			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	1802		1770	1785			3393			3449	
Flt Permitted	0.21	1.00		0.41	1.00			0.80			0.64	
Satd. Flow (perm)	392	1802		768	1785			2736			2252	
Peak-hour factor, PHF	0.93	0.93	0.93	0.78	0.78	0.78	0.91	0.91	0.91	0.79	0.79	0.79
Adj. Flow (vph)	32	269	75	218	397	154	77	418	154	203	494	63
RTOR Reduction (vph)	0	17	0	0	24	0	0	52	0	0	12	0
Lane Group Flow (vph)	32	327	0	218	527	0	0	597	0	0	748	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	19.0	19.0		19.0	19.0			30.0			30.0	
Effective Green, g (s)	19.0	19.0		19.0	19.0			30.0			30.0	
Actuated g/C Ratio	0.33	0.33		0.33	0.33			0.52			0.52	
Clearance Time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Lane Grp Cap (vph)	129	596		254	590			1429			1177	
v/s Ratio Prot		0.18			c0.30							
v/s Ratio Perm	0.08			0.28				0.22			c0.33	
v/c Ratio	0.25	0.55		0.86	0.89			0.42			0.64	
Uniform Delay, d1	14.0	15.7		17.9	18.2			8.4			9.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	4.5	3.6		29.4	18.4			0.9			2.6	
Delay (s)	18.5	19.3		47.3	36.7			9.3			12.4	
Level of Service	B	B		D	D			A			B	
Approach Delay (s)		19.2			39.7			9.3			12.4	
Approach LOS		B			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	57.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	103.5%	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)	80	380	90	50	350	200	80	250	50	140	200	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.95		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3437		1770	3346		1770	1816		1770	1863	1583
Flt Permitted	0.37	1.00		0.41	1.00		0.60	1.00		0.41	1.00	1.00
Satd. Flow (perm)	691	3437		773	3346		1117	1816		772	1863	1583
Peak-hour factor, PHF	0.86	0.86	0.86	0.89	0.89	0.89	0.76	0.76	0.76	0.86	0.86	0.86
Adj. Flow (vph)	93	442	105	56	393	225	105	329	66	163	233	198
RTOR Reduction (vph)	0	36	0	0	126	0	0	12	0	0	0	118
Lane Group Flow (vph)	93	511	0	56	492	0	105	383	0	163	233	80
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	25.0	25.0		25.0	25.0		23.0	23.0		23.0	23.0	23.0
Effective Green, g (s)	25.0	25.0		25.0	25.0		23.0	23.0		23.0	23.0	23.0
Actuated g/C Ratio	0.44	0.44		0.44	0.44		0.41	0.41		0.41	0.41	0.41
Clearance Time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	4.5
Lane Grp Cap (vph)	304	1515		340	1475		453	736		313	755	642
v/s Ratio Prot		c0.15			0.15			0.21			0.13	
v/s Ratio Perm	0.13			0.07			0.09			c0.21		0.05
v/c Ratio	0.31	0.34		0.16	0.33		0.23	0.52		0.52	0.31	0.13
Uniform Delay, d1	10.2	10.4		9.6	10.4		11.1	12.7		12.7	11.4	10.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.6	0.6		1.0	0.6		1.2	2.6		6.1	1.1	0.4
Delay (s)	12.8	11.0		10.6	11.0		12.2	15.3		18.8	12.5	11.0
Level of Service	B	B		B	B		B	B		B	B	B
Approach Delay (s)		11.3			11.0			14.7			13.7	
Approach LOS		B			B			B			B	

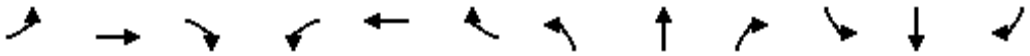
Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	56.7	Sum of lost time (s)	8.7
Intersection Capacity Utilization	94.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	570	30	50	500	170	60	350	50	170	390	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	1.00	
Frt	1.00	0.99		1.00	0.96		1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3513		1770	3430		1770	3473		1770	1820	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3513		1770	3430		1770	3473		1770	1820	
Peak-hour factor, PHF	0.86	0.86	0.86	0.78	0.78	0.78	0.87	0.87	0.87	0.94	0.94	0.94
Adj. Flow (vph)	58	663	35	64	641	218	69	402	57	181	415	74
RTOR Reduction (vph)	0	4	0	0	30	0	0	11	0	0	6	0
Lane Group Flow (vph)	58	694	0	64	829	0	69	448	0	181	483	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	6.0	24.4		6.3	24.7		6.4	24.2		12.3	30.1	
Effective Green, g (s)	6.0	24.4		6.3	24.7		6.4	24.2		12.3	30.1	
Actuated g/C Ratio	0.07	0.29		0.08	0.30		0.08	0.29		0.15	0.36	
Clearance Time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	5.0		2.0	5.0	
Lane Grp Cap (vph)	127	1025		133	1013		135	1005		260	655	
v/s Ratio Prot	0.03	0.20		c0.04	c0.24		0.04	0.13		c0.10	c0.27	
v/s Ratio Perm												
v/c Ratio	0.46	0.68		0.48	0.82		0.51	0.45		0.70	0.74	
Uniform Delay, d1	37.2	26.1		37.1	27.4		37.1	24.2		33.9	23.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.9	2.3		1.0	5.9		1.4	0.7		6.4	5.3	
Delay (s)	38.2	28.5		38.1	33.3		38.5	24.9		40.3	28.6	
Level of Service	D	C		D	C		D	C		D	C	
Approach Delay (s)		29.2			33.6			26.7			31.7	
Approach LOS		C			C			C			C	

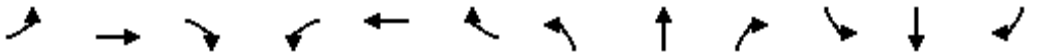
Intersection Summary			
HCM 2000 Control Delay	30.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	83.6	Sum of lost time (s)	16.4
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



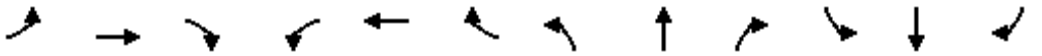
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	740	40	70	480	30	60	100	10	90	270	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.99		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3512		1770	3540		1770	1837		1770	1782	
Flt Permitted	0.44	1.00		0.25	1.00		0.21	1.00		0.68	1.00	
Satd. Flow (perm)	819	3512		459	3540		392	1837		1266	1782	
Peak-hour factor, PHF	0.86	0.86	0.86	0.95	0.95	0.95	0.92	0.92	0.92	0.59	0.59	0.59
Adj. Flow (vph)	116	860	47	74	505	32	65	109	11	153	458	186
RTOR Reduction (vph)	0	7	0	0	8	0	0	6	0	0	27	0
Lane Group Flow (vph)	116	900	0	74	529	0	65	114	0	153	617	0
Heavy Vehicles (%)	2%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	26.0	26.0		26.0	26.0		19.0	19.0		19.0	19.0	
Effective Green, g (s)	26.0	26.0		26.0	26.0		19.0	19.0		19.0	19.0	
Actuated g/C Ratio	0.48	0.48		0.48	0.48		0.35	0.35		0.35	0.35	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Grp Cap (vph)	394	1690		221	1704		137	646		445	627	
v/s Ratio Prot		c0.26			0.15			0.06			c0.35	
v/s Ratio Perm	0.14			0.16			0.17			0.12		
v/c Ratio	0.29	0.53		0.33	0.31		0.47	0.18		0.34	0.98	
Uniform Delay, d1	8.5	9.8		8.7	8.5		13.6	12.1		12.9	17.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.9	1.2		4.0	0.5		11.3	0.6		2.1	32.2	
Delay (s)	10.4	11.0		12.7	9.0		24.9	12.7		15.0	49.5	
Level of Service	B	B		B	A		C	B		B	D	
Approach Delay (s)		10.9			9.5			17.0			42.9	
Approach LOS		B			A			B			D	

Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	54.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	95.1%	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)	60	840	30	30	540	30	10	170	140	110	120	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.2			4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.98	1.00
Satd. Flow (prot)	1805	3591		1805	3548			1772			1829	1455
Flt Permitted	0.36	1.00		0.20	1.00			0.99			0.59	1.00
Satd. Flow (perm)	686	3591		379	3548			1751			1103	1455
Peak-hour factor, PHF	0.86	0.86	0.86	0.87	0.87	0.87	0.83	0.83	0.83	0.70	0.70	0.70
Adj. Flow (vph)	70	977	35	34	621	34	12	205	169	157	171	71
RTOR Reduction (vph)	0	4	0	0	7	0	0	47	0	0	0	45
Lane Group Flow (vph)	70	1008	0	34	648	0	0	339	0	0	328	26
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	7%	1%	0%	3%	0%	11%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	29.0	29.0		29.0	29.0			22.0			22.0	22.0
Effective Green, g (s)	29.0	29.0		29.0	29.0			22.0			22.0	22.0
Actuated g/C Ratio	0.49	0.49		0.49	0.49			0.37			0.37	0.37
Clearance Time (s)	4.2	4.2		4.2	4.2			4.2			4.2	4.2
Lane Grp Cap (vph)	334	1753		185	1732			648			408	538
v/s Ratio Prot		c0.28			0.18							
v/s Ratio Perm	0.10			0.09				0.19			c0.30	0.02
v/c Ratio	0.21	0.57		0.18	0.37			0.52			0.80	0.05
Uniform Delay, d1	8.7	10.8		8.5	9.5			14.6			16.8	12.0
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	1.4	1.4		2.2	0.6			3.0			15.4	0.2
Delay (s)	10.1	12.2		10.7	10.1			17.6			32.2	12.2
Level of Service	B	B		B	B			B			C	B
Approach Delay (s)		12.1			10.2			17.6			28.6	
Approach LOS		B			B			B			C	

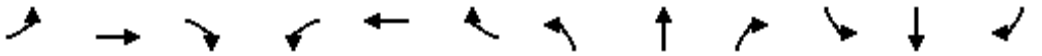
Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	59.4	Sum of lost time (s)	8.4
Intersection Capacity Utilization	97.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	1050	10	10	530	40	40	130	100	70	70	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2	5.2	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95	
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	3604		1770	3539	1583	1770	1863	1583	1770	1778	
Flt Permitted	0.40	1.00		0.14	1.00	1.00	0.69	1.00	1.00	0.66	1.00	
Satd. Flow (perm)	737	3604		261	3539	1583	1279	1863	1583	1225	1778	
Peak-hour factor, PHF	0.77	0.77	0.77	0.80	0.80	0.80	0.83	0.83	0.83	0.92	0.92	0.92
Adj. Flow (vph)	39	1364	13	12	662	50	48	157	120	76	76	33
RTOR Reduction (vph)	0	1	0	0	0	19	0	0	27	0	26	0
Lane Group Flow (vph)	39	1376	0	12	662	31	48	157	93	76	83	0
Heavy Vehicles (%)	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		8			4			6			6	
Permitted Phases	8			4		4	6		6	6		
Actuated Green, G (s)	36.8	36.8		36.8	36.8	36.8	13.1	13.1	13.1	13.1	13.1	
Effective Green, g (s)	36.8	36.8		36.8	36.8	36.8	13.1	13.1	13.1	13.1	13.1	
Actuated g/C Ratio	0.61	0.61		0.61	0.61	0.61	0.22	0.22	0.22	0.22	0.22	
Clearance Time (s)	5.2	5.2		5.2	5.2	5.2	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	451	2206		159	2166	969	278	406	345	267	387	
v/s Ratio Prot		c0.38			0.19			c0.08			0.05	
v/s Ratio Perm	0.05			0.05		0.02	0.04		0.06	0.06		
v/c Ratio	0.09	0.62		0.08	0.31	0.03	0.17	0.39	0.27	0.28	0.21	
Uniform Delay, d1	4.8	7.3		4.7	5.6	4.6	19.1	20.1	19.5	19.6	19.3	
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	0.2	0.8		0.4	0.2	0.0	0.3	0.6	0.4	0.6	0.3	
Delay (s)	4.9	8.1		5.2	5.7	4.6	19.4	20.7	19.9	20.2	19.6	
Level of Service	A	A		A	A	A	B	C	B	C	B	
Approach Delay (s)		8.0			5.6			20.2			19.8	
Approach LOS		A			A			C			B	

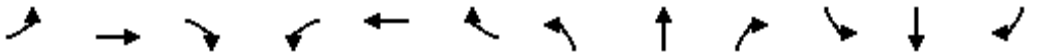
Intersection Summary			
HCM 2000 Control Delay	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	60.1	Sum of lost time (s)	10.2
Intersection Capacity Utilization	54.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



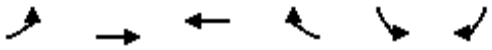
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	1100	100	160	640	70	0	0	0	100	190	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6		5.6	5.6						4.6	4.6
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frt	1.00	0.99		1.00	0.99						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.98	1.00
Satd. Flow (prot)	1770	3495		1770	3487						1831	1583
Flt Permitted	0.34	1.00		0.08	1.00						0.98	1.00
Satd. Flow (perm)	632	3495		158	3487						1831	1583
Peak-hour factor, PHF	0.72	0.72	0.72	0.95	0.95	0.95	0.92	0.92	0.92	0.70	0.70	0.70
Adj. Flow (vph)	42	1528	139	168	674	74	0	0	0	143	271	43
RTOR Reduction (vph)	0	5	0	0	6	0	0	0	0	0	0	16
Lane Group Flow (vph)	42	1662	0	168	742	0	0	0	0	0	414	27
Turn Type	Perm	NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases	2			6						4		4
Actuated Green, G (s)	84.9	84.9		84.9	84.9						33.1	33.1
Effective Green, g (s)	84.9	84.9		84.9	84.9						33.1	33.1
Actuated g/C Ratio	0.66	0.66		0.66	0.66						0.26	0.26
Clearance Time (s)	5.6	5.6		5.6	5.6						4.6	4.6
Vehicle Extension (s)	4.1	4.1		4.1	4.1						3.0	3.0
Lane Grp Cap (vph)	418	2314		104	2309						472	408
v/s Ratio Prot		0.48			0.21							
v/s Ratio Perm	0.07			c1.06							0.23	0.02
v/c Ratio	0.10	0.72		1.62	0.32						0.88	0.07
Uniform Delay, d1	7.8	13.9		21.6	9.3						45.6	35.9
Progression Factor	1.00	1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2	0.5	2.0		316.7	0.4						16.6	0.1
Delay (s)	8.3	15.9		338.3	9.7						62.2	35.9
Level of Service	A	B		F	A						E	D
Approach Delay (s)		15.7			69.9			0.0			59.7	
Approach LOS		B			E			A			E	

Intersection Summary			
HCM 2000 Control Delay	38.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.40		
Actuated Cycle Length (s)	128.2	Sum of lost time (s)	10.2
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	1190	10	0	270	0	0	0	0	550	370	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.1			4.1					4.6	4.6	3.6
Lane Util. Factor		0.95			0.95					0.91	0.91	1.00
Frt		1.00			1.00					1.00	1.00	0.85
Flt Protected		1.00			1.00					0.95	0.98	1.00
Satd. Flow (prot)		3535			3539					1610	3324	1583
Flt Permitted		1.00			1.00					0.95	0.98	1.00
Satd. Flow (perm)		3535			3539					1610	3324	1583
Peak-hour factor, PHF	0.89	0.89	0.89	0.97	0.97	0.97	0.92	0.92	0.92	0.97	0.97	0.97
Adj. Flow (vph)	0	1337	11	0	278	0	0	0	0	567	381	412
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	0	0	0	295
Lane Group Flow (vph)	0	1347	0	0	278	0	0	0	0	312	636	117
Turn Type		NA			NA					Split	NA	custom
Protected Phases		2			6					4	4	
Permitted Phases												7
Actuated Green, G (s)		37.3			37.3					29.0	29.0	21.3
Effective Green, g (s)		37.3			37.3					29.0	29.0	21.3
Actuated g/C Ratio		0.50			0.50					0.39	0.39	0.28
Clearance Time (s)		4.1			4.1					4.6	4.6	3.6
Vehicle Extension (s)		4.1			3.5					4.0	4.0	4.0
Lane Grp Cap (vph)		1758			1760					622	1285	449
v/s Ratio Prot		c0.38			0.08					c0.19	0.19	
v/s Ratio Perm												0.07
v/c Ratio		0.77			0.16					0.50	0.49	0.26
Uniform Delay, d1		15.3			10.3					17.5	17.4	20.8
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		3.3			0.2					0.9	0.4	0.4
Delay (s)		18.6			10.5					18.4	17.9	21.2
Level of Service		B			B					B	B	C
Approach Delay (s)		18.6			10.5			0.0			19.0	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	18.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	11.4
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

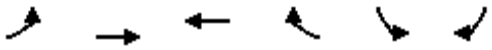


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱↱
Volume (vph)	0	1200	490	0	0	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.1			4.6
Lane Util. Factor		0.95	0.95			0.88
Frt		1.00	1.00			0.85
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		3539	3539			2787
Flt Permitted		1.00	1.00			1.00
Satd. Flow (perm)		3539	3539			2787
Peak-hour factor, PHF	0.72	0.72	0.92	0.92	0.91	0.91
Adj. Flow (vph)	0	1667	533	0	0	418
RTOR Reduction (vph)	0	0	0	0	0	49
Lane Group Flow (vph)	0	1667	533	0	0	369
Turn Type		NA	NA			Prot
Protected Phases		2 8	6			4
Permitted Phases						
Actuated Green, G (s)		160.8	96.8			55.3
Effective Green, g (s)		156.7	96.8			55.3
Actuated g/C Ratio		0.97	0.60			0.34
Clearance Time (s)			4.1			4.6
Vehicle Extension (s)			3.8			4.0
Lane Grp Cap (vph)		3448	2130			958
v/s Ratio Prot		c0.47	0.15			0.13
v/s Ratio Perm						
v/c Ratio		0.48	0.25			0.38
Uniform Delay, d1		0.1	15.0			39.9
Progression Factor		1.00	1.00			1.00
Incremental Delay, d2		0.0	0.3			0.4
Delay (s)		0.1	15.3			40.2
Level of Service		A	B			D
Approach Delay (s)		0.1	15.3		40.2	
Approach LOS		A	B		D	

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	160.8	Sum of lost time (s)	12.8
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

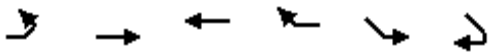
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	370	830	0	360	130	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0		4.6	4.6	4.6
Lane Util. Factor	0.91	0.91		0.95	1.00	1.00
Frt	0.92	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3121	1441		3539	1770	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3121	1441		3539	1770	1583
Peak-hour factor, PHF	0.73	0.73	0.92	0.92	0.95	0.95
Adj. Flow (vph)	507	1137	0	391	137	337
RTOR Reduction (vph)	191	0	0	0	0	59
Lane Group Flow (vph)	885	568	0	391	137	278
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	6			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	32.8	99.8		32.8	57.8	57.8
Effective Green, g (s)	32.8	99.8		32.8	57.8	57.8
Actuated g/C Ratio	0.33	1.00		0.33	0.58	0.58
Clearance Time (s)	4.6			4.6	4.6	4.6
Vehicle Extension (s)	3.0			3.0	2.0	2.0
Lane Grp Cap (vph)	1025	1441		1163	1025	916
v/s Ratio Prot	c0.28			0.11	0.08	
v/s Ratio Perm		c0.39				0.18
v/c Ratio	0.86	0.39		0.34	0.13	0.30
Uniform Delay, d1	31.4	0.0		25.3	9.6	10.7
Progression Factor	1.00	1.00		1.14	1.00	1.00
Incremental Delay, d2	7.7	0.8		0.1	0.0	0.1
Delay (s)	39.1	0.8		28.8	9.6	10.8
Level of Service	D	A		C	A	B
Approach Delay (s)	25.9			28.8	10.4	
Approach LOS	C			C	B	

Intersection Summary			
HCM 2000 Control Delay	23.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	99.8	Sum of lost time (s)	13.4
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



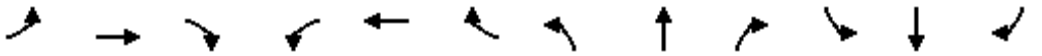
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	900	840	270	620	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.0	4.6	4.0		
Lane Util. Factor	1.00	0.95	0.95	1.00		
Frt	1.00	1.00	1.00	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	1770	3539	3539	1583		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	1770	3539	3539	1583		
Peak-hour factor, PHF	0.86	0.86	0.89	0.89	0.92	0.92
Adj. Flow (vph)	1047	977	303	697	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	1047	977	303	697	0	0
Turn Type	Prot	NA	NA	Free		
Protected Phases	2 3	Free	4			
Permitted Phases				Free		
Actuated Green, G (s)	52.5	99.8	38.5	99.8		
Effective Green, g (s)	52.5	99.8	38.5	99.8		
Actuated g/C Ratio	0.53	1.00	0.39	1.00		
Clearance Time (s)			4.6			
Vehicle Extension (s)			4.1			
Lane Grp Cap (vph)	931	3539	1365	1583		
v/s Ratio Prot	c0.59	0.28	0.09			
v/s Ratio Perm				c0.44		
v/c Ratio	1.12	0.28	0.22	0.44		
Uniform Delay, d1	23.6	0.0	20.6	0.0		
Progression Factor	1.00	1.00	0.75	1.00		
Incremental Delay, d2	70.0	0.2	0.1	0.8		
Delay (s)	93.7	0.2	15.5	0.8		
Level of Service	F	A	B	A		
Approach Delay (s)		48.6	5.3		0.0	
Approach LOS		D	A		A	

Intersection Summary			
HCM 2000 Control Delay	34.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	99.8	Sum of lost time (s)	13.4
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



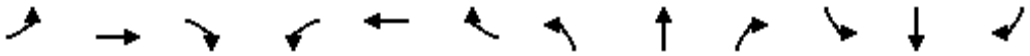
Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (vph)	0	690	360	890	840	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6	4.0	4.6	
Lane Util. Factor		0.95	0.91	0.91	0.97	
Frt		1.00	0.92	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3539	3109	1441	3433	
Flt Permitted		1.00	1.00	1.00	0.95	
Satd. Flow (perm)		3539	3109	1441	3433	
Peak-hour factor, PHF	0.77	0.77	0.91	0.91	0.88	0.88
Adj. Flow (vph)	0	896	396	978	955	0
RTOR Reduction (vph)	0	0	217	0	0	0
Lane Group Flow (vph)	0	896	668	489	955	0
Turn Type		NA	NA	Free	Prot	
Protected Phases		4	4		2 3	
Permitted Phases				Free		
Actuated Green, G (s)		38.5	38.5	99.8	52.5	
Effective Green, g (s)		38.5	38.5	99.8	52.5	
Actuated g/C Ratio		0.39	0.39	1.00	0.53	
Clearance Time (s)		4.6	4.6			
Vehicle Extension (s)		4.1	4.1			
Lane Grp Cap (vph)		1365	1199	1441	1805	
v/s Ratio Prot		c0.25	0.21		c0.28	
v/s Ratio Perm				0.34		
v/c Ratio		0.66	0.56	0.34	0.53	
Uniform Delay, d1		25.2	24.0	0.0	15.5	
Progression Factor		1.30	1.00	1.00	1.00	
Incremental Delay, d2		1.0	0.7	0.6	0.1	
Delay (s)		33.9	24.7	0.6	15.7	
Level of Service		C	C	A	B	
Approach Delay (s)		33.9	16.1		15.7	
Approach LOS		C	B		B	

Intersection Summary			
HCM 2000 Control Delay	20.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	99.8	Sum of lost time (s)	13.4
Intersection Capacity Utilization	51.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



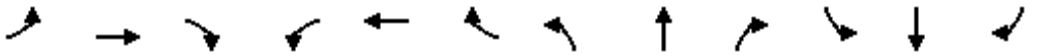
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	410	850	180	110	610	160	400	580	100	330	400	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9	4.9	4.0	4.9	4.9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3429		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3429		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.86	0.86	0.86	0.91	0.91	0.91	0.84	0.84	0.84	0.86	0.86	0.86
Adj. Flow (vph)	477	988	209	121	670	176	476	690	119	384	465	116
RTOR Reduction (vph)	0	0	54	0	19	0	0	0	64	0	0	86
Lane Group Flow (vph)	477	988	155	121	827	0	476	690	55	384	465	30
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8						6			2
Actuated Green, G (s)	18.7	42.3	42.3	8.6	32.2		16.2	29.3	29.3	16.8	29.9	29.9
Effective Green, g (s)	18.7	42.3	42.3	8.6	32.2		16.2	29.3	29.3	16.8	29.9	29.9
Actuated g/C Ratio	0.16	0.37	0.37	0.07	0.28		0.14	0.26	0.26	0.15	0.26	0.26
Clearance Time (s)	4.0	4.9	4.9	4.0	4.9		4.0	4.9	4.9	4.0	4.9	4.9
Vehicle Extension (s)	2.0	5.0	5.0	2.0	5.2		2.0	5.0	5.0	2.0	5.2	5.2
Lane Grp Cap (vph)	559	1304	583	257	961		484	903	404	502	921	412
v/s Ratio Prot	c0.14	0.28		0.04	c0.24		c0.14	c0.19		0.11	0.13	
v/s Ratio Perm			0.10						0.03			0.02
v/c Ratio	0.85	0.76	0.27	0.47	0.86		0.98	0.76	0.14	0.76	0.50	0.07
Uniform Delay, d1	46.7	31.8	25.4	50.9	39.2		49.2	39.6	33.0	47.1	36.1	32.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.6	3.1	0.5	0.5	8.7		36.3	4.6	0.3	6.2	1.0	0.2
Delay (s)	58.3	34.8	25.9	51.4	47.9		85.5	44.1	33.3	53.3	37.1	32.2
Level of Service	E	C	C	D	D		F	D	C	D	D	C
Approach Delay (s)		40.4			48.4			58.4			43.0	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	47.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	114.8	Sum of lost time (s)	17.8
Intersection Capacity Utilization	73.9%	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	0	0	120	0	150	0	170	50	210	250	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.2		4.2	4.2	4.0	4.2	
Lane Util. Factor					1.00	1.00		1.00	1.00	1.00	1.00	
Frt					1.00	0.85		1.00	0.85	1.00	1.00	
Flt Protected					0.95	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)					1770	1583		1863	1583	1770	1863	
Flt Permitted					0.95	1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)					1770	1583		1863	1583	1770	1863	
Peak-hour factor, PHF	0.85	0.85	0.85	0.57	0.85	0.57	0.85	0.83	0.83	0.88	0.88	0.85
Adj. Flow (vph)	0	0	0	211	0	263	0	205	60	239	284	0
RTOR Reduction (vph)	0	0	0	0	0	200	0	0	43	0	0	0
Lane Group Flow (vph)	0	0	0	0	211	63	0	205	17	239	284	0
Turn Type				Perm	NA	custom		NA	Perm	Prot	NA	
Protected Phases					8			6		5	2	
Permitted Phases				8		4	6		6			
Actuated Green, G (s)					12.8	12.6		14.8	14.8	13.0	31.8	
Effective Green, g (s)					12.8	12.6		14.8	14.8	13.0	31.8	
Actuated g/C Ratio					0.24	0.24		0.28	0.28	0.25	0.60	
Clearance Time (s)					4.0	4.2		4.2	4.2	4.0	4.2	
Vehicle Extension (s)					3.0	2.0		4.8	4.8	3.0	4.8	
Lane Grp Cap (vph)					429	377		522	443	435	1122	
v/s Ratio Prot								c0.11		c0.14	0.15	
v/s Ratio Perm					0.12	0.04			0.01			
v/c Ratio					0.49	0.17		0.39	0.04	0.55	0.25	
Uniform Delay, d1					17.2	15.9		15.4	13.8	17.3	4.9	
Progression Factor					1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2					0.9	0.1		1.0	0.1	1.4	0.2	
Delay (s)					18.1	16.0		16.3	13.9	18.8	5.2	
Level of Service					B	B		B	B	B	A	
Approach Delay (s)		0.0			16.9			15.8			11.4	
Approach LOS		A			B			B			B	

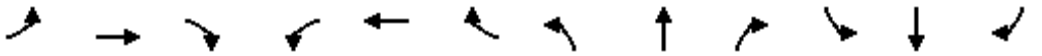
Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	52.8	Sum of lost time (s)	12.4
Intersection Capacity Utilization	39.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	80	140	120	140	40	120	310	30	90	300	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.90		1.00	0.97		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1685		1770	1801		1770	1838		1770	1863	1583
Flt Permitted	0.56	1.00		0.54	1.00		0.51	1.00		0.45	1.00	1.00
Satd. Flow (perm)	1043	1685		1009	1801		944	1838		844	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.84	0.73	0.73	0.73	0.88	0.88	0.88	0.91	0.91	0.91
Adj. Flow (vph)	71	95	167	164	192	55	136	352	34	99	330	55
RTOR Reduction (vph)	0	104	0	0	17	0	0	6	0	0	0	29
Lane Group Flow (vph)	71	158	0	164	230	0	136	380	0	99	330	26
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	22.8	22.8		22.8	22.8		28.8	28.8		28.8	28.8	28.8
Effective Green, g (s)	22.8	22.8		22.8	22.8		28.8	28.8		28.8	28.8	28.8
Actuated g/C Ratio	0.38	0.38		0.38	0.38		0.48	0.48		0.48	0.48	0.48
Clearance Time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Grp Cap (vph)	396	640		383	684		453	882		405	894	759
v/s Ratio Prot		0.09			0.13			c0.21			0.18	
v/s Ratio Perm	0.07			c0.16			0.14			0.12		0.02
v/c Ratio	0.18	0.25		0.43	0.34		0.30	0.43		0.24	0.37	0.03
Uniform Delay, d1	12.4	12.7		13.8	13.2		9.5	10.2		9.2	9.9	8.2
Progression Factor	0.91	0.80		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.0	0.9		3.5	1.3		1.7	1.5		1.4	1.2	0.1
Delay (s)	12.2	11.1		17.2	14.5		11.2	11.8		10.6	11.0	8.3
Level of Service	B	B		B	B		B	B		B	B	A
Approach Delay (s)		11.3			15.6			11.6			10.6	
Approach LOS		B			B			B			B	

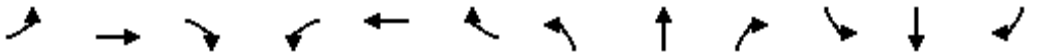
Intersection Summary			
HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



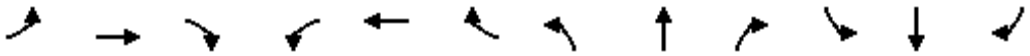
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	180	810	20	70	640	100	10	30	70	90	50	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8		4.8	4.8		4.8	4.8	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.98		1.00	0.89		1.00	0.88	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	3528		1687	3443		1805	1602		1805	1615	
Flt Permitted	0.28	1.00		0.19	1.00		0.45	1.00		0.68	1.00	
Satd. Flow (perm)	530	3528		343	3443		856	1602		1299	1615	
Peak-hour factor, PHF	0.77	0.77	0.77	0.87	0.87	0.87	0.87	0.87	0.87	0.85	0.85	0.85
Adj. Flow (vph)	234	1052	26	80	736	115	11	34	80	106	59	259
RTOR Reduction (vph)	0	3	0	0	21	0	0	50	0	0	116	0
Lane Group Flow (vph)	234	1075	0	80	830	0	11	64	0	106	202	0
Heavy Vehicles (%)	1%	2%	0%	7%	3%	1%	0%	11%	4%	0%	0%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	31.2	31.2		31.2	31.2		19.2	19.2		19.2	19.2	
Effective Green, g (s)	31.2	31.2		31.2	31.2		19.2	19.2		19.2	19.2	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.32	0.32		0.32	0.32	
Clearance Time (s)	4.8	4.8		4.8	4.8		4.8	4.8		4.8	4.8	
Lane Grp Cap (vph)	275	1834		178	1790		273	512		415	516	
v/s Ratio Prot		0.30			0.24			0.04			c0.13	
v/s Ratio Perm	c0.44			0.23			0.01			0.08		
v/c Ratio	0.85	0.59		0.45	0.46		0.04	0.12		0.26	0.39	
Uniform Delay, d1	12.4	9.9		9.0	9.1		14.1	14.4		15.1	15.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	26.7	1.4		8.0	0.9		0.3	0.5		1.5	2.2	
Delay (s)	39.1	11.3		17.0	10.0		14.3	14.9		16.6	18.1	
Level of Service	D	B		B	A		B	B		B	B	
Approach Delay (s)		16.3			10.6			14.9			17.7	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	80.2%	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	850	120	290	500	0	0	0	0	230	10	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		5.2	5.2					4.2	4.2	
Lane Util. Factor		0.95		1.00	0.95					1.00	1.00	
Frt		0.98		1.00	1.00					1.00	0.85	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3474		1770	3539					1770	1592	
Flt Permitted		1.00		0.20	1.00					0.95	1.00	
Satd. Flow (perm)		3474		376	3539					1770	1592	
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92	0.94	0.94	0.94
Adj. Flow (vph)	0	924	130	309	532	0	0	0	0	245	11	330
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	0	0	72	0
Lane Group Flow (vph)	0	1042	0	309	532	0	0	0	0	245	269	0
Turn Type		NA		Perm	NA					Split	NA	
Protected Phases		2			2					4	4	
Permitted Phases				2								
Actuated Green, G (s)		22.0		22.0	22.0					15.0	15.0	
Effective Green, g (s)		22.0		22.0	22.0					15.0	15.0	
Actuated g/C Ratio		0.47		0.47	0.47					0.32	0.32	
Clearance Time (s)		5.2		5.2	5.2					4.2	4.2	
Vehicle Extension (s)		0.2		0.2	0.2					5.2	5.2	
Lane Grp Cap (vph)		1647		178	1677					572	514	
v/s Ratio Prot		0.30			0.15					0.14	c0.17	
v/s Ratio Perm				c0.82								
v/c Ratio		0.63		1.74	0.32					0.43	0.52	
Uniform Delay, d1		9.2		12.2	7.6					12.3	12.8	
Progression Factor		1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2		0.6		353.5	0.0					1.2	1.9	
Delay (s)		9.8		365.7	7.6					13.5	14.7	
Level of Service		A		F	A					B	B	
Approach Delay (s)		9.8			139.2			0.0			14.2	
Approach LOS		A			F			A			B	

Intersection Summary			
HCM 2000 Control Delay	54.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	46.4	Sum of lost time (s)	9.4
Intersection Capacity Utilization	78.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



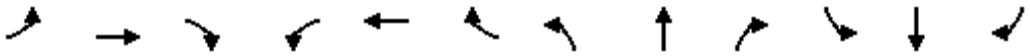
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	450	630	0	0	730	580	60	10	140	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95			1.00	1.00			
Frt	1.00	1.00			0.93			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.96	1.00			
Satd. Flow (prot)	1770	3539			3304			1786	1583			
Flt Permitted	0.95	1.00			1.00			0.96	1.00			
Satd. Flow (perm)	1770	3539			3304			1786	1583			
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.59	0.59	0.59	0.92	0.92	0.92
Adj. Flow (vph)	479	670	0	0	820	652	102	17	237	0	0	0
RTOR Reduction (vph)	0	0	0	0	152	0	0	0	206	0	0	0
Lane Group Flow (vph)	479	670	0	0	1320	0	0	119	31	0	0	0
Turn Type	Prot	NA			NA		Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	25.2	65.3			36.1			11.0	11.0			
Effective Green, g (s)	25.2	65.3			36.1			11.0	11.0			
Actuated g/C Ratio	0.30	0.77			0.43			0.13	0.13			
Clearance Time (s)	4.0	4.0			4.0			4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			
Lane Grp Cap (vph)	529	2741			1414			233	206			
v/s Ratio Prot	c0.27	0.19			c0.40							
v/s Ratio Perm								0.07	0.02			
v/c Ratio	0.91	0.24			0.93			0.51	0.15			
Uniform Delay, d1	28.4	2.6			23.0			34.1	32.5			
Progression Factor	1.00	1.00			1.00			1.00	1.00			
Incremental Delay, d2	18.9	0.0			11.5			1.9	0.3			
Delay (s)	47.3	2.7			34.5			36.0	32.8			
Level of Service	D	A			C			D	C			
Approach Delay (s)		21.3			34.5			33.9			0.0	
Approach LOS		C			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	29.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	84.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.4%	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 (veh/h)	70	690	10	10	1180	40	10	10	20	40	10	120
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.88	0.88	0.88	0.75	0.75	0.75	0.68	0.68	0.68
Hourly flow rate (vph)	79	775	11	11	1341	45	13	13	27	59	15	176
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		270			797							
pX, platoon unblocked	0.74			0.95			0.76	0.76	0.95	0.76	0.76	0.74
vC, conflicting volume	1386			787			1815	2347	393	1965	2330	693
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	824			680			1180	1876	268	1376	1854	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	87			99			77	71	96	0	69	78
cM capacity (veh/h)	595			866			59	46	696	53	48	804

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	466	399	682	716	53	250
Volume Left	79	0	11	0	13	59
Volume Right	0	11	0	45	27	176
cSH	595	1700	866	1700	97	153
Volume to Capacity	0.13	0.23	0.01	0.42	0.55	1.63
Queue Length 95th (ft)	11	0	1	0	63	436
Control Delay (s)	3.7	0.0	0.3	0.0	80.6	363.1
Lane LOS	A		A		F	F
Approach Delay (s)	2.0		0.2		80.6	363.1
Approach LOS					F	F

Intersection Summary				
Average Delay	37.8			
Intersection Capacity Utilization	78.8%	ICU Level of Service	D	
Analysis Period (min)	15			



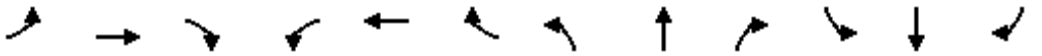
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	640	30	100	940	230	80	290	90	350	230	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	0.96		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3515		1770	3435		1770	1796		1770	1740	
Flt Permitted	0.11	1.00		0.34	1.00		0.25	1.00		0.31	1.00	
Satd. Flow (perm)	204	3515		627	3435		472	1796		568	1740	
Peak-hour factor, PHF	0.94	0.94	0.94	0.85	0.85	0.85	0.93	0.93	0.93	0.91	0.91	0.91
Adj. Flow (vph)	106	681	32	118	1106	271	86	312	97	385	253	198
RTOR Reduction (vph)	0	4	0	0	27	0	0	14	0	0	35	0
Lane Group Flow (vph)	106	709	0	118	1350	0	86	395	0	385	416	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			4	
Permitted Phases	6			2			4			4		
Actuated Green, G (s)	44.5	44.5		44.5	44.5		26.8	26.8		26.8	26.8	
Effective Green, g (s)	44.5	44.5		44.5	44.5		26.8	26.8		26.8	26.8	
Actuated g/C Ratio	0.56	0.56		0.56	0.56		0.34	0.34		0.34	0.34	
Clearance Time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)	113	1955		348	1910		158	601		190	582	
v/s Ratio Prot		0.20			0.39			0.22			0.24	
v/s Ratio Perm	c0.52			0.19			0.18			c0.68		
v/c Ratio	0.94	0.36		0.34	0.71		0.54	0.66		2.03	0.71	
Uniform Delay, d1	16.5	9.9		9.7	13.0		21.6	22.7		26.6	23.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	69.2	0.5		2.6	2.2		6.6	3.5		479.8	5.1	
Delay (s)	85.7	10.4		12.3	15.2		28.2	26.2		506.4	28.4	
Level of Service	F	B		B	B		C	C		F	C	
Approach Delay (s)		20.1			15.0			26.5			248.5	
Approach LOS		C			B			C			F	

Intersection Summary			
HCM 2000 Control Delay	71.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.34		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.7
Intersection Capacity Utilization	108.8%	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 (veh/h)	50	1000	30	10	950	170	40	20	10	70	20	280
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.77	0.77	0.77	0.73	0.73	0.73	0.82	0.82	0.82
Hourly flow rate (vph)	55	1099	33	13	1234	221	55	27	14	85	24	341
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		681			400							
pX, platoon unblocked	0.82			0.92			0.86	0.86	0.92	0.86	0.86	0.82
vC, conflicting volume	1455			1132			2222	2706	566	2057	2612	727
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1106			962			1656	2220	345	1463	2111	214
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	89			98			0	15	98	0	35	47
cM capacity (veh/h)	512			652			11	32	597	20	38	645

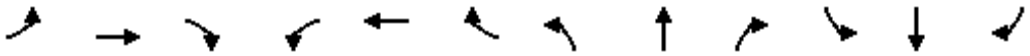
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	55	733	399	13	823	632	96	451
Volume Left	55	0	0	13	0	0	55	85
Volume Right	0	0	33	0	0	221	14	341
cSH	512	1700	1700	652	1700	1700	17	81
Volume to Capacity	0.11	0.43	0.23	0.02	0.48	0.37	5.64	5.54
Queue Length 95th (ft)	9	0	0	2	0	0	Err	Err
Control Delay (s)	12.9	0.0	0.0	10.6	0.0	0.0	Err	Err
Lane LOS	B			B			F	F
Approach Delay (s)	0.6			0.1			Err	Err
Approach LOS							F	F

Intersection Summary				
Average Delay	1709.0			
Intersection Capacity Utilization	67.4%	ICU Level of Service	C	
Analysis Period (min)	15			



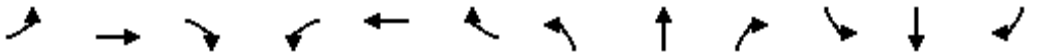
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	630	350	60	950	30	170	20	20	100	130	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		5.6	5.6		5.6	5.6	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.95		1.00	1.00		1.00	0.93		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3349		1770	3523		1770	1723		1770	1826	
Flt Permitted	0.95	1.00		0.95	1.00		0.48	1.00		0.73	1.00	
Satd. Flow (perm)	1770	3349		1770	3523		898	1723		1352	1826	
Peak-hour factor, PHF	0.91	0.91	0.91	0.94	0.94	0.94	0.84	0.84	0.84	0.62	0.62	0.62
Adj. Flow (vph)	22	692	385	64	1011	32	202	24	24	161	210	32
RTOR Reduction (vph)	0	77	0	0	2	0	0	18	0	0	7	0
Lane Group Flow (vph)	22	1000	0	64	1041	0	202	30	0	161	235	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	2.7	37.9		15.2	50.4		23.1	23.1		23.1	23.1	
Effective Green, g (s)	2.7	37.9		15.2	50.4		23.1	23.1		23.1	23.1	
Actuated g/C Ratio	0.03	0.42		0.17	0.56		0.26	0.26		0.26	0.26	
Clearance Time (s)	4.0	4.2		4.0	4.2		5.6	5.6		5.6	5.6	
Vehicle Extension (s)	2.0	4.0		2.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	53	1410		298	1972		230	442		347	468	
v/s Ratio Prot	0.01	c0.30		0.04	c0.30			0.02			0.13	
v/s Ratio Perm							c0.22			0.12		
v/c Ratio	0.42	0.71		0.21	0.53		0.88	0.07		0.46	0.50	
Uniform Delay, d1	42.9	21.5		32.3	12.4		32.1	25.3		28.2	28.5	
Progression Factor	1.00	1.00		0.51	0.32		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.9	3.0		0.0	0.4		29.9	0.1		1.3	1.2	
Delay (s)	44.8	24.5		16.4	4.3		62.0	25.4		29.6	29.7	
Level of Service	D	C		B	A		E	C		C	C	
Approach Delay (s)		25.0			5.0			55.0			29.7	
Approach LOS		C			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.8
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



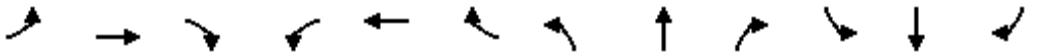
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	650	160	80	750	220	200	260	70	180	340	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		5.2	5.2	5.2	4.2	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.97		1.00	0.97		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3434		1770	3419		1770	1863	1583	1770	1821	
Flt Permitted	0.95	1.00		0.95	1.00		0.30	1.00	1.00	0.50	1.00	
Satd. Flow (perm)	1770	3434		1770	3419		567	1863	1583	925	1821	
Peak-hour factor, PHF	0.91	0.91	0.91	0.80	0.80	0.80	0.87	0.87	0.87	0.85	0.85	0.85
Adj. Flow (vph)	55	714	176	100	938	275	230	299	80	212	400	71
RTOR Reduction (vph)	0	23	0	0	29	0	0	0	47	0	7	0
Lane Group Flow (vph)	55	867	0	100	1184	0	230	299	33	212	464	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	8.0	32.1		7.4	31.5		37.1	37.1	37.1	38.1	38.1	
Effective Green, g (s)	8.0	32.1		7.4	31.5		37.1	37.1	37.1	38.1	38.1	
Actuated g/C Ratio	0.09	0.36		0.08	0.35		0.41	0.41	0.41	0.42	0.42	
Clearance Time (s)	4.0	4.2		4.0	4.2		5.2	5.2	5.2	4.2	4.2	
Vehicle Extension (s)	2.0	4.8		2.0	4.8		4.8	4.8	4.8	4.8	4.8	
Lane Grp Cap (vph)	157	1224		145	1196		233	767	652	391	770	
v/s Ratio Prot	0.03	c0.25		0.06	c0.35			0.16			0.25	
v/s Ratio Perm							c0.41		0.02	0.23		
v/c Ratio	0.35	0.71		0.69	0.99		0.99	0.39	0.05	0.54	0.60	
Uniform Delay, d1	38.6	24.9		40.2	29.1		26.2	18.5	15.9	19.4	20.1	
Progression Factor	0.66	0.56		1.50	0.99		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	2.9		8.6	21.3		55.1	0.6	0.1	2.5	1.9	
Delay (s)	25.9	16.8		68.8	50.0		81.3	19.2	15.9	22.0	22.0	
Level of Service	C	B		E	D		F	B	B	C	C	
Approach Delay (s)		17.3			51.4			42.2			22.0	
Approach LOS		B			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	35.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



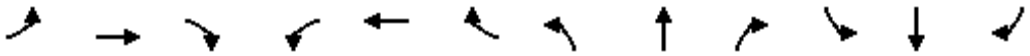
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	910	30	50	980	40	70	110	10	20	550	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.0	4.0			4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.99		1.00	0.99			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1770	3522		1770	3519		1770	1839			1859	1583
Flt Permitted	0.16	1.00		0.24	1.00		0.15	1.00			0.99	1.00
Satd. Flow (perm)	296	3522		439	3519		287	1839			1839	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.81	0.81	0.81	0.92	0.92	0.92	0.81	0.81	0.81
Adj. Flow (vph)	11	968	32	62	1210	49	76	120	11	25	679	25
RTOR Reduction (vph)	0	3	0	0	3	0	0	4	0	0	0	11
Lane Group Flow (vph)	11	997	0	62	1256	0	76	127	0	0	704	14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	55.8	55.8		55.8	55.8		26.0	26.0			25.8	25.8
Effective Green, g (s)	55.8	55.8		55.8	55.8		26.0	26.0			25.8	25.8
Actuated g/C Ratio	0.62	0.62		0.62	0.62		0.29	0.29			0.29	0.29
Clearance Time (s)	4.2	4.2		4.2	4.2		4.0	4.0			4.2	4.2
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0			2.0	2.0
Lane Grp Cap (vph)	183	2183		272	2181		82	531			527	453
v/s Ratio Prot		0.28			c0.36			0.07				
v/s Ratio Perm	0.04			0.14			0.27				c0.38	0.01
v/c Ratio	0.06	0.46		0.23	0.58		0.93	0.24			1.34	0.03
Uniform Delay, d1	6.7	9.1		7.6	10.1		31.1	24.5			32.1	23.1
Progression Factor	1.36	1.02		1.72	1.61		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.5	0.5		1.8	1.0		74.4	0.2			163.7	0.0
Delay (s)	9.7	9.8		14.8	17.3		105.5	24.7			195.8	23.1
Level of Service	A	A		B	B		F	C			F	C
Approach Delay (s)		9.8			17.2			54.3			189.9	
Approach LOS		A			B			D			F	

Intersection Summary			
HCM 2000 Control Delay	55.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	88.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



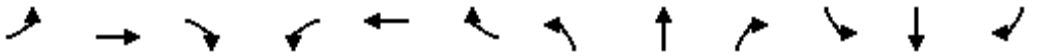
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	680	110	10	650	50	230	130	20	90	130	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2	4.2	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	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	0.98	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1681	1740	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.52	0.74	1.00	0.42	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	927	1306	1583	784	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.89	0.89	0.89	0.86	0.86	0.86	0.70	0.70	0.70
Adj. Flow (vph)	54	739	120	11	730	56	267	151	23	129	186	243
RTOR Reduction (vph)	0	0	39	0	0	25	0	0	18	0	0	159
Lane Group Flow (vph)	54	739	81	11	730	31	190	228	5	129	186	84
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	3	8		7	4			6			2	
Permitted Phases			8			4	6		6	2		2
Actuated Green, G (s)	6.3	55.5	55.5	1.3	50.5	50.5	20.8	20.8	20.8	20.8	20.8	20.8
Effective Green, g (s)	6.3	55.5	55.5	1.3	50.5	50.5	20.8	20.8	20.8	20.8	20.8	20.8
Actuated g/C Ratio	0.07	0.62	0.62	0.01	0.56	0.56	0.23	0.23	0.23	0.23	0.23	0.23
Clearance Time (s)	4.0	4.2	4.2	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Vehicle Extension (s)	2.0	4.9	4.9	2.0	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Lane Grp Cap (vph)	123	2182	976	25	1985	888	214	301	365	181	430	365
v/s Ratio Prot	c0.03	0.21		0.01	c0.21						0.10	
v/s Ratio Perm			0.05			0.02	c0.20	0.17	0.00	0.16		0.05
v/c Ratio	0.44	0.34	0.08	0.44	0.37	0.04	0.89	0.76	0.01	0.71	0.43	0.23
Uniform Delay, d1	40.2	8.4	7.0	44.0	10.9	8.8	33.5	32.2	26.7	31.8	29.6	28.1
Progression Factor	0.84	0.67	1.28	1.41	0.62	0.48	0.91	0.91	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.4	0.1	4.2	0.5	0.1	34.0	11.9	0.0	15.0	1.4	0.7
Delay (s)	34.5	6.0	9.1	66.3	7.3	4.3	64.4	41.1	26.7	46.9	31.0	28.7
Level of Service	C	A	A	E	A	A	E	D	C	D	C	C
Approach Delay (s)		8.1			7.9			50.4			33.7	
Approach LOS		A			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



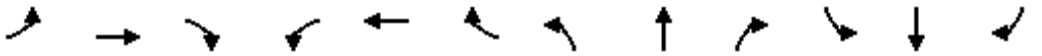
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	670	0	0	650	80	40	60	120	280	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2			4.2		3.2	3.2	3.2		4.0	
Lane Util. Factor	1.00	0.95			0.95		1.00	1.00	1.00		1.00	
Frt	1.00	1.00			0.98		1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1770	3539			3481		1770	1863	1583		1764	
Flt Permitted	0.30	1.00			1.00		0.78	1.00	1.00		0.69	
Satd. Flow (perm)	561	3539			3481		1448	1863	1583		1270	
Peak-hour factor, PHF	0.91	0.91	0.91	0.87	0.87	0.87	0.82	0.82	0.82	0.92	0.92	0.92
Adj. Flow (vph)	88	736	0	0	747	92	49	73	146	304	0	22
RTOR Reduction (vph)	0	0	0	0	10	0	0	0	107	0	20	0
Lane Group Flow (vph)	88	736	0	0	829	0	49	73	39	0	306	0
Turn Type	Perm	NA			NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8		8	4		
Actuated Green, G (s)	57.7	57.7			58.7		23.9	23.9	23.9		23.1	
Effective Green, g (s)	57.7	57.7			58.7		23.9	23.9	23.9		23.1	
Actuated g/C Ratio	0.64	0.64			0.65		0.27	0.27	0.27		0.26	
Clearance Time (s)	5.2	5.2			4.2		3.2	3.2	3.2		4.0	
Vehicle Extension (s)	2.0	2.0			2.0		2.0	2.0	2.0		3.0	
Lane Grp Cap (vph)	359	2268			2270		384	494	420		325	
v/s Ratio Prot		0.21			c0.24			0.04				
v/s Ratio Perm	0.16						0.03		0.02		c0.24	
v/c Ratio	0.25	0.32			0.37		0.13	0.15	0.09		0.94	
Uniform Delay, d1	6.9	7.3			7.1		25.1	25.3	24.9		32.8	
Progression Factor	0.44	0.43			1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	1.5	0.4			0.5		0.1	0.1	0.0		34.7	
Delay (s)	4.5	3.5			7.6		25.2	25.3	24.9		67.5	
Level of Service	A	A			A		C	C	C		E	
Approach Delay (s)		3.6			7.6			25.1			67.5	
Approach LOS		A			A			C			E	

Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



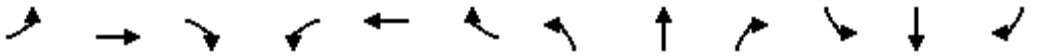
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	220	750	10	30	500	330	10	270	20	210	180	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6	4.6	4.6	4.6		4.6	4.6	4.6
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3532		1770	3539	1583	1770	3503		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.54	1.00		0.51	1.00	1.00
Satd. Flow (perm)	1770	3532		1770	3539	1583	1004	3503		953	1863	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.77	0.77	0.77	0.91	0.91	0.91	0.89	0.89	0.89
Adj. Flow (vph)	234	798	11	39	649	429	11	297	22	236	202	157
RTOR Reduction (vph)	0	1	0	0	0	223	0	7	0	0	0	114
Lane Group Flow (vph)	234	808	0	39	649	206	11	312	0	236	202	43
Turn Type	Prot	NA		Prot	NA	custom	Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases						8	8			4		4
Actuated Green, G (s)	14.8	47.4		4.5	37.1	24.9	24.9	24.9		24.9	24.9	24.9
Effective Green, g (s)	14.8	47.4		4.5	37.1	24.9	24.9	24.9		24.9	24.9	24.9
Actuated g/C Ratio	0.16	0.53		0.05	0.41	0.28	0.28	0.28		0.28	0.28	0.28
Clearance Time (s)	4.0	4.6		4.0	4.6	4.6	4.6	4.6		4.6	4.6	4.6
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	291	1860		88	1458	437	277	969		263	515	437
v/s Ratio Prot	c0.13	c0.23		0.02	0.18			0.09			0.11	
v/s Ratio Perm						0.13	0.01			c0.25		0.03
v/c Ratio	0.80	0.43		0.44	0.45	0.47	0.04	0.32		0.90	0.39	0.10
Uniform Delay, d1	36.2	13.1		41.5	19.0	27.1	23.8	25.9		31.3	26.4	24.2
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	14.0	0.7		1.3	1.0	0.3	0.0	0.1		29.3	0.2	0.0
Delay (s)	50.2	13.8		42.8	20.0	27.4	23.8	25.9		60.7	26.6	24.2
Level of Service	D	B		D	C	C	C	C		E	C	C
Approach Delay (s)		22.0			23.6			25.9			39.5	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	26.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



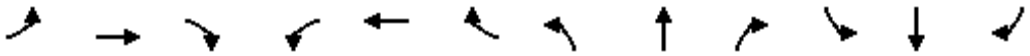
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	10	220	30	350	20	230	0	0	240	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.2	4.6	4.6	4.6	4.2	4.6			4.6	4.6
Lane Util. Factor			1.00	1.00	1.00	0.88	1.00	1.00			1.00	1.00
Frt			0.86	1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00	0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1611	1770	1863	2787	1770	1863			1863	1583
Flt Permitted			1.00	0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1611	1770	1863	2787	1770	1863			1863	1583
Peak-hour factor, PHF	0.50	0.50	0.50	0.88	0.88	0.88	0.78	0.78	0.78	0.76	0.76	0.76
Adj. Flow (vph)	0	0	20	250	34	398	26	295	0	0	316	13
RTOR Reduction (vph)	0	0	14	0	0	295	0	0	0	0	0	6
Lane Group Flow (vph)	0	0	6	250	34	103	26	295	0	0	316	7
Turn Type			pm+ov	Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1		4		1	6			2	
Permitted Phases			8	4		4						2
Actuated Green, G (s)			27.5	23.4	23.4	23.4	4.1	57.4			49.1	49.1
Effective Green, g (s)			27.5	23.4	23.4	23.4	4.1	57.4			49.1	49.1
Actuated g/C Ratio			0.31	0.26	0.26	0.26	0.05	0.64			0.55	0.55
Clearance Time (s)			4.2	4.6	4.6	4.6	4.2	4.6			4.6	4.6
Vehicle Extension (s)			2.0	5.3	5.3	5.3	2.0	5.1			5.2	5.2
Lane Grp Cap (vph)			492	460	484	724	80	1188			1016	863
v/s Ratio Prot			0.00		0.02		0.01	c0.16			c0.17	
v/s Ratio Perm			0.00	c0.14		0.04						0.00
v/c Ratio			0.01	0.54	0.07	0.14	0.33	0.25			0.31	0.01
Uniform Delay, d1			21.8	28.7	25.1	25.6	41.6	7.0			11.2	9.3
Progression Factor			1.00	1.00	1.00	1.00	1.00	1.00			0.63	1.00
Incremental Delay, d2			0.0	2.5	0.1	0.2	0.9	0.5			0.8	0.0
Delay (s)			21.8	31.2	25.2	25.8	42.5	7.5			7.8	9.4
Level of Service			C	C	C	C	D	A			A	A
Approach Delay (s)		21.8			27.8			10.3			7.9	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



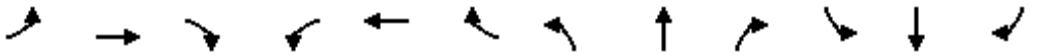
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	340	40	0	0	0	0	120	330	570	110	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		0.99						0.90		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		3463						1678		1770	1863	
Flt Permitted		0.99						1.00		0.42	1.00	
Satd. Flow (perm)		3463						1678		788	1863	
Peak-hour factor, PHF	0.83	0.83	0.83	0.92	0.92	0.92	0.83	0.83	0.83	0.86	0.86	0.86
Adj. Flow (vph)	96	410	48	0	0	0	0	145	398	663	128	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	8	0	0	0	0
Lane Group Flow (vph)	0	547	0	0	0	0	0	535	0	663	128	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		16.0						76.0		76.0	76.0	
Effective Green, g (s)		16.0						76.0		76.0	76.0	
Actuated g/C Ratio		0.16						0.76		0.76	0.76	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		554						1275		598	1415	
v/s Ratio Prot								0.32			0.07	
v/s Ratio Perm		0.16								c0.84		
v/c Ratio		0.99						0.42		1.11	0.09	
Uniform Delay, d1		41.9						4.2		12.0	3.1	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		34.8						0.2		70.3	0.0	
Delay (s)		76.7						4.5		82.3	3.1	
Level of Service		E						A		F	A	
Approach Delay (s)		76.7			0.0			4.5			69.5	
Approach LOS		E			A			A			E	

Intersection Summary			
HCM 2000 Control Delay	52.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.2%	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	0	0	90	0	330	120	270	0	0	390	380
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	
Lane Util. Factor					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.93	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1770	1583	1770	1863			1739	
Flt Permitted					0.95	1.00	0.17	1.00			1.00	
Satd. Flow (perm)					1770	1583	310	1863			1739	
Peak-hour factor, PHF	0.92	0.92	0.92	0.81	0.81	0.81	0.86	0.86	0.86	0.79	0.79	0.79
Adj. Flow (vph)	0	0	0	111	0	407	140	314	0	0	494	481
RTOR Reduction (vph)	0	0	0	0	0	334	0	0	0	0	47	0
Lane Group Flow (vph)	0	0	0	0	111	73	140	314	0	0	928	0
Turn Type				Perm	NA	Perm	Perm	NA			NA	
Protected Phases					6			8			8	
Permitted Phases				6		6	8					
Actuated Green, G (s)					9.9	9.9	37.3	37.3			37.3	
Effective Green, g (s)					9.9	9.9	37.3	37.3			37.3	
Actuated g/C Ratio					0.18	0.18	0.68	0.68			0.68	
Clearance Time (s)					4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)					3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)					317	283	209	1258			1175	
v/s Ratio Prot								0.17			c0.53	
v/s Ratio Perm					0.06	0.05	0.45					
v/c Ratio					0.35	0.26	0.67	0.25			0.79	
Uniform Delay, d1					19.8	19.5	5.3	3.5			6.2	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					0.7	0.5	7.9	0.1			3.6	
Delay (s)					20.5	20.0	13.2	3.6			9.8	
Level of Service					C	B	B	A			A	
Approach Delay (s)		0.0			20.1			6.6			9.8	
Approach LOS		A			C			A			A	

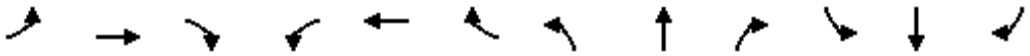
Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	55.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	100	80	50	0	0	0	0	290	80	300	180	0
Peak Hour Factor	0.80	0.80	0.80	0.92	0.92	0.92	0.82	0.82	0.82	0.83	0.83	0.83
Hourly flow rate (vph)	125	100	62	0	0	0	0	354	98	361	217	0

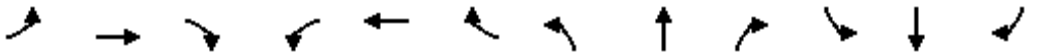
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2
Volume Total (vph)	175	113	451	361	217
Volume Left (vph)	125	0	0	361	0
Volume Right (vph)	0	63	98	0	0
Hadj (s)	0.39	-0.35	-0.10	0.53	0.03
Departure Headway (s)	7.6	6.8	6.2	6.7	6.2
Degree Utilization, x	0.37	0.21	0.78	0.68	0.38
Capacity (veh/h)	447	493	570	516	563
Control Delay (s)	13.8	10.5	27.4	21.5	11.7
Approach Delay (s)	12.5		27.4	17.9	
Approach LOS	B		D	C	

Intersection Summary				
Delay	20.0			
Level of Service	C			
Intersection Capacity Utilization	65.4%	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)	0	0	0	10	840	70	30	140	0	0	80	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.6		5.6	5.6			5.6	
Lane Util. Factor					0.95		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.96	
Flt Protected					1.00		0.95	1.00			1.00	
Satd. Flow (prot)					3535		1805	1900			1715	
Flt Permitted					1.00		0.69	1.00			1.00	
Satd. Flow (perm)					3535		1304	1900			1715	
Peak-hour factor, PHF	0.85	0.85	0.85	0.86	0.86	0.86	0.34	0.34	0.34	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	12	977	81	88	412	0	0	80	30
RTOR Reduction (vph)	0	0	0	0	10	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	0	0	0	1060	0	88	412	0	0	106	0
Heavy Vehicles (%)	2%	2%	2%	0%	1%	0%	0%	0%	0%	0%	7%	6%
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4			2					
Actuated Green, G (s)					16.4		32.4	32.4			32.4	
Effective Green, g (s)					16.4		32.4	32.4			32.4	
Actuated g/C Ratio					0.27		0.54	0.54			0.54	
Clearance Time (s)					5.6		5.6	5.6			5.6	
Lane Grp Cap (vph)					966		704	1026			926	
v/s Ratio Prot								c0.22			0.06	
v/s Ratio Perm					0.30		0.07					
v/c Ratio					1.10		0.12	0.40			0.11	
Uniform Delay, d1					21.8		6.8	8.1			6.8	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					59.2		0.4	1.2			0.3	
Delay (s)					81.0		7.2	9.3			7.0	
Level of Service					F		A	A			A	
Approach Delay (s)		0.0			81.0			8.9			7.0	
Approach LOS		A			F			A			A	

Intersection Summary			
HCM 2000 Control Delay	54.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	11.2
Intersection Capacity Utilization	81.4%	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)	210	820	10	0	0	0	0	60	50	80	30	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2						4.0		4.0	4.0	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		1.00						0.94		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		3513						1749		1703	1863	
Flt Permitted		0.99						1.00		0.95	1.00	
Satd. Flow (perm)		3513						1749		1703	1863	
Peak-hour factor, PHF	0.86	0.86	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.83	0.85	0.83
Adj. Flow (vph)	244	953	12	0	0	0	0	71	59	96	35	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	40	0	0	0	0
Lane Group Flow (vph)	0	1209	0	0	0	0	0	90	0	96	35	0
Heavy Vehicles (%)	0%	2%	2%	2%	0%	0%	2%	2%	2%	6%	2%	0%
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		8						2!		2!	6	
Permitted Phases	8											
Actuated Green, G (s)		32.3						19.1		19.1	19.1	
Effective Green, g (s)		32.3						19.1		19.1	19.1	
Actuated g/C Ratio		0.54						0.32		0.32	0.32	
Clearance Time (s)		4.2						4.0		4.0	4.0	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		1903						560		545	597	
v/s Ratio Prot								0.05		c0.06	0.02	
v/s Ratio Perm		0.34										
v/c Ratio		0.64						0.16		0.18	0.06	
Uniform Delay, d1		9.5						14.5		14.6	14.0	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.7						0.1		0.2	0.0	
Delay (s)		10.2						14.6		14.7	14.1	
Level of Service		B						B		B	B	
Approach Delay (s)		10.2			0.0			14.6			14.6	
Approach LOS		B			A			B			B	

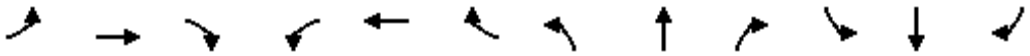
Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	8.2
Intersection Capacity Utilization	81.4%	ICU Level of Service	D
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	270	60	10	340	80	110	360	30	20	40	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	0.97		1.00	0.99		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1812		1770	1810		1770	1841		1770	1744	
Flt Permitted	0.36	1.00		0.49	1.00		0.69	1.00		0.32	1.00	
Satd. Flow (perm)	673	1812		920	1810		1288	1841		603	1744	
Peak-hour factor, PHF	0.87	0.87	0.87	0.79	0.79	0.79	0.94	0.94	0.94	0.69	0.69	0.69
Adj. Flow (vph)	69	310	69	13	430	101	117	383	32	29	58	43
RTOR Reduction (vph)	0	13	0	0	14	0	0	5	0	0	30	0
Lane Group Flow (vph)	69	366	0	13	517	0	117	410	0	29	71	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	30.6	30.6		30.6	30.6		18.6	18.6		18.6	18.6	
Effective Green, g (s)	30.6	30.6		30.6	30.6		18.6	18.6		18.6	18.6	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.31	0.31		0.31	0.31	
Clearance Time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Lane Grp Cap (vph)	343	924		469	923		399	570		186	540	
v/s Ratio Prot		0.20			c0.29			c0.22			0.04	
v/s Ratio Perm	0.10			0.01			0.09			0.05		
v/c Ratio	0.20	0.40		0.03	0.56		0.29	0.72		0.16	0.13	
Uniform Delay, d1	8.0	9.0		7.3	10.1		15.7	18.4		15.0	14.9	
Progression Factor	1.22	1.16		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	1.2		0.1	2.5		1.9	7.6		1.8	0.5	
Delay (s)	11.0	11.7		7.4	12.5		17.6	26.0		16.8	15.4	
Level of Service	B	B		A	B		B	C		B	B	
Approach Delay (s)		11.6			12.4			24.2			15.7	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

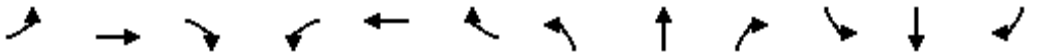


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	130	10	20	230	10	10	10	20	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.2	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.91			0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)	1770	1796		1805	1889		1805	1709			1750	
Flt Permitted	0.48	1.00		0.66	1.00		0.73	1.00			0.94	
Satd. Flow (perm)	899	1796		1255	1889		1394	1709			1678	
Peak-hour factor, PHF	0.85	0.92	0.92	0.66	0.66	0.85	1.00	0.85	1.00	0.85	0.85	0.85
Adj. Flow (vph)	12	141	11	30	348	12	10	12	20	12	12	12
RTOR Reduction (vph)	0	5	0	0	2	0	0	13	0	0	8	0
Lane Group Flow (vph)	12	148	0	30	358	0	10	19	0	0	28	0
Heavy Vehicles (%)	2%	5%	0%	0%	0%	2%	0%	2%	0%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			2			6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)	30.0	30.0		30.0	30.0		22.0	22.0			21.8	
Effective Green, g (s)	30.0	30.0		30.0	30.0		22.0	22.0			21.8	
Actuated g/C Ratio	0.50	0.50		0.50	0.50		0.37	0.37			0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.2	
Lane Grp Cap (vph)	449	898		627	944		511	626			609	
v/s Ratio Prot		0.08			c0.19			0.01				
v/s Ratio Perm	0.01			0.02			0.01				c0.02	
v/c Ratio	0.03	0.16		0.05	0.38		0.02	0.03			0.05	
Uniform Delay, d1	7.6	8.2		7.7	9.3		12.1	12.2			12.4	
Progression Factor	1.00	1.00		1.26	1.23		1.00	1.00			1.00	
Incremental Delay, d2	0.1	0.4		0.1	1.1		0.1	0.1			0.1	
Delay (s)	7.7	8.6		9.8	12.6		12.2	12.3			12.5	
Level of Service	A	A		A	B		B	B			B	
Approach Delay (s)		8.5			12.3			12.2			12.5	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

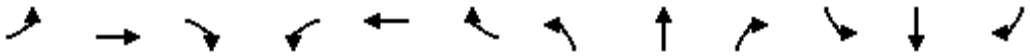
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	180	20	30	380	150	20	100	20	30	80	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.96			0.98			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	1835		1770	1784			1814			1751	
Flt Permitted	0.18	1.00		0.60	1.00			0.95			0.94	
Satd. Flow (perm)	337	1835		1117	1784			1729			1655	
Peak-hour factor, PHF	0.82	0.82	0.82	0.83	0.83	0.83	0.84	0.84	0.84	0.93	0.93	0.93
Adj. Flow (vph)	24	220	24	36	458	181	24	119	24	32	86	75
RTOR Reduction (vph)	0	6	0	0	23	0	0	10	0	0	38	0
Lane Group Flow (vph)	24	238	0	36	616	0	0	157	0	0	155	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	24.8	24.8		24.8	24.8			24.8			24.8	
Effective Green, g (s)	24.8	24.8		24.8	24.8			24.8			24.8	
Actuated g/C Ratio	0.41	0.41		0.41	0.41			0.41			0.41	
Clearance Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	139	758		461	737			714			684	
v/s Ratio Prot		0.13			c0.35							
v/s Ratio Perm	0.07			0.03				0.09			c0.09	
v/c Ratio	0.17	0.31		0.08	0.84			0.22			0.23	
Uniform Delay, d1	11.1	11.9		10.7	15.8			11.4			11.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	2.7	1.1		0.3	10.8			0.7			0.8	
Delay (s)	13.8	12.9		11.0	26.6			12.1			12.2	
Level of Service	B	B		B	C			B			B	
Approach Delay (s)		13.0			25.7			12.1			12.2	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	450	160	120	850	10	230	290	220	10	200	210
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	4.0		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	1.00		1.00	0.94		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3400		1770	3533		1770	1742		1770	1720	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3400		1770	3533		1770	1742		1770	1720	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	106	529	188	141	1000	12	271	341	259	12	235	247
RTOR Reduction (vph)	0	40	0	0	1	0	0	27	0	0	40	0
Lane Group Flow (vph)	106	677	0	141	1011	0	271	573	0	12	442	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	6.7	22.5		8.7	25.0		15.2	42.0		1.2	28.0	
Effective Green, g (s)	6.7	22.5		8.7	25.0		15.2	42.0		1.2	28.0	
Actuated g/C Ratio	0.07	0.24		0.09	0.27		0.16	0.45		0.01	0.30	
Clearance Time (s)	4.5	4.5		4.5	4.0		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	128	827		166	955		291	791		22	521	
v/s Ratio Prot	0.06	0.20		c0.08	c0.29		c0.15	0.33		0.01	c0.26	
v/s Ratio Perm												
v/c Ratio	0.83	0.82		0.85	1.06		0.93	0.72		0.55	0.85	
Uniform Delay, d1	42.3	33.0		41.2	33.7		38.1	20.5		45.3	30.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	33.6	6.3		31.2	46.0		34.9	3.3		24.9	12.1	
Delay (s)	75.9	39.4		72.4	79.7		73.0	23.8		70.2	42.3	
Level of Service	E	D		E	E		E	C		E	D	
Approach Delay (s)		44.1			78.8			39.1			43.0	
Approach LOS		D			E			D			D	

Intersection Summary			
HCM 2000 Control Delay	54.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	92.4	Sum of lost time (s)	18.0
Intersection Capacity Utilization	79.5%	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)	10	800	30	10	660	20	60	80	10	10	20	10
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	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.99			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1770	3520		1770	3523			1809			1778	
Flt Permitted	0.33	1.00		0.25	1.00			0.86			0.91	
Satd. Flow (perm)	607	3520		468	3523			1586			1643	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	12	941	35	12	776	24	71	94	12	12	24	12
RTOR Reduction (vph)	0	3	0	0	2	0	0	4	0	0	9	0
Lane Group Flow (vph)	12	973	0	12	798	0	0	173	0	0	39	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	21.8	21.8		21.8	21.8			9.9			9.9	
Effective Green, g (s)	21.8	21.8		21.8	21.8			9.9			9.9	
Actuated g/C Ratio	0.55	0.55		0.55	0.55			0.25			0.25	
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)	333	1932		256	1934			395			409	
v/s Ratio Prot		c0.28			0.23							
v/s Ratio Perm	0.02			0.03				c0.11			0.02	
v/c Ratio	0.04	0.50		0.05	0.41			0.44			0.10	
Uniform Delay, d1	4.1	5.6		4.1	5.2			12.6			11.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	0.2		0.1	0.1			0.8			0.1	
Delay (s)	4.2	5.8		4.2	5.4			13.3			11.6	
Level of Service	A	A		A	A			B			B	
Approach Delay (s)		5.8			5.3			13.3			11.6	
Approach LOS		A			A			B			B	

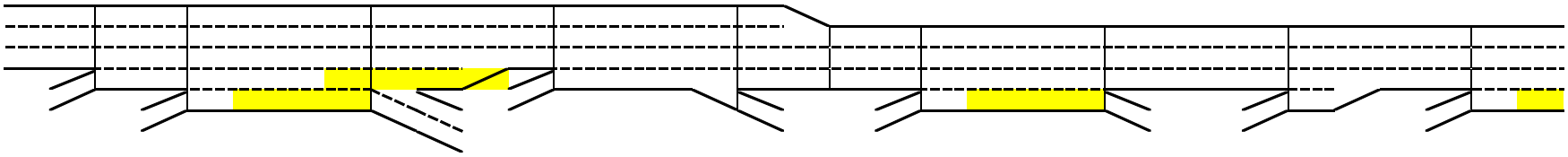
Intersection Summary			
HCM 2000 Control Delay	6.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	39.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	630	10	10	520	100	10	10	10	10	10	30
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	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	1.00		1.00	0.98			0.95			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1770	3531		1770	3453			1750			1696	
Flt Permitted	0.37	1.00		0.37	1.00			0.87			0.92	
Satd. Flow (perm)	697	3531		682	3453			1540			1576	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	35	741	12	12	612	118	12	12	12	12	12	35
RTOR Reduction (vph)	0	1	0	0	16	0	0	10	0	0	31	0
Lane Group Flow (vph)	35	752	0	12	714	0	0	26	0	0	28	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	17.1	17.1		17.1	17.1			3.7			3.7	
Effective Green, g (s)	17.1	17.1		17.1	17.1			3.7			3.7	
Actuated g/C Ratio	0.59	0.59		0.59	0.59			0.13			0.13	
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)	413	2096		404	2050			197			202	
v/s Ratio Prot		c0.21			0.21							
v/s Ratio Perm	0.05			0.02				0.02			c0.02	
v/c Ratio	0.08	0.36		0.03	0.35			0.13			0.14	
Uniform Delay, d1	2.5	3.0		2.4	3.0			11.1			11.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.1	0.1		0.0	0.1			0.3			0.3	
Delay (s)	2.6	3.1		2.4	3.1			11.4			11.5	
Level of Service	A	A		A	A			B			B	
Approach Delay (s)		3.1			3.1			11.4			11.5	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	3.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	28.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	34.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

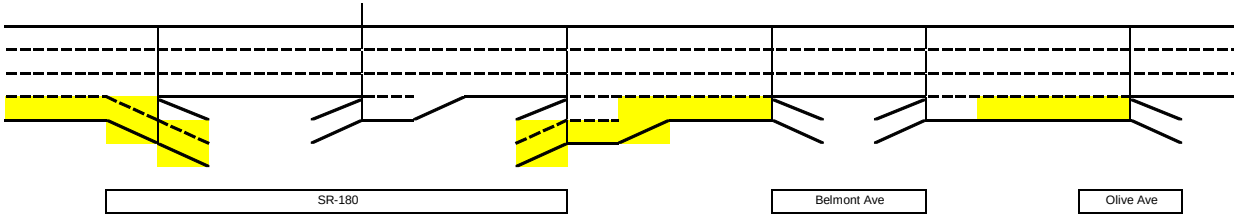
APPENDIX E-2:
TECHNICAL CALCULATIONS –
EXISTING PLUS PROJECT CONDITIONS
FREEWAY LOS

Fresno Downtown Plans
Existing Plus Project Conditions with Mitigation
SR-99 Northbound



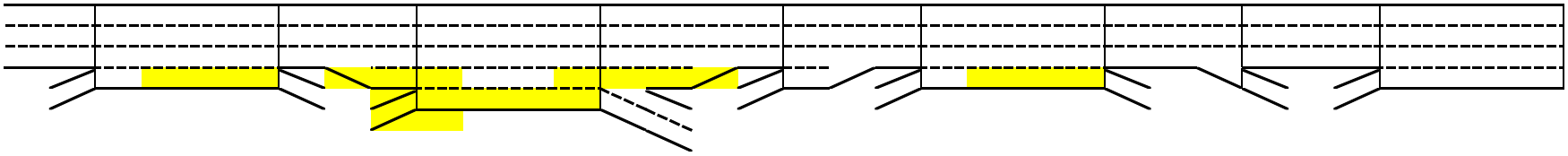
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Fresno Downtown Pl
Existing Plus Project
SR-99 Northbound



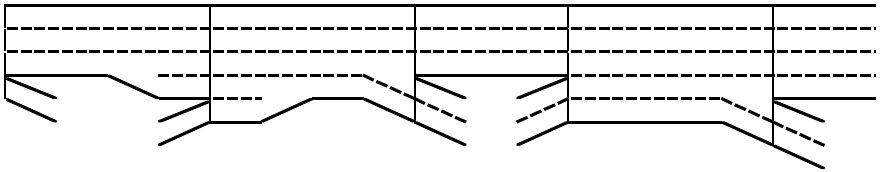
Input Data																				
Number		9						11				12						14		
Type		Weave						Merge				Weave						Weave		
Length		1,580			1,810			1,900				1,890			1,545			1,040		
Mainline Volume	AM	3,050			2,320			2,320				3,380			4,800			4,800		
	PM	4,500			3,990			3,990				4,830			6,560			6,560		
Ramp Volume	AM		1,460					1,060				2,290	870					150	430	
	PM		1,870					840				2,180	450					380	320	
Operations Analysis		**AM**	**PM**					**AM**	**PM**			**AM**	**PM**					**AM**	**PM**	
Basic Section (HCM 2010)																				
Volume		3,780	5,860									5,670	7,010					4,950	6,940	
PHF		0.87	0.95									0.88	0.97					0.88	0.97	
Lanes		4	4									4	4					4	4	
Terrain		Level	Level									Level	Level					Level	Level	
Truck/Bus %		11%	6%									12%	5%					12%	5%	
RV %		1%	1%									1%	1%					1%	1%	
Population Factor		1.00	1.00									1.00	1.00					1.00	1.00	
Free Flow Speed		65	65									65	65					65	65	
Speed		65.0	64.9									64.5	63.4					65.0	63.6	
V/C Ratio		0.49	0.68									0.73	0.79					0.64	0.78	
Density		**17.7**	**24.5**									**26.5**	**29.3**					**23.0**	**28.9**	
Level of Service		**B**	**C**									**D**	**D**					**C**	**D**	
Ramp Junction (HCM 2010)																				
Mainline Lanes								3	3											
Mainline Free Flow Speed								65	65											
Mainline Volume								2,320	3,990											
Mainline PHF								0.87	0.96											
Mainline Terrain								Level	Level											
Mainline Truck/Bus %								11%	6%											
Mainline RV %								1%	1%											
Mainline Population Factor								1.00	1.00											
Ramp Type								Right	Right											
Ramp Lanes								1	1											
Ramp Free Flow Speed								25	25											
Ramp Volume								1,060	840											
Accel/Decel Length								350	350											
Ramp PHF								0.84	0.95											
Ramp Terrain								Level	Level											
Ramp Truck/Bus %								2%	2%											
Ramp RV %								0%	0%											
Ramp Population Factor								1.00	1.00											
Speed								58.0	56.9											
V/C Ratio								0.67	0.74											
Density								**25.6**	**29.5**											
Level of Service								**C**	**D**											
Weave (Leisch Method)																				
Entering Lanes		3	3									3	3					3	3	
Ramp to Ramp Volume %		56%	47%									34%	19%					8%	5%	
On to ML Truck %		8%	2%									6%	5%					16%	6%	
ML to Off Truck %		2%	2%									13%	8%					15%	7%	
Balanced Weave Section?		Y	Y									Y	Y					N	N	
Service Volume		1,141	1,798									1,555	1,824					1,318	1,821	
V/C Ratio		0.60	0.95									0.82	0.96					0.69	0.96	
Level of Service		**C**	**E**									**D**	**E**					**C**	**E**	

Fresno Downtown Plans
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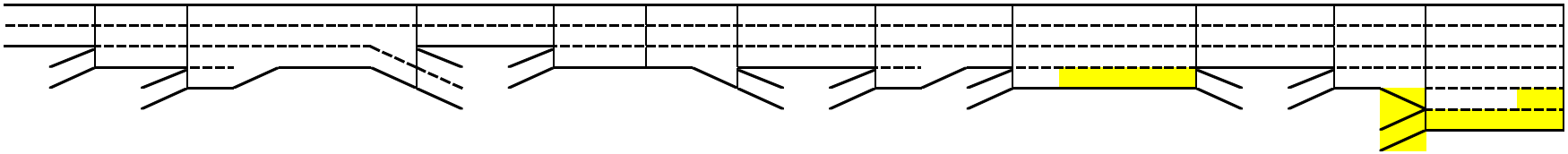
Input Data																								
Number		51				53				54				55				57				58		
Type		Weave				Weave				Merge				Weave				Diverge				Weave		
Length		1,195		1,950		1,510		2,145		1,020				2,370				1,540		1,935		725		
Mainline Volume	AM	6,610		6,950		6,950		4,130		4,130				5,350				4,450		3,510		3,510		
	PM	4,780		5,140		5,140		3,090		3,090				4,000				3,300		2,620		2,620		
Ramp Volume	AM	530	190			520	3,340			1,220				370	1,270			940				480	1,490	
	PM	540	180			830	2,880			910				200	900			680				990	880	
Operations Analysis		**AM**	**PM**			**AM**	**PM**			**AM**	**PM**			**AM**	**PM**			**AM**	**PM**			**AM**	**PM**	
Basic Section (HCM 2010)																								
Volume		6,610	4,780			7,470	5,970							5,720	4,200							3,990	3,610	
PHF		0.94	0.91			0.94	0.91							0.94	0.91							0.94	0.91	
Lanes		4	4			5	5							4	4							4	4	
Terrain		Level	Level			Level	Level							Level	Level							Level	Level	
Truck/Bus %		8%	11%			8%	11%							8%	10%							8%	10%	
RV %		1%	1%			1%	1%							1%	1%							1%	1%	
Population Factor		1.00	1.00			1.00	1.00							1.00	1.00							1.00	1.00	
Free Flow Speed		65	65			65	65							65	65							65	65	
Speed		63.6	65.0			64.7	65.0							64.9	65.0							65.0	65.0	
V/C Ratio		0.78	0.59			0.70	0.59							0.67	0.52							0.47	0.44	
Density		**28.8**	**21.4**			**25.6**	**21.3**							**24.4**	**18.7**							**17.0**	**16.1**	
Level of Service		**D**	**C**			**C**	**C**							**C**	**C**							**B**	**B**	
Ramp Junction (HCM 2010)															Merge	Diverge								
Mainline Lanes										3	3				3	4		3	3					
Mainline Free Flow Speed										65	65				65	65		65	65					
Mainline Volume										4,130	3,090				4,000	4,200		4,450	3,300					
Mainline PHF										0.94	0.91				0.91	0.91		0.94	0.91					
Mainline Terrain										Level	Level				Level	Level		Level	Level					
Mainline Truck/Bus %										8%	10%				10%	10%		8%	10%					
Mainline RV %										1%	1%				1%	1%		1%	1%					
Mainline Population Factor										1.00	1.00				1.00	1.00		1.00	1.00					
Ramp Type										Right	Right				Right	Right		Right	Right					
Ramp Lanes										1	1				1	1		1	1					
Ramp Free Flow Speed										25	25				50	45		45	45					
Ramp Volume										1,220	910				200	900		940	680					
Accel/Decel Length										450	450				450	140		140	140					
Ramp PHF										0.90	0.87				0.80	0.90		0.76	0.89					
Ramp Terrain										Level	Level				Level	Level		Level	Level					
Ramp Truck/Bus %										5%	4%				10%	4%		2%	4%					
Ramp RV %										0%	0%				0%	0%		0%	0%					
Ramp Population Factor										1.00	1.00				1.00	1.00		1.00	1.00					
Speed										54.9	57.6				57.7	59.7		59.2	60.1					
V/C Ratio										0.89	0.69				0.72	0.75		0.77	0.61					
Density										**33.9**	**26.9**				**28.5**	**31.4**		**32.1**	**26.1**					
Level of Service										**D**	**C**				**D**	**D**		**D**	**C**					
Weave (Leisch Method)																								
Entering Lanes		3	3			4	4							3	3							3	3	
Ramp to Ramp Volume %		3%	2%			42%	50%							27%	17%							31%	15%	
On to ML Truck %		12%	8%			17%	4%							7%	10%							5%	7%	
ML to Off Truck %		7%	13%			5%	3%							2%	4%							2%	4%	
Balanced Weave Section?		N	N			Y	Y							N	N							N	N	
Service Volume		1,727	1,282			1,692	1,381							1,555	-							1,212	1,323	
V/C Ratio		0.91	0.67			0.89	0.73							0.82	-							0.64	0.70	
Level of Service		**E**	**C**			**E**	**C**							**D**	**-**							**C**	**C**	

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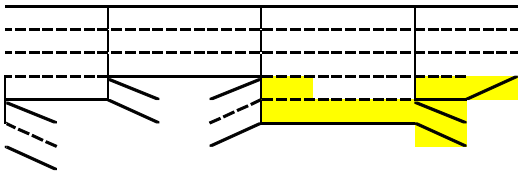


Input Data												
Number					59				60			
Type					Weave				Weave			
Length		1,010	1,335		1,315		2,610		1,850			
Mainline Volume	AM	2,500			2,500		2,070		2,070			
	PM	2,730			2,730		2,620		2,620			
Ramp Volume	AM				170	600			2,260	560		
	PM				420	530			2,900	480		
Operations Analysis					**AM**	**PM**			**AM**	**PM**		
Basic Section (HCM 2010)												
Volume					2,670	3,150			4,330	5,520		
PHF					0.94	0.91			0.94	0.90		
Lanes					4	4			5	5		
Terrain					Level	Level			Level	Level		
Truck/Bus %					8%	9%			8%	8%		
RV %					1%	1%			1%	1%		
Population Factor					1.00	1.00			1.00	1.00		
Free Flow Speed					65	65			65	65		
Speed					65.0	65.0			65.0	65.0		
V/C Ratio					0.31	0.39			0.41	0.54		
Density					**11.4**	**13.9**			**14.8**	**19.7**		
Level of Service					**B**	**B**			**B**	**C**		
Ramp Junction (HCM 2010)										Merge	Diverge	
Mainline Lanes										3	4	
Mainline Free Flow Speed										65	65	
Mainline Volume										2,620	5,520	
Mainline PHF										0.90	0.90	
Mainline Terrain										Level	Level	
Mainline Truck/Bus %										8%	8%	
Mainline RV %										1%	1%	
Mainline Population Factor										1.00	1.00	
Ramp Type										Major	Right	
Ramp Lanes										2	2	
Ramp Free Flow Speed										55	55	
Ramp Volume										2,900	480	
Accel/Decel Length										1,500	140	
Ramp PHF										0.87	0.85	
Ramp Terrain										Level	Level	
Ramp Truck/Bus %										7%	3%	
Ramp RV %										0%	0%	
Ramp Population Factor										1.00	1.00	
Speed										51.5	64.4	
V/C Ratio										0.73	0.83	
Density										**N/A**	**7.1**	
Level of Service										**-**	**A**	
Weave (Leisch Method)												
Entering Lanes					4	4			3	3		
Ramp to Ramp Volume %					17%	17%			28%	16%		
On to ML Truck %					5%	7%			3%	2%		
ML to Off Truck %					5%	3%			2%	4%		
Balanced Weave Section?					Y	Y			Y	Y		
Service Volume					698	859			879	-		
V/C Ratio					0.37	0.45			0.46	-		
Level of Service					**A**	**B**			**B**	**-**		

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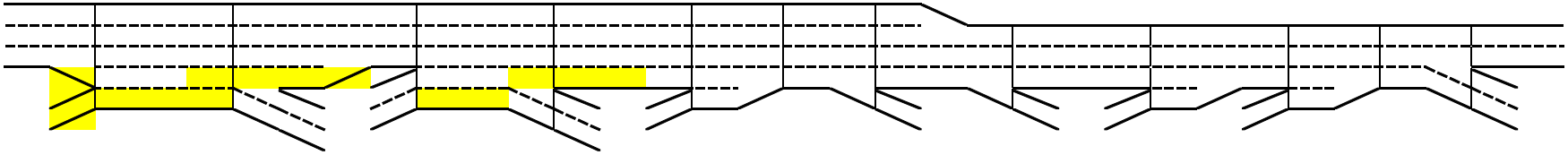


Input Data																															
Number			101			102					103		104			105			106				108			109				
Type			Merge			Weave					Merge		Diverge			Merge			Weave				Merge			Weave				
Length			815			1,915			2,290		1,020		1,020		1,650	1,405			2,740			1,170	1,070			1,720				
Mainline Volume	AM		1,330			1,660			1,290		1,290		4,240		3,850	3,850			3,970			3,950	3,950			4,200				
	PM		1,480			1,890			1,630		1,630		4,170		3,970	3,970			4,700			5,410	5,410			6,240				
Ramp Volume	AM		330		230		600				2,950		390			120			410	430			250		920		1,620			
	PM		410		470		730				2,540		200			730			1,150	440			830		1,420		2,930			
Operations Analysis		**AM**	**PM**		**AM**	**PM**				**AM**	**PM**	**AM**	**PM**			**AM**	**PM**		**AM**	**PM**			**AM**	**PM**		**AM**	**PM**			
Basic Section (HCM 2010)																															
Volume					1,890	2,360						4,240	4,170						4,380	5,850						5,120	7,660			
PHF					0.83	0.96						0.83	0.96						0.83	0.96						0.83	0.96			
Lanes					3	3						3	3						4	4						6	6			
Terrain					Level	Level						Level	Level						Level	Level						Level	Level			
Truck/Bus %					3%	2%						3%	2%						3%	2%						3%	2%			
RV %					0%	0%						0%	0%						0%	0%						0%	0%			
Population Factor					1.00	1.00						1.00	1.00						1.00	1.00						1.00	1.00			
Free Flow Speed					65	65						65	65						65	65						65	65			
Speed					65.0	65.0						64.4	65.0						65.0	65.0						65.0	65.0			
V/C Ratio					0.33	0.35						0.74	0.62						0.57	0.65						0.44	0.57			
Density					**11.9**	**12.7**						**26.8**	**22.5**						**20.6**	**23.7**						**16.1**	**20.7**			
Level of Service					**B**	**B**						**D**	**C**						**C**	**C**						**B**	**C**			
Ramp Junction (HCM 2010)					Merge	Diverge													Merge	Diverge										
Mainline Lanes		2	2		3	3				2	2	3	3			3	3		3	4			3	3						
Mainline Free Flow Speed		65	65		65	65				65	65	65	65			65	65		65	65			65	65						
Mainline Volume		1,330	1,480		1,660	1,890				1,290	1,630	4,240	4,170			3,850	3,970		3,970	4,380			3,950	5,410						
Mainline PHF		0.83	0.96		0.83	0.96				0.83	0.96	0.83	0.96			0.83	0.96		0.83	0.83			0.83	0.96						
Mainline Terrain		Level	Level		Level	Level				Level	Level	Level	Level			Level	Level		Level	Level			Level	Level						
Mainline Truck/Bus %		3%	2%		3%	2%				3%	2%	3%	2%			3%	2%		3%	3%			3%	2%						
Mainline RV %		0%	0%		0%	0%				0%	0%	0%	0%			0%	0%		0%	0%			0%	0%						
Mainline Population 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			1.00	1.00						
Ramp Type		Right	Right		Right	Major				Major	Major	Right	Right			Right	Right		Right	Right			Right	Right						
Ramp Lanes		1	1		1	2				2	2	1	1			1	1		1	1			1	1						
Ramp Free Flow Speed		25	25		45	55				55	55	45	45			45	45		45	45			25	25						
Ramp Volume		330	410		230	600				2,950	2,540	390	200			120	730		410	430			250	830						
Accel/Decel Length		815	815		400	140				375	375	140	140			250	250		350	140			1,070	1,070						
Ramp PHF		0.85	0.90		0.85	0.92				0.83	0.84	0.79	0.94			0.77	0.74		0.79	0.75			0.70	0.76						
Ramp Terrain		Level	Level		Level	Level				Level	Level	Level	Level			Level	Level		Level	Level			Level	Level						
Ramp Truck/Bus %		4%	2%		4%	15%				4%	2%	4%	2%			4%	2%		4%	4%			4%	2%						
Ramp RV %		0%	0%		0%	0%				0%	0%	0%	0%			0%	0%		0%	0%			0%	0%						
Ramp Population 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			1.00	1.00						
Speed		57.9	57.9		60.0	62.8				47.1	53.0	60.6	61.2			57.8	57.0		57.0	62.8			57.7	52.8						
V/C Ratio		0.44	0.44		0.33	0.61				0.78	0.68	0.76	0.66			0.69	0.75		0.76	0.61			0.72	0.99						
Density		**16.0**	**15.9**		**14.3**	**25.9**				**N/A**	**N/A**	**31.8**	**27.8**			**26.5**	**30.3**		**30.1**	**25.9**			**24.3**	**33.8**						
Level of Service		**B**	**B**		**B**	**C**				**-**	**-**	**D**	**C**			**C**	**D**		**D**	**C**			**C**	**D**						
Weave (Leisch Method)																															
Entering Lanes					3	3													3	3						5	5			
Ramp to Ramp Volume %					27%	26%													4%	4%						23%	37%			
On to ML Truck %					4%	2%													4%	2%						4%	2%			
ML to Off Truck %					15%	8%													4%	2%						8%	2%			
Balanced Weave Section?					Y	Y													N	N						N	N			
Service Volume					-	795													-	1,509						1,072	1,591			
V/C Ratio					-	0.42													-	0.79						0.56	0.84			
Level of Service					**-**	**A**													**-**	**D**						**B**	**D**			

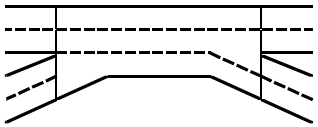


SR-180					McKinley Ave
110			111		
Diverge			Weave		
820		2,245	1,550		
3,500		3,190	3,190		
4,730		4,290	4,290		
310			3,620	790	
440			3,290	1,180	
AM	**PM**			**AM**	**PM**
				6,810	7,580
				0.83	0.96
				5	5
				Level	Level
				3%	2%
				0%	0%
				1.00	1.00
				65	65
				64.7	64.9
				0.71	0.68
				25.7	**24.6**
				C	**C**
4	4				
65	65				
3,500	4,730				
0.83	0.96				
Level	Level				
3%	2%				
0%	0%				
1.00	1.00				
Right	Right				
1	1				
25	25				
310	440				
820	820				
0.83	0.96				
Level	Level				
6%	2%				
0%	0%				
1.00	1.00				
59.8	59.4				
0.55	0.64				
14.8	**17.8**				
B	**B**				
				3	3
				16%	18%
				2%	2%
				4%	2%
				N	N
				1,468	1,769
				0.77	0.93
				D	**E**

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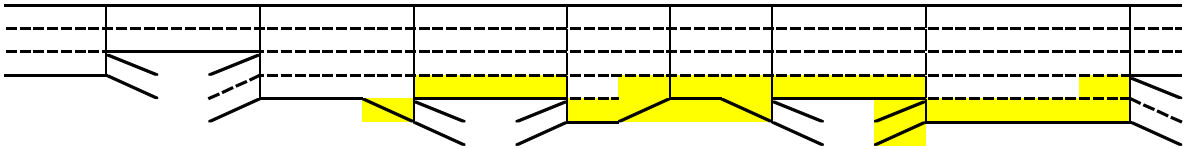
Input Data																							
Number			151				152			153		154		155			156		157		158		
Type			Weave				Weave			Merge		Diverge		Diverge			Merge		Merge		Diverge		
Length			1,780		4,150		1,485		2,295	775		775		1,650		1,400	410		1,175		1,175		2,490
Mainline Volume	AM		6,620		4,170		4,170		5,310	5,310		5,620		4,320		3,370	3,370		3,410		3,570		1,310
	PM		5,760		3,090		3,090		3,870	3,870		4,340		3,890		3,500	3,500		3,680		4,180		1,280
Ramp Volume	AM	660		3,110		3,500		2,360		310		1,300		950			40		160		2,260		
	PM	720		3,390		2,020		1,240		470		450		390			180		500		2,900		
Operations Analysis			**AM**	**PM**			**AM**	**PM**		**AM**	**PM**	**AM**	**PM**	**AM**	**PM**		**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	
Basic Section (HCM 2010)																							
Volume			7,280	6,480			7,670	5,110				5,620	4,340								3,570	4,180	
PHF			0.91	0.98			0.91	0.98				0.91	0.98								0.91	0.98	
Lanes			5	5			5	5				4	4								3	3	
Terrain			Level	Level			Level	Level				Level	Level								Level	Level	
Truck/Bus %			3%	2%			3%	2%				3%	2%								3%	2%	
RV %			0%	0%			0%	0%				0%	0%								0%	0%	
Population Factor			1.00	1.00			1.00	1.00				1.00	1.00								1.00	1.00	
Free Flow Speed			65	65			65	65				65	65								65	65	
Speed			64.8	65.0			64.5	65.0				64.9	65.0								65.0	65.0	
V/C Ratio			0.69	0.57			0.73	0.45				0.67	0.48								0.56	0.61	
Density			**25.1**	**20.5**			**26.5**	**16.2**				**24.1**	**17.2**								**20.4**	**22.1**	
Level of Service			**C**	**C**			**D**	**B**				**C**	**B**								**C**	**C**	
Ramp Junction (HCM 2010)																							
Mainline Lanes										4	4	4	4	3	3		3	3	3	3	3	3	
Mainline Free Flow Speed										65	65	65	65	65	65		65	65	65	65	65	65	
Mainline Volume										5,310	3,870	5,620	4,340	4,320	3,890		3,370	3,500	3,410	3,680	3,570	4,180	
Mainline PHF										0.91	0.98	0.91	0.98	0.91	0.98		0.91	0.98	0.91	0.98	0.91	0.98	
Mainline Terrain										Level	Level	Level	Level	Level	Level		Level	Level	Level	Level	Level	Level	
Mainline Truck/Bus %										3%	2%	3%	2%	3%	2%		3%	2%	3%	2%	3%	2%	
Mainline RV %										0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	
Mainline Population 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	
Ramp Type										Right	Right	Right	Right	Right	Right		Right	Right	Right	Right	Major	Major	
Ramp Lanes										1	1	1	1	1	1		1	1	1	1	2	2	
Ramp Free Flow Speed										45	45	45	45	45	45		45	45	25	25	50	50	
Ramp Volume										310	470	1,300	450	950	390		40	180	160	500	2,260	2,900	
Accel/Decel Length										350	350	140	140	140	140		350	350	700	700	1,175	1,175	
Ramp PHF										0.94	0.88	0.94	0.81	0.73	0.80		0.65	0.74	0.64	0.73	0.88	0.82	
Ramp Terrain										Level	Level	Level	Level	Level	Level		Level	Level	Level	Level	Level	Level	
Ramp Truck/Bus %										3%	2%	2%	4%	3%	2%		3%	2%	3%	2%	3%	2%	
Ramp RV %										0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	
Ramp Population 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	
Speed										58.9	60.1	60.8	63.1	59.1	60.7		58.9	58.9	58.7	58.2	56.8	53.5	
V/C Ratio										0.67	0.48	0.80	0.52	0.76	0.62		0.54	0.55	0.58	0.64	0.73	0.89	
Density										**24.2**	**19.7**	**33.3**	**22.5**	**31.8**	**26.5**		**21.0**	**21.6**	**20.7**	**23.8**	**14.5**	**15.7**	
Level of Service										**C**	**B**	**D**	**C**	**D**	**C**		**C**	**C**	**C**	**C**	**B**	**B**	
Weave (Leisch Method)																							
Entering Lanes			4	4			3	3															
Ramp to Ramp Volume %			35%	42%			42%	38%															
On to ML Truck %			3%	2%			2%	3%															
ML to Off Truck %			3%	2%			3%	2%															
Balanced Weave Section?			Y	Y			Y	Y															
Service Volume			1,652	1,478			1,906	1,172															
V/C Ratio			0.87	0.78			1.00	0.62															
Level of Service			**E**	**D**			**F**	**C**															



Jensen Ave

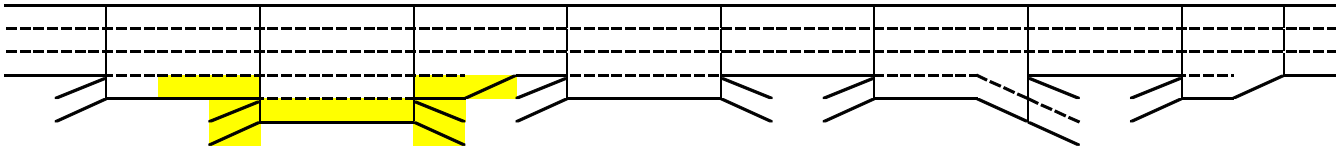
	159
	Weave
	1,520
	1,310
	1,280
600	870
530	540
AM	**PM**
1,910	1,810
0.91	0.98
3	3
Level	Level
3%	2%
0%	0%
1.00	1.00
65	65
65.0	65.0
0.30	0.26
10.9	**9.6**
A	**A**

Fresno Downtown Plans
Existing Plus Project Conditions with Mitigation
SR-180 Eastbound



			SR-99			Fulton St / Van Ness Ave				Abby St			SR-41	
Input Data														
Number		201			202			203	204			205		
Type		Diverge			Weave			Merge	Diverge			Weave		
Length		1,500	4,070		1,380		2,575	830	830	1,245		1,600		
Mainline Volume	AM	3,000	1,570		1,570		4,990	4,990	5,730	5,290		5,290		
	PM	2,160	1,120		1,120		4,670	4,670	6,070	5,730		5,730		
Ramp Volume	AM	1,430		4,020		600		740	440			480	2,170	
	PM	1,040		3,920		370		1,400	340			790	2,000	
Operations Analysis		**AM**	**PM**		**AM**	**PM**		**AM**	**PM**			**AM**	**PM**	
Basic Section (HCM 2010)														
Volume					5,590	5,040		5,730	6,070			5,770	6,520	
PHF					0.84	0.93		0.81	0.95			0.78	0.97	
Lanes					4	4		4	4			5	5	
Terrain					Level	Level		Level	Level			Level	Level	
Truck/Bus %					3%	2%		3%	2%			3%	2%	
RV %					0%	0%		0%	0%			0%	0%	
Population Factor					1.00	1.00		1.00	1.00			1.00	1.00	
Free Flow Speed					65	65		65	65			65	65	
Speed					64.6	65.0		63.9	64.8			65.0	65.0	
V/C Ratio					0.72	0.58		0.76	0.69			0.64	0.58	
Density					**26.1**	**21.0**		**28.1**	**24.9**			**23.1**	**20.9**	
Level of Service					**D**	**C**		**D**	**C**			**C**	**C**	
Ramp Junction (HCM 2010)														
Mainline Lanes		3	3					4	4	4	4			
Mainline Free Flow Speed		65	65					65	65	65	65			
Mainline Volume		3,000	2,160					4,990	4,670	5,730	6,070			
Mainline PHF		0.95	0.95					0.81	0.95	0.81	0.95			
Mainline Terrain		Level	Level					Level	Level	Level	Level			
Mainline Truck/Bus %		3%	2%					3%	2%	3%	2%			
Mainline RV %		0%	0%					0%	0%	0%	0%			
Mainline Population Factor		1.00	1.00					1.00	1.00	1.00	1.00			
Ramp Type		Right	Right					Right	Right	Right	Right			
Ramp Lanes		1	1					1	1	1	1			
Ramp Free Flow Speed		50	50					45	45	25	25			
Ramp Volume		1,430	1,040					740	1,400	440	340			
Accel/Decel Length		1,500	1,500					450	450	140	140			
Ramp PHF		0.84	0.92					0.91	0.82	0.73	0.82			
Ramp Terrain		Level	Level					Level	Level	Level	Level			
Ramp Truck/Bus %		3%	2%					3%	2%	3%	2%			
Ramp RV %		0%	0%					0%	0%	0%	0%			
Ramp Population Factor		1.00	1.00					1.00	1.00	1.00	1.00			
Speed		58.4	59.3					58.1	57.6	58.5	59.2			
V/C Ratio		0.82	0.54					0.75	0.83	0.93	0.86			
Density		**13.2**	**7.0**					**28.2**	**30.9**	**32.9**	**29.2**			
Level of Service		**B**	**A**					**D**	**D**	**D**	**D**			
Weave (Leisch Method)														
Entering Lanes					2	2						4	4	
Ramp to Ramp Volume %					14%	9%						47%	39%	
On to ML Truck %					2%	2%						3%	2%	
ML to Off Truck %					3%	2%						6%	2%	
Balanced Weave Section?					Y	Y						N	N	
Service Volume					1,437	1,281						1,275	1,499	
V/C Ratio					0.76	0.67						0.67	0.79	
Level of Service					**D**	**D**						**C**	**D**	

Fresno Downtown Plans
Existing Plus Project Conditions with Mitigation
SR-180 Westbound



Input Data																			
Number		251		252			253			254			255						
Type		Merge		Weave			Weave			Weave			Merge						
Length		705		2,840		1,240	1,730		1,370	2,860		4,160	1,500						
Mainline Volume	AM	4,210		4,520		5,000	5,000		4,070	4,070		730	730						
	PM	3,130		3,570		4,330	4,330		4,050	4,050		1,180	1,180						
Ramp Volume	AM	310		1,550	1,070		300	1,230		170	3,510		780						
	PM	440		1,420	660		510	790		220	3,090		830						
Operations Analysis		**AM**	**PM**		**AM**	**PM**		**AM**	**PM**		**AM**	**PM**		**AM**	**PM**				
Basic Section (HCM 2010)																			
Volume					6,070	4,990		5,300	4,840		4,240	4,270							
PHF					0.86	0.96		0.88	0.95		0.90	0.94							
Lanes					5	5		4	4		4	4							
Terrain					Level	Level		Level	Level		Level	Level							
Truck/Bus %					2%	4%		2%	4%		2%	4%							
RV %					0%	0%		0%	0%		0%	0%							
Population Factor					1.00	1.00		1.00	1.00		1.00	1.00							
Free Flow Speed					65	65		65	65		65	65							
Speed					65.0	65.0		65.0	65.0		65.0	65.0							
V/C Ratio					0.61	0.45		0.65	0.55		0.51	0.49							
Density					**21.9**	**16.3**		**23.4**	**20.0**		**18.3**	**17.8**							
Level of Service					**C**	**B**		**C**	**C**		**C**	**B**							
Ramp Junction (HCM 2010)																			
Mainline Lanes		3	3											3	3				
Mainline Free Flow Speed		65	65											65	65				
Mainline Volume		4,210	3,130											730	1,180				
Mainline PHF		0.86	0.96											0.91	0.93				
Mainline Terrain		Level	Level											Level	Level				
Mainline Truck/Bus %		2%	4%											2%	4%				
Mainline RV %		0%	0%											0%	0%				
Mainline Population Factor		1.00	1.00											1.00	1.00				
Ramp Type		Right	Right											Right	Right				
Ramp Lanes		1	1											1	1				
Ramp Free Flow Speed		50	50											50	50				
Ramp Volume		310	440											780	830				
Accel/Decel Length		705	705											450	450				
Ramp PHF		0.68	0.79											0.88	0.89				
Ramp Terrain		Level	Level											Level	Level				
Ramp Truck/Bus %		6%	2%											2%	2%				
Ramp RV %		0%	0%											0%	0%				
Ramp Population Factor		1.00	1.00											1.00	1.00				
Speed		57.6	59.4											59.5	59.6				
V/C Ratio		0.74	0.55											0.43	0.45				
Density		**27.5**	**20.7**											**12.9**	**15.5**				
Level of Service		**C**	**C**											**B**	**B**				
Weave (Leisch Method)																			
Entering Lanes					4	4		3	3		3	3							
Ramp to Ramp Volume %					19%	15%		9%	7%		66%	72%							
On to ML Truck %					3%	3%		2%	4%		2%	4%							
ML to Off Truck %					2%	4%		2%	4%		5%	5%							
Balanced Weave Section?					N	N		N	N		Y	Y							
Service Volume					1,384	1,064		1,471	1,338		1,100	1,120							
Service Volume					0.73	0.56		0.77	0.70		0.58	0.59							
Level of Service					**C**	**B**		**D**	**C**		**B**	**C**							

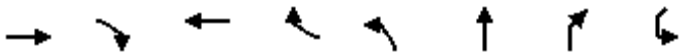
APPENDIX E-3:
TECHNICAL CALCULATIONS –
EXISTING PLUS PROJECT CONDITIONS
FREEWAY RAMP QUEUES

Lane Group	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	743	748	34	190	51
v/c Ratio	0.45	0.74	0.09	0.51	0.12
Control Delay	3.1	13.3	8.2	18.8	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.1	13.3	8.2	18.8	5.4
Queue Length 50th (ft)	13	57	2	36	0
Queue Length 95th (ft)	25	134	9	76	14
Internal Link Dist (ft)	740	270	212	971	
Turn Bay Length (ft)					50
Base Capacity (vph)	2124	1418	604	577	652
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	0.35	0.53	0.06	0.33	0.08

Intersection Summary

Lane Group	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	442	474	433	589
v/c Ratio	0.50	0.47	0.59	0.71
Control Delay	14.3	10.7	11.5	9.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	14.3	10.7	11.5	9.6
Queue Length 50th (ft)	36	28	55	34
Queue Length 95th (ft)	77	80	150	143
Internal Link Dist (ft)	270	750	806	
Turn Bay Length (ft)				325
Base Capacity (vph)	1847	1956	1223	1187
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.24	0.24	0.35	0.50

Intersection Summary



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SWL2
Lane Group Flow (vph)	417	194	301	60	92	329	26	15
v/c Ratio	0.53	0.12	0.38	0.09	0.12	0.42	0.03	0.03
Control Delay	15.5	0.2	13.3	6.0	10.7	13.7	0.1	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.5	0.2	13.3	6.0	10.7	13.7	0.1	10.0
Queue Length 50th (ft)	101	0	68	5	18	75	0	3
Queue Length 95th (ft)	126	0	108	20	34	105	0	9
Internal Link Dist (ft)	530		1070			390		
Turn Bay Length (ft)					150		40	
Base Capacity (vph)	783	1583	783	686	743	783	839	579
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.12	0.38	0.09	0.12	0.42	0.03	0.03

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	77	333	24	256	23	273	190	696	152
v/c Ratio	0.17	0.47	0.06	0.18	0.10	0.19	0.43	0.47	0.20
Control Delay	11.3	13.5	10.2	7.5	11.2	9.8	15.1	12.9	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.3	13.5	10.2	7.5	11.2	9.8	15.1	12.9	3.0
Queue Length 50th (ft)	15	70	4	18	4	25	42	82	0
Queue Length 95th (ft)	32	105	14	33	16	44	74	102	19
Internal Link Dist (ft)		1070		560		504		596	
Turn Bay Length (ft)			300				70		85
Base Capacity (vph)	457	712	376	1389	233	1414	446	1479	750
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	0.17	0.47	0.06	0.18	0.10	0.19	0.43	0.47	0.20

Intersection Summary



Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Group Flow (vph)	373	267	47	337	1000
v/c Ratio	0.71	0.48	0.26	0.61	0.51
Control Delay	29.7	14.2	16.1	18.7	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	29.7	14.2	16.1	18.7	10.7
Queue Length 50th (ft)	146	54	10	77	115
Queue Length 95th (ft)	162	74	m20	98	138
Internal Link Dist (ft)	277			340	540
Turn Bay Length (ft)		100	100		
Base Capacity (vph)	709	713	248	742	1977
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	3	0	0	105
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.53	0.38	0.19	0.45	0.53

Intersection Summary

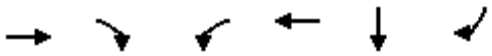
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	36	446	250	36	171	622	85
v/c Ratio	0.13	0.88	0.49	0.08	0.17	0.61	0.10
Control Delay	21.6	39.8	24.8	6.6	8.3	13.7	4.4
Queue Delay	0.0	0.0	0.0	0.0	2.3	53.7	0.8
Total Delay	21.6	39.8	24.8	6.6	10.6	67.4	5.2
Queue Length 50th (ft)	8	108	89	0	33	164	7
Queue Length 95th (ft)	m22	#280	142	16	55	222	21
Internal Link Dist (ft)		340	361			110	
Turn Bay Length (ft)	100			50			50
Base Capacity (vph)	279	507	507	460	981	1022	873
Starvation Cap Reductn	0	0	0	0	684	508	598
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.88	0.49	0.08	0.58	1.21	0.31

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	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	402	927	12	167	867	205
v/c Ratio	0.69	0.59	0.08	0.26	0.46	0.22
Control Delay	27.3	1.6	21.3	7.5	13.2	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	1.6	21.3	7.5	13.2	3.2
Queue Length 50th (ft)	150	0	4	57	104	0
Queue Length 95th (ft)	181	0	m6	39	211	32
Internal Link Dist (ft)	322			290	610	
Turn Bay Length (ft)		110	200			150
Base Capacity (vph)	724	1583	265	1096	1878	936
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	0.56	0.59	0.05	0.15	0.46	0.22

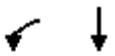
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	NBT
Lane Group Flow (vph)	486	1052
v/c Ratio	0.74	0.60
Control Delay	14.2	15.7
Queue Delay	0.4	0.0
Total Delay	14.6	15.7
Queue Length 50th (ft)	215	164
Queue Length 95th (ft)	24	203
Internal Link Dist (ft)	290	625
Turn Bay Length (ft)		
Base Capacity (vph)	809	1740
Starvation Cap Reductn	68	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.66	0.60

Intersection Summary



Lane Group	WBL	SBT
Lane Group Flow (vph)	288	1805
v/c Ratio	0.68	0.78
Control Delay	42.0	15.1
Queue Delay	0.2	0.0
Total Delay	42.2	15.1
Queue Length 50th (ft)	179	342
Queue Length 95th (ft)	166	453
Internal Link Dist (ft)	265	624
Turn Bay Length (ft)		
Base Capacity (vph)	730	2327
Starvation Cap Reductn	75	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.44	0.78

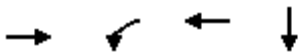
Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	13	215	229	386	565	402
v/c Ratio	0.08	0.54	0.57	0.72	0.23	0.33
Control Delay	19.3	25.9	36.9	19.1	6.5	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.7	1.0
Total Delay	19.3	25.9	36.9	19.1	7.2	2.7
Queue Length 50th (ft)	4	91	121	71	54	0
Queue Length 95th (ft)	m4	m86	125	73	108	36
Internal Link Dist (ft)		265	346		185	
Turn Bay Length (ft)	175			150		
Base Capacity (vph)	321	768	768	799	2424	1212
Starvation Cap Reductn	0	0	0	0	1463	549
Spillback Cap Reductn	0	0	32	0	128	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.28	0.31	0.48	0.59	0.61

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	434	156	260	1849
v/c Ratio	0.76	0.59	0.27	1.52
Control Delay	31.4	54.9	2.4	263.7
Queue Delay	0.0	0.0	0.0	0.5
Total Delay	31.4	54.9	2.4	264.2
Queue Length 50th (ft)	151	76	9	~640
Queue Length 95th (ft)	#307	104	15	#656
Internal Link Dist (ft)	400		250	176
Turn Bay Length (ft)		100		
Base Capacity (vph)	582	391	1069	1213
Starvation Cap Reductn	0	0	0	141
Spillback Cap Reductn	0	0	0	34
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.75	0.40	0.24	1.72

Intersection Summary

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

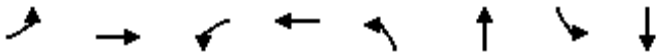
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	148	455	370	136	747	33
v/c Ratio	0.60	0.55	0.67	0.24	0.52	0.05
Control Delay	23.0	21.6	27.5	4.5	19.6	1.1
Queue Delay	0.0	1.2	0.0	0.0	0.0	0.0
Total Delay	23.0	22.8	27.5	4.5	19.6	1.1
Queue Length 50th (ft)	57	185	139	0	130	0
Queue Length 95th (ft)	m59	m191	177	25	214	5
Internal Link Dist (ft)		250	510		555	
Turn Bay Length (ft)	75			125		150
Base Capacity (vph)	316	1045	665	652	1437	689
Starvation Cap Reductn	0	365	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	0.47	0.67	0.56	0.21	0.52	0.05

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

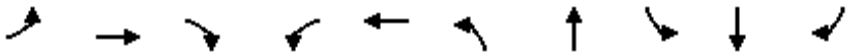


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	71	388	71	477	56	348	111	722
v/c Ratio	0.41	0.68	0.41	0.84	0.35	0.56	0.54	1.07
Control Delay	48.9	35.2	48.9	44.4	48.3	31.8	49.9	87.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.9	35.2	48.9	44.4	48.3	31.8	49.9	87.4
Queue Length 50th (ft)	40	190	40	250	32	174	63	~522
Queue Length 95th (ft)	84	317	83	#438	59	225	97	#564
Internal Link Dist (ft)		430		410		410		430
Turn Bay Length (ft)	200		190		100		100	
Base Capacity (vph)	339	661	339	662	339	661	339	673
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.59	0.21	0.72	0.17	0.53	0.33	1.07

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	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	84	277	145	130	359	225	524	103	718	103
v/c Ratio	0.47	0.64	0.31	0.59	0.69	0.78	0.43	0.53	0.76	0.21
Control Delay	48.5	38.0	9.0	49.1	35.2	55.8	25.6	48.6	37.2	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	48.5	38.0	9.0	49.1	35.2	55.8	25.6	48.6	37.2	7.0
Queue Length 50th (ft)	45	140	7	70	173	120	116	56	196	0
Queue Length 95th (ft)	90	217	45	138	295	#216	178	98	252	25
Internal Link Dist (ft)		420			420		420		420	
Turn Bay Length (ft)	200		100	200		200		200		75
Base Capacity (vph)	337	599	596	337	595	337	1220	337	983	517
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	0.25	0.46	0.24	0.39	0.60	0.67	0.43	0.31	0.73	0.20

Intersection Summary

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



Lane Group	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	354	1183	80	920
v/c Ratio	0.66	0.75	0.16	0.44
Control Delay	27.3	3.3	17.5	7.2
Queue Delay	0.0	0.0	0.0	0.4
Total Delay	27.3	3.3	17.5	7.5
Queue Length 50th (ft)	132	0	25	118
Queue Length 95th (ft)	165	0	40	154
Internal Link Dist (ft)	365		338	190
Turn Bay Length (ft)		250		
Base Capacity (vph)	785	1583	732	2084
Starvation Cap Reductn	0	0	0	577
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.45	0.75	0.11	0.61

Intersection Summary



Lane Group	EBL	NBT
Lane Group Flow (vph)	333	577
v/c Ratio	0.67	0.28
Control Delay	29.1	8.5
Queue Delay	0.0	0.0
Total Delay	29.1	8.5
Queue Length 50th (ft)	130	60
Queue Length 95th (ft)	179	100
Internal Link Dist (ft)	338	310
Turn Bay Length (ft)		
Base Capacity (vph)	686	2075
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.49	0.28

Intersection Summary



Lane Group	EBT	EBR	SBL	SBT
Lane Group Flow (vph)	272	380	438	1612
v/c Ratio	0.21	0.65	0.42	0.89
Control Delay	14.5	21.6	3.3	21.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	14.5	21.6	3.3	21.9
Queue Length 50th (ft)	42	126	11	312
Queue Length 95th (ft)	50	160	30	#493
Internal Link Dist (ft)	431			470
Turn Bay Length (ft)		25	150	
Base Capacity (vph)	2022	915	1038	1815
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.13	0.42	0.42	0.89

Intersection Summary

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



Lane Group	EBL	EBT	NBT	NBR
Lane Group Flow (vph)	281	393	273	500
v/c Ratio	0.38	0.68	0.13	0.32
Control Delay	3.8	32.1	9.9	0.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	3.8	32.1	9.9	0.5
Queue Length 50th (ft)	0	194	33	0
Queue Length 95th (ft)	43	240	65	0
Internal Link Dist (ft)		395	720	
Turn Bay Length (ft)				125
Base Capacity (vph)	1114	1043	2070	1583
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.25	0.38	0.13	0.32

Intersection Summary



Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	1092	344	237	750
v/c Ratio	0.63	0.37	0.27	0.69
Control Delay	12.4	10.1	2.1	21.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.4	10.1	2.1	21.7
Queue Length 50th (ft)	135	68	0	119
Queue Length 95th (ft)	116	117	27	137
Internal Link Dist (ft)	223	438		520
Turn Bay Length (ft)				
Base Capacity (vph)	1724	923	891	1088
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.63	0.37	0.27	0.69

Intersection Summary



Lane Group	EBT	WBT	WBR	NBT	NBR2	SBL	SBT	SWR2
Lane Group Flow (vph)	131	152	291	229	11	761	831	13
v/c Ratio	0.31	0.37	0.24	0.48	0.03	0.90	0.94	0.02
Control Delay	29.6	33.8	4.1	41.3	0.2	40.4	44.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.6	33.8	4.1	41.3	0.2	40.4	44.6	0.1
Queue Length 50th (ft)	62	81	29	69	0	374	421	0
Queue Length 95th (ft)	94	107	78	100	0	#619	#684	0
Internal Link Dist (ft)	310	1100		571			552	
Turn Bay Length (ft)					75			
Base Capacity (vph)	541	532	1205	675	398	846	888	596
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.29	0.24	0.34	0.03	0.90	0.94	0.02

Intersection Summary

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

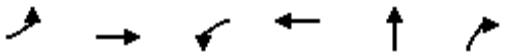


Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	872	11	184	13	26	367	1133	167
v/c Ratio	1.09	0.09	0.23	0.10	0.04	0.50	1.47	0.22
Control Delay	79.0	11.9	11.4	12.9	4.7	15.6	240.1	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.0	11.9	11.4	12.9	4.7	15.6	240.1	3.1
Queue Length 50th (ft)	~355	2	38	3	0	90	~561	0
Queue Length 95th (ft)	#360	10	71	11	9	157	#771	29
Internal Link Dist (ft)	1100		365				400	
Turn Bay Length (ft)		75			60	60		
Base Capacity (vph)	801	128	803	128	671	732	770	752
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.09	0.09	0.23	0.10	0.04	0.50	1.47	0.22

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	NBT	NBR
Lane Group Flow (vph)	72	1153	25	235	554	21
v/c Ratio	0.10	0.95	0.20	0.20	1.99	0.07
Control Delay	4.0	28.0	6.6	2.8	480.8	2.5
Queue Delay	0.0	20.5	0.0	0.0	0.0	0.0
Total Delay	4.0	48.5	6.6	2.8	480.8	2.5
Queue Length 50th (ft)	8	297	2	18	~323	0
Queue Length 95th (ft)	14	258	m6	m24	#490	5
Internal Link Dist (ft)		365		1209	411	
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	756	1213	124	1189	278	284
Starvation Cap Reductn	0	106	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	0.10	1.04	0.20	0.20	1.99	0.07

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	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	702	163	91	1182	156
v/c Ratio	0.83	0.19	0.13	0.86	0.23
Control Delay	25.3	10.5	12.5	25.3	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.3	10.5	12.5	25.3	5.0
Queue Length 50th (ft)	204	33	20	197	7
Queue Length 95th (ft)	#347	61	38	214	27
Internal Link Dist (ft)	330	230		550	
Turn Bay Length (ft)			100		100
Base Capacity (vph)	842	846	685	1370	688
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	0.83	0.19	0.13	0.86	0.23

Intersection Summary

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



Lane Group	WBL	WBT	SBL	SBR	SET	NWT
Lane Group Flow (vph)	46	308	438	863	44	32
v/c Ratio	0.10	0.65	0.59	0.69	0.10	0.10
Control Delay	16.5	25.1	16.6	14.1	11.6	19.5
Queue Delay	0.0	0.0	0.4	0.0	0.0	0.0
Total Delay	16.5	25.1	17.0	14.1	11.6	19.5
Queue Length 50th (ft)	8	60	55	50	4	6
Queue Length 95th (ft)	24	111	165	137	10	20
Internal Link Dist (ft)		349	215		227	183
Turn Bay Length (ft)						
Base Capacity (vph)	452	475	843	1410	459	430
Starvation Cap Reductn	0	0	106	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	0.10	0.65	0.59	0.61	0.10	0.07

Intersection Summary

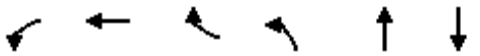
Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	769	152	565
v/c Ratio	0.43	0.33	0.88
Control Delay	10.0	16.9	35.0
Queue Delay	0.0	0.0	0.0
Total Delay	10.0	16.9	35.0
Queue Length 50th (ft)	83	33	175
Queue Length 95th (ft)	120	84	191
Internal Link Dist (ft)	724	384	409
Turn Bay Length (ft)			
Base Capacity (vph)	1803	459	645
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.43	0.33	0.88

Intersection Summary



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	839	25	151	344	372
v/c Ratio	0.63	0.04	0.36	0.39	0.42
Control Delay	17.6	5.7	12.8	11.3	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	5.7	12.8	11.3	11.1
Queue Length 50th (ft)	122	0	31	72	74
Queue Length 95th (ft)	151	10	70	124	121
Internal Link Dist (ft)	724			395	398
Turn Bay Length (ft)		100	100		
Base Capacity (vph)	1323	611	418	893	885
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	0.63	0.04	0.36	0.39	0.42

Intersection Summary



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	531	375	52	190	534	447
v/c Ratio	1.01	0.36	0.10	0.41	0.51	0.43
Control Delay	64.5	17.2	8.3	5.3	4.3	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.5	17.2	8.3	5.3	4.3	7.0
Queue Length 50th (ft)	~217	70	5	10	28	58
Queue Length 95th (ft)	m#380	m98	m15	14	31	100
Internal Link Dist (ft)		314			377	420
Turn Bay Length (ft)	75		75	75		
Base Capacity (vph)	525	1049	506	459	1049	1034
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	1.01	0.36	0.10	0.41	0.51	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.

m Volume for 95th percentile queue is metered by upstream signal.



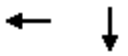
Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	613	86	500	310
v/c Ratio	0.44	0.17	0.37	0.17
Control Delay	18.6	5.4	9.2	5.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	18.6	5.4	9.2	5.5
Queue Length 50th (ft)	65	0	50	19
Queue Length 95th (ft)	94	27	74	33
Internal Link Dist (ft)	328		377	547
Turn Bay Length (ft)		100		
Base Capacity (vph)	1382	520	1352	1774
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.44	0.17	0.37	0.17

Intersection Summary



Lane Group	WBT	WBR	NBT
Lane Group Flow (vph)	417	548	443
v/c Ratio	0.20	0.73	0.42
Control Delay	6.1	11.2	10.9
Queue Delay	0.0	0.0	0.0
Total Delay	6.1	11.2	10.9
Queue Length 50th (ft)	13	30	31
Queue Length 95th (ft)	31	112	57
Internal Link Dist (ft)	182		384
Turn Bay Length (ft)			
Base Capacity (vph)	3213	1037	1784
Starvation Cap Reductn	0	14	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.13	0.54	0.25

Intersection Summary



Lane Group	WBT	SBT
Lane Group Flow (vph)	427	1369
v/c Ratio	0.36	0.73
Control Delay	10.9	10.3
Queue Delay	0.0	0.0
Total Delay	10.9	10.3
Queue Length 50th (ft)	23	74
Queue Length 95th (ft)	40	#232
Internal Link Dist (ft)	193	669
Turn Bay Length (ft)		
Base Capacity (vph)	2039	1978
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.21	0.69

Intersection Summary

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



Lane Group	EBT	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	40	418	132	147	402
v/c Ratio	0.07	0.66	0.20	0.23	0.55
Control Delay	4.9	15.1	3.0	9.0	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.9	15.1	3.0	9.0	12.1
Queue Length 50th (ft)	1	55	0	18	56
Queue Length 95th (ft)	6	137	21	33	121
Internal Link Dist (ft)	207	318		246	405
Turn Bay Length (ft)					
Base Capacity (vph)	693	818	798	792	917
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	0.06	0.51	0.17	0.19	0.44

Intersection Summary

Lane Group	EBT	SBT
Lane Group Flow (vph)	1013	1236
v/c Ratio	0.58	1.28dl
Control Delay	12.9	14.3
Queue Delay	0.0	0.0
Total Delay	12.9	14.3
Queue Length 50th (ft)	72	125
Queue Length 95th (ft)	89	188
Internal Link Dist (ft)	976	388
Turn Bay Length (ft)		
Base Capacity (vph)	1927	1685
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.53	0.73

Intersection Summary

dl Defacto Left Lane. Recode with 1 though lane as a left lane.



Lane Group	EBT	NBT
Lane Group Flow (vph)	1901	579
v/c Ratio	0.74	1.10dr
Control Delay	10.4	15.6
Queue Delay	1.0	0.0
Total Delay	11.4	15.6
Queue Length 50th (ft)	112	59
Queue Length 95th (ft)	175	68
Internal Link Dist (ft)	196	515
Turn Bay Length (ft)		
Base Capacity (vph)	2590	1108
Starvation Cap Reductn	398	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.87	0.52

Intersection Summary

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

Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	2170	329	218
v/c Ratio	0.91	0.25	0.20
Control Delay	21.3	11.6	11.5
Queue Delay	45.6	0.0	0.0
Total Delay	66.9	11.6	11.5
Queue Length 50th (ft)	199	35	23
Queue Length 95th (ft)	#289	56	35
Internal Link Dist (ft)	189	898	377
Turn Bay Length (ft)			
Base Capacity (vph)	2372	1558	1344
Starvation Cap Reductn	477	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.15	0.21	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	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	344	552	344	187	93	79	684
v/c Ratio	0.60	0.48	0.46	0.44	0.21	0.30	1.69
Control Delay	22.3	18.0	4.4	23.6	5.5	32.9	342.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.3	18.0	4.4	23.6	5.5	32.9	342.3
Queue Length 50th (ft)	103	82	0	58	0	30	~402
Queue Length 95th (ft)	178	123	48	89	17	m38	m#431
Internal Link Dist (ft)		339		246			377
Turn Bay Length (ft)	100		150		100	75	
Base Capacity (vph)	572	1144	744	428	444	260	405
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	0.60	0.48	0.46	0.44	0.21	0.30	1.69

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.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	846	495	46	356
v/c Ratio	0.62	0.57	0.15	0.41
Control Delay	16.3	14.5	11.1	12.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	16.3	14.5	11.1	12.4
Queue Length 50th (ft)	114	110	8	75
Queue Length 95th (ft)	164	212	27	138
Internal Link Dist (ft)	326	401		395
Turn Bay Length (ft)			100	
Base Capacity (vph)	1525	1116	392	1132
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.55	0.44	0.12	0.31

Intersection Summary

Lane Group	EBT	EBR	NBT	SBT
Lane Group Flow (vph)	644	92	98	378
v/c Ratio	0.35	0.11	0.15	0.63
Control Delay	9.4	2.4	13.0	13.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.4	2.4	13.0	13.4
Queue Length 50th (ft)	66	0	21	48
Queue Length 95th (ft)	93	16	49	m74
Internal Link Dist (ft)	720		908	384
Turn Bay Length (ft)		50		
Base Capacity (vph)	1827	873	656	603
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.35	0.11	0.15	0.63

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	341	154	84	276	76
v/c Ratio	0.62	0.19	0.12	0.35	0.10
Control Delay	19.2	5.8	5.4	11.9	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	5.8	5.4	11.9	10.5
Queue Length 50th (ft)	89	13	5	56	15
Queue Length 95th (ft)	167	42	3	100	36
Internal Link Dist (ft)		314	353	897	405
Turn Bay Length (ft)					
Base Capacity (vph)	548	790	705	782	776
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	0.62	0.19	0.12	0.35	0.10

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	160	450	69	586	29	171	162	100	88
v/c Ratio	0.41	0.24	0.40	0.44	0.10	0.40	0.75	0.26	0.22
Control Delay	30.3	10.9	40.6	17.9	22.9	14.9	49.4	25.1	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	10.9	40.6	17.9	22.9	14.9	49.4	25.1	7.1
Queue Length 50th (ft)	66	57	36	100	11	31	70	38	0
Queue Length 95th (ft)	126	98	75	124	23	51	113	65	24
Internal Link Dist (ft)		890		346		331		246	
Turn Bay Length (ft)	120		120		115		125		125
Base Capacity (vph)	395	1867	330	1336	342	495	260	466	465
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	0.41	0.24	0.21	0.44	0.08	0.35	0.62	0.21	0.19

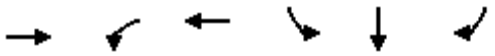
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	27	946	310	747	95	107	72	36	24
v/c Ratio	0.20	0.76	0.71	0.36	0.39	0.38	0.41	0.16	0.08
Control Delay	41.2	32.4	36.3	13.0	34.3	15.4	38.4	29.2	0.5
Queue Delay	0.0	0.4	15.3	0.0	0.0	1.6	0.1	0.0	0.0
Total Delay	41.2	32.8	51.5	13.0	34.3	17.0	38.5	29.2	0.5
Queue Length 50th (ft)	13	227	127	64	43	16	33	16	0
Queue Length 95th (ft)	m30	#388	m204	m213	77	43	62	32	0
Internal Link Dist (ft)		346		168		395		179	
Turn Bay Length (ft)	100		125		100				
Base Capacity (vph)	321	1241	436	2058	554	360	554	328	388
Starvation Cap Reductn	0	0	111	0	0	0	0	0	0
Spillback Cap Reductn	0	62	0	0	0	138	128	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.80	0.95	0.36	0.17	0.48	0.17	0.11	0.06

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	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1000	241	437	434	847	391
v/c Ratio	0.81	0.88	0.22	0.92	0.88	0.56
Control Delay	19.3	57.0	3.3	54.1	34.5	6.0
Queue Delay	5.6	0.0	0.0	8.4	13.9	0.3
Total Delay	24.9	57.0	3.3	62.5	48.4	6.3
Queue Length 50th (ft)	33	121	14	216	190	0
Queue Length 95th (ft)	116	m#218	m21	#300	207	29
Internal Link Dist (ft)	168		218		367	
Turn Bay Length (ft)						
Base Capacity (vph)	1228	274	1962	472	959	699
Starvation Cap Reductn	177	0	0	0	0	0
Spillback Cap Reductn	0	0	0	28	115	55
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.88	0.22	0.98	1.00	0.61

Intersection Summary

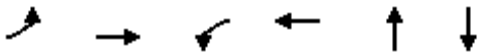
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	316	937	533	380	812	375
v/c Ratio	0.89	0.45	0.45	0.58	0.87	0.79
Control Delay	46.9	3.0	20.9	16.4	34.4	30.0
Queue Delay	0.0	0.8	1.1	2.1	0.0	0.0
Total Delay	46.9	3.8	21.9	18.4	34.4	30.0
Queue Length 50th (ft)	123	14	102	84	168	114
Queue Length 95th (ft)	m161	m45	146	173	#275	#267
Internal Link Dist (ft)		218	178		514	
Turn Bay Length (ft)						
Base Capacity (vph)	372	2101	1189	651	937	480
Starvation Cap Reductn	0	779	402	148	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.71	0.68	0.76	0.87	0.78

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.



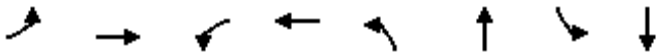
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	307	1397	12	745	182	245
v/c Ratio	0.81	0.70	0.09	0.39	0.33	0.36
Control Delay	33.1	13.3	11.0	8.6	16.2	10.6
Queue Delay	0.0	7.4	0.0	0.0	0.0	0.0
Total Delay	33.1	20.7	11.0	8.6	16.2	10.6
Queue Length 50th (ft)	52	110	1	45	22	18
Queue Length 95th (ft)	#292	#434	14	161	40	36
Internal Link Dist (ft)		178		725	576	898
Turn Bay Length (ft)	100		75			
Base Capacity (vph)	380	1982	141	1905	1589	1807
Starvation Cap Reductn	0	545	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	0.81	0.97	0.09	0.39	0.11	0.14

Intersection Summary

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

Lane Group	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	1385	478	44	611	107	466
v/c Ratio	0.91	0.31	0.06	0.52	0.35	0.30
Control Delay	30.3	14.6	4.5	16.9	18.1	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	14.6	4.5	16.9	18.1	12.1
Queue Length 50th (ft)	305	74	0	103	32	60
Queue Length 95th (ft)	314	107	17	121	56	71
Internal Link Dist (ft)	725	595		888		412
Turn Bay Length (ft)			200		100	
Base Capacity (vph)	1522	1550	718	1399	362	1872
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	0.91	0.31	0.06	0.44	0.30	0.25

Intersection Summary

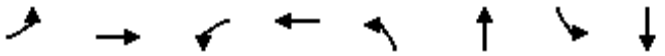


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	156	739	150	700	188	600	155	357
v/c Ratio	0.66	0.81	0.65	0.77	0.93	1.00	0.71	0.57
Control Delay	59.1	45.9	58.6	42.9	99.8	74.2	64.8	33.4
Queue Delay	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	47.3	58.6	42.9	99.8	74.2	64.8	33.4
Queue Length 50th (ft)	108	252	104	230	~151	~469	107	202
Queue Length 95th (ft)	170	331	143	258	#320	#687	163	272
Internal Link Dist (ft)		338		729		891		406
Turn Bay Length (ft)	150		125		150		150	
Base Capacity (vph)	316	947	316	949	202	601	252	625
Starvation Cap Reductn	0	78	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.85	0.47	0.74	0.93	1.00	0.62	0.57

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.



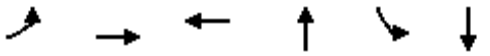
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	13	779	128	649	163	65	150	212
v/c Ratio	0.03	0.36	0.33	0.29	0.71	0.16	0.51	0.49
Control Delay	7.1	7.4	10.8	7.1	39.1	16.5	27.0	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	7.4	10.8	7.1	39.1	16.5	27.0	20.5
Queue Length 50th (ft)	2	68	21	54	60	17	53	59
Queue Length 95th (ft)	8	104	68	105	106	39	78	85
Internal Link Dist (ft)		729		707		887		908
Turn Bay Length (ft)	75		100		100		75	
Base Capacity (vph)	459	2171	388	2204	476	838	611	839
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.36	0.33	0.29	0.34	0.08	0.25	0.25

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	33	417	105	758	56	122	66	276	92
v/c Ratio	0.27	0.35	0.34	0.64	0.12	0.16	0.11	0.32	0.12
Control Delay	20.6	13.2	18.4	19.4	10.5	7.3	10.3	11.6	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	13.2	18.4	19.4	10.5	7.3	10.3	11.6	3.3
Queue Length 50th (ft)	9	48	28	118	10	14	12	56	0
Queue Length 95th (ft)	29	78	63	167	33	45	30	100	15
Internal Link Dist (ft)		707		320		887		416	
Turn Bay Length (ft)	100		100		100		100		75
Base Capacity (vph)	185	1749	459	1765	551	914	610	865	782
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	0.18	0.24	0.23	0.43	0.10	0.13	0.11	0.32	0.12

Intersection Summary



Lane Group	EBL	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	41	340	977	307	120	44
v/c Ratio	0.25	0.22	0.68	0.24	0.28	0.06
Control Delay	15.8	11.2	16.6	11.3	16.1	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	11.2	16.6	11.3	16.1	10.6
Queue Length 50th (ft)	9	39	143	34	32	8
Queue Length 95th (ft)	31	62	195	47	69	26
Internal Link Dist (ft)		320	512	890		897
Turn Bay Length (ft)	100				100	
Base Capacity (vph)	169	1640	1506	1305	422	726
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	0.24	0.21	0.65	0.24	0.28	0.06

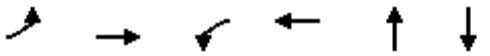
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	17	136	380	390	437	45	225	270	273	307	23
v/c Ratio	0.06	0.47	0.75	0.76	0.56	0.52	0.77	0.29	0.91	0.27	0.04
Control Delay	29.1	35.5	38.5	38.7	5.9	64.2	53.9	2.8	70.5	24.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	35.5	38.5	38.7	5.9	64.2	53.9	2.8	70.5	24.5	0.1
Queue Length 50th (ft)	8	63	178	184	0	23	112	0	139	64	0
Queue Length 95th (ft)	16	69	#373	#383	62	#82	#269	42	#333	119	0
Internal Link Dist (ft)		390		1100			533			550	
Turn Bay Length (ft)	75		225			125		325	250		100
Base Capacity (vph)	559	582	531	541	799	86	294	966	301	1139	587
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.23	0.72	0.72	0.55	0.52	0.77	0.28	0.91	0.27	0.04

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	93	488	104	396	674	411
v/c Ratio	0.44	0.79	0.74	0.64	0.42	0.31
Control Delay	23.0	29.2	53.6	20.7	8.7	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.0	29.2	53.6	20.7	8.7	8.2
Queue Length 50th (ft)	25	145	31	103	61	36
Queue Length 95th (ft)	60	#265	#106	185	84	50
Internal Link Dist (ft)		719		260	398	888
Turn Bay Length (ft)	50		50			
Base Capacity (vph)	212	614	140	614	1597	1326
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	0.44	0.79	0.74	0.64	0.42	0.31

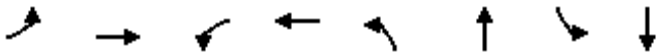
Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	146	513	48	703	69	356	162	311	122
v/c Ratio	0.55	0.33	0.13	0.43	0.18	0.48	0.47	0.41	0.17
Control Delay	21.6	9.7	10.7	7.0	12.4	14.3	18.0	14.1	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	9.7	10.7	7.0	12.4	14.3	18.0	14.1	3.3
Queue Length 50th (ft)	34	48	9	43	14	79	39	72	0
Queue Length 95th (ft)	76	68	24	66	36	136	65	98	15
Internal Link Dist (ft)		260		699		877		896	
Turn Bay Length (ft)	85		100		75		100		100
Base Capacity (vph)	265	1551	358	1627	383	749	345	755	714
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	0.33	0.13	0.43	0.18	0.48	0.47	0.41	0.17

Intersection Summary

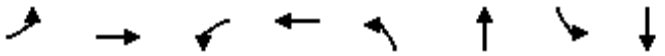


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	108	595	68	1027	79	494	146	427
v/c Ratio	0.55	0.57	0.43	1.05	0.47	0.83	0.64	0.61
Control Delay	50.1	30.6	49.8	76.0	50.0	43.3	51.7	28.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	30.6	49.8	76.0	50.0	43.3	51.7	28.8
Queue Length 50th (ft)	61	155	39	~356	45	260	82	198
Queue Length 95th (ft)	95	184	68	#396	93	#487	152	348
Internal Link Dist (ft)		339		739		884		891
Turn Bay Length (ft)	150		140		100		100	
Base Capacity (vph)	326	1043	326	978	326	636	326	699
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.57	0.21	1.05	0.24	0.78	0.45	0.61

Intersection Summary

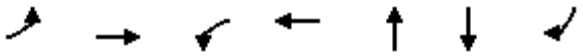
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	12	454	99	846	106	282	129	518
v/c Ratio	0.06	0.30	0.26	0.55	0.48	0.36	0.31	0.67
Control Delay	10.9	10.5	13.1	13.1	21.7	9.1	14.4	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.9	10.5	13.1	13.1	21.7	9.1	14.4	17.3
Queue Length 50th (ft)	2	47	22	103	27	40	30	122
Queue Length 95th (ft)	10	71	51	151	65	80	61	198
Internal Link Dist (ft)		739		700		1849		887
Turn Bay Length (ft)	75		75		100		50	
Base Capacity (vph)	201	1529	386	1542	223	775	416	768
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.30	0.26	0.55	0.48	0.36	0.31	0.67

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	39	481	148	1239	225	197	93
v/c Ratio	0.32	0.29	0.34	0.71	0.33	0.35	0.17
Control Delay	17.9	9.0	12.2	14.6	14.0	15.7	8.5
Queue Delay	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Total Delay	17.9	9.0	12.2	15.1	14.0	15.7	8.5
Queue Length 50th (ft)	8	46	30	167	51	49	11
Queue Length 95th (ft)	25	59	65	225	96	90	34
Internal Link Dist (ft)		700		324	1841	887	
Turn Bay Length (ft)	60		75				75
Base Capacity (vph)	123	1676	431	1737	684	567	548
Starvation Cap Reductn	0	0	0	169	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	0.32	0.29	0.34	0.79	0.33	0.35	0.17

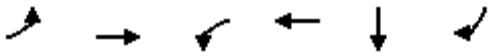
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	60	458	12	1462	138	49	183	61	33	54
v/c Ratio	0.42	0.21	0.02	0.66	0.14	0.17	0.45	0.15	0.13	0.13
Control Delay	20.4	5.5	6.0	9.5	3.4	17.9	21.6	6.0	17.6	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	5.5	6.0	9.5	3.4	17.9	21.6	6.0	17.6	14.4
Queue Length 50th (ft)	7	24	1	114	5	13	52	0	9	11
Queue Length 95th (ft)	#58	65	8	251	28	31	86	18	26	33
Internal Link Dist (ft)		324		505			1849			890
Turn Bay Length (ft)	75				75	50		50	100	
Base Capacity (vph)	148	2229	590	2300	1056	608	842	748	505	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	0.41	0.21	0.02	0.64	0.13	0.08	0.22	0.08	0.07	0.07

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	32	489	195	1724	176	54
v/c Ratio	0.26	0.20	0.31	0.70	0.57	0.19
Control Delay	14.2	4.7	5.5	7.7	34.8	16.0
Queue Delay	0.0	0.0	0.0	0.5	0.0	0.0
Total Delay	14.2	4.7	5.5	8.2	34.8	16.0
Queue Length 50th (ft)	4	25	9	82	80	12
Queue Length 95th (ft)	34	81	m71	#360	85	25
Internal Link Dist (ft)		324		303	295	
Turn Bay Length (ft)	100		175			50
Base Capacity (vph)	121	2478	626	2474	611	544
Starvation Cap Reductn	0	0	0	333	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.20	0.31	0.81	0.29	0.10

Intersection Summary

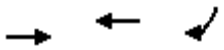
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	628	514	454	1481	658
v/c Ratio	0.86	0.71	0.42	0.70	0.67
Control Delay	44.7	35.2	6.5	9.2	10.5
Queue Delay	0.0	0.0	0.0	0.1	0.0
Total Delay	44.7	35.2	6.5	9.3	10.5
Queue Length 50th (ft)	154	121	79	183	143
Queue Length 95th (ft)	#243	133	127	252	252
Internal Link Dist (ft)	1100	380		1000	
Turn Bay Length (ft)			200		225
Base Capacity (vph)	727	727	1131	2183	1019
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	70	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.86	0.71	0.40	0.70	0.65

Intersection Summary

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



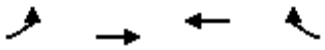
Lane Group	EBT	WBT	SBR
Lane Group Flow (vph)	506	831	1212
v/c Ratio	0.37	0.61	0.85
Control Delay	16.5	21.9	13.5
Queue Delay	0.0	0.0	0.9
Total Delay	16.5	21.9	14.4
Queue Length 50th (ft)	96	165	92
Queue Length 95th (ft)	138	188	97
Internal Link Dist (ft)	303	471	
Turn Bay Length (ft)			
Base Capacity (vph)	1354	1354	1542
Starvation Cap Reductn	0	0	93
Spillback Cap Reductn	0	17	123
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.37	0.62	0.85

Intersection Summary



Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	362	180	547	280	244
v/c Ratio	0.34	0.12	0.52	0.27	0.24
Control Delay	12.8	0.2	29.4	9.0	1.7
Queue Delay	0.0	0.0	0.2	0.0	0.0
Total Delay	12.8	0.2	29.7	9.0	1.7
Queue Length 50th (ft)	39	0	153	58	0
Queue Length 95th (ft)	70	0	194	105	20
Internal Link Dist (ft)	471		185	347	
Turn Bay Length (ft)		100			100
Base Capacity (vph)	1467	1441	1541	1389	1295
Starvation Cap Reductn	0	0	390	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.25	0.12	0.48	0.20	0.19

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR
Lane Group Flow (vph)	464	714	468	722
v/c Ratio	0.59	0.20	0.30	0.46
Control Delay	22.2	0.1	10.8	0.8
Queue Delay	0.2	0.0	0.1	0.0
Total Delay	22.4	0.1	10.9	0.8
Queue Length 50th (ft)	186	0	48	0
Queue Length 95th (ft)	271	0	70	0
Internal Link Dist (ft)		380	250	
Turn Bay Length (ft)	200			125
Base Capacity (vph)	956	3539	1921	1583
Starvation Cap Reductn	82	0	561	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.53	0.20	0.34	0.46

Intersection Summary

Lane Group	EBT	WBT	WBR	SEL
Lane Group Flow (vph)	422	1129	602	698
v/c Ratio	0.27	0.72	0.42	0.46
Control Delay	18.7	15.7	0.9	18.0
Queue Delay	0.2	0.2	0.0	0.1
Total Delay	18.9	15.9	0.9	18.1
Queue Length 50th (ft)	78	163	0	134
Queue Length 95th (ft)	129	219	0	180
Internal Link Dist (ft)	185	745		250
Turn Bay Length (ft)			150	
Base Capacity (vph)	1921	1843	1441	1854
Starvation Cap Reductn	845	0	0	365
Spillback Cap Reductn	0	172	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.39	0.68	0.42	0.47

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	140	667	118	196	881	494	353	35	348	681	261
v/c Ratio	0.49	0.65	0.23	0.57	0.82	0.82	0.34	0.07	0.71	0.73	0.48
Control Delay	55.1	37.7	12.3	54.6	42.0	56.1	31.6	0.2	53.5	41.6	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.1	37.7	12.3	54.6	42.0	56.1	31.6	0.2	53.5	41.6	15.3
Queue Length 50th (ft)	50	216	16	69	298	174	101	0	122	230	49
Queue Length 95th (ft)	86	307	65	113	413	#253	148	0	134	225	65
Internal Link Dist (ft)		745			420		460			480	
Turn Bay Length (ft)	150		110	150		150		90	150		125
Base Capacity (vph)	648	1135	566	648	1139	648	1143	569	648	1135	624
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.59	0.21	0.30	0.77	0.76	0.31	0.06	0.54	0.60	0.42

Intersection Summary

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



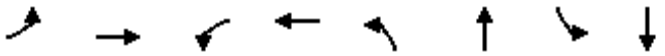
Lane Group	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	68	441	438	88	138	188
v/c Ratio	0.19	0.66	0.60	0.13	0.38	0.17
Control Delay	21.3	8.0	18.6	6.8	24.8	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.3	8.0	18.6	6.8	24.8	4.7
Queue Length 50th (ft)	17	0	94	5	33	14
Queue Length 95th (ft)	52	0	229	30	99	54
Internal Link Dist (ft)	721		891			877
Turn Bay Length (ft)				100	150	
Base Capacity (vph)	1160	1186	1215	1054	789	1741
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	0.06	0.37	0.36	0.08	0.17	0.11

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	41	164	14	202	135	584	13	325	26
v/c Ratio	0.09	0.23	0.03	0.28	0.30	0.66	0.05	0.36	0.03
Control Delay	6.0	2.1	12.0	8.2	11.7	16.0	9.1	11.3	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.0	2.1	12.0	8.2	11.7	16.0	9.1	11.3	4.0
Queue Length 50th (ft)	3	0	3	24	28	145	2	69	0
Queue Length 95th (ft)	7	0	10	40	60	240	9	97	8
Internal Link Dist (ft)		318		327		884		884	
Turn Bay Length (ft)	50		100		100		25		50
Base Capacity (vph)	436	705	462	714	457	886	248	894	773
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	0.09	0.23	0.03	0.28	0.30	0.66	0.05	0.36	0.03

Intersection Summary

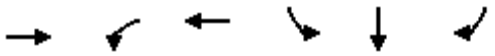


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	171	1100	80	1173	15	135	95	190
v/c Ratio	1.10	0.59	0.44	0.66	0.04	0.23	0.23	0.32
Control Delay	126.2	11.5	18.4	12.4	14.6	9.3	16.9	11.2
Queue Delay	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0
Total Delay	126.2	11.5	18.4	21.1	14.6	9.3	16.9	11.2
Queue Length 50th (ft)	~73	131	16	144	4	16	25	30
Queue Length 95th (ft)	#124	125	39	151	11	31	45	53
Internal Link Dist (ft)		522		182		395		398
Turn Bay Length (ft)	75		90		100		150	
Base Capacity (vph)	155	1867	183	1783	361	589	408	590
Starvation Cap Reductn	0	0	0	578	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.10	0.59	0.44	0.97	0.04	0.23	0.23	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	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1222	115	513	457	440	417
v/c Ratio	0.90	0.89	0.39	0.61	0.59	0.57
Control Delay	30.4	84.3	15.6	15.5	11.7	11.1
Queue Delay	46.5	0.0	0.3	0.0	0.0	0.0
Total Delay	77.0	84.3	15.9	15.5	11.7	11.1
Queue Length 50th (ft)	198	36	64	112	76	67
Queue Length 95th (ft)	268	#124	113	185	147	130
Internal Link Dist (ft)	182		196		582	
Turn Bay Length (ft)		100				225
Base Capacity (vph)	1355	129	1325	1170	1096	1082
Starvation Cap Reductn	271	0	345	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	1.13	0.89	0.52	0.39	0.40	0.39

Intersection Summary

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

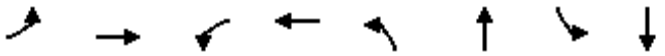


Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	763	1013	593	143	471
v/c Ratio	0.98	0.42	0.86	0.38	1.02
Control Delay	52.2	6.1	43.5	30.3	70.8
Queue Delay	40.5	2.1	0.0	0.0	0.0
Total Delay	92.7	8.3	43.5	30.3	70.8
Queue Length 50th (ft)	363	98	141	62	~177
Queue Length 95th (ft)	#449	102	#208	86	#214
Internal Link Dist (ft)		196	190	795	
Turn Bay Length (ft)	75				575
Base Capacity (vph)	778	2446	704	380	462
Starvation Cap Reductn	241	1241	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.42	0.84	0.84	0.38	1.02

Intersection Summary

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

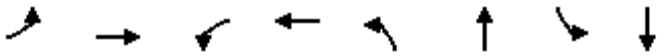
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	198	1000	44	770	45	363	200	280
v/c Ratio	0.62	0.52	0.20	0.40	0.16	0.62	0.92	0.48
Control Delay	20.5	9.9	9.8	5.4	16.7	20.4	68.8	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	9.9	9.8	5.4	16.7	20.4	68.8	17.8
Queue Length 50th (ft)	44	108	7	43	12	93	69	70
Queue Length 95th (ft)	94	130	24	72	32	166	#137	102
Internal Link Dist (ft)		717		601		405		398
Turn Bay Length (ft)	75		100		125		125	
Base Capacity (vph)	320	1909	224	1910	286	586	218	582
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.52	0.20	0.40	0.16	0.62	0.92	0.48

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	25	1127	42	769	211	92	25	38
v/c Ratio	0.13	0.78	0.16	0.50	0.53	0.17	0.07	0.07
Control Delay	37.9	27.7	24.6	21.6	32.3	22.4	23.6	17.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	27.7	24.6	21.6	32.3	22.4	23.6	17.5
Queue Length 50th (ft)	13	283	19	173	100	35	10	10
Queue Length 95th (ft)	32	298	m28	m225	138	59	26	28
Internal Link Dist (ft)		320		718		423		402
Turn Bay Length (ft)	100		150		100		100	
Base Capacity (vph)	196	1436	255	1547	400	541	380	527
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.78	0.16	0.50	0.53	0.17	0.07	0.07

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



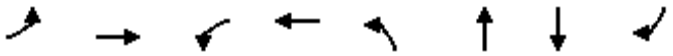
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	88	862	60	759	368	540	161	231	230
v/c Ratio	0.49	0.65	0.40	0.59	0.84	0.69	0.22	1.24	0.30
Control Delay	50.0	30.7	35.5	24.6	43.1	27.0	6.6	171.0	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.0	30.7	35.5	24.6	43.1	27.0	6.6	171.0	17.0
Queue Length 50th (ft)	55	277	35	201	183	244	16	~164	76
Queue Length 95th (ft)	m70	302	69	242	#329	344	50	#250	108
Internal Link Dist (ft)		718		725		385			884
Turn Bay Length (ft)	140		150		90		50	100	
Base Capacity (vph)	196	1329	196	1283	437	782	730	187	768
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	0.65	0.31	0.59	0.84	0.69	0.22	1.24	0.30

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.



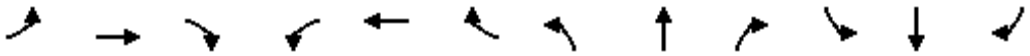
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	12	847	24	964	109	456	310	24
v/c Ratio	0.05	0.43	0.08	0.49	0.41	0.74	1.04	0.05
Control Delay	5.1	10.0	10.8	13.7	29.1	34.7	96.9	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.1	10.0	10.8	13.7	29.1	34.7	96.9	8.0
Queue Length 50th (ft)	2	209	6	130	47	222	~192	0
Queue Length 95th (ft)	m2	m105	m12	m131	98	337	#317	14
Internal Link Dist (ft)		725		706		930	1849	
Turn Bay Length (ft)	75		225		100			75
Base Capacity (vph)	248	1963	297	1970	265	613	297	524
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.43	0.08	0.49	0.41	0.74	1.04	0.05

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	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	159	720	12	12	598	98	377	461	12	46	31	31
v/c Ratio	0.84	0.32	0.01	0.10	0.33	0.11	1.20	1.11	0.03	0.64	0.08	0.08
Control Delay	74.1	5.5	0.1	50.1	11.4	1.6	146.0	109.0	0.1	70.4	27.0	2.4
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	74.1	5.5	0.1	50.1	11.4	1.6	146.0	109.0	0.1	70.4	27.0	2.4
Queue Length 50th (ft)	97	35	0	7	110	0	~277	~322	0	23	14	0
Queue Length 95th (ft)	m#162	m93	m0	23	66	5	#434	#485	m0	42	26	0
Internal Link Dist (ft)		706			318			380			1841	
Turn Bay Length (ft)	200		75	100		150	175			75		50
Base Capacity (vph)	196	2269	1037	196	1812	858	315	416	431	82	451	431
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	0.81	0.32	0.01	0.06	0.33	0.11	1.20	1.11	0.03	0.56	0.07	0.07

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.

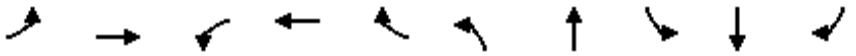
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBT
Lane Group Flow (vph)	62	704	770	58	174	188	33
v/c Ratio	0.13	0.26	0.29	0.27	0.61	0.47	0.17
Control Delay	2.0	1.4	3.9	34.6	43.4	8.6	15.4
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	2.0	1.5	3.9	34.6	43.4	8.6	15.4
Queue Length 50th (ft)	3	20	46	30	95	0	3
Queue Length 95th (ft)	m7	23	104	43	103	17	26
Internal Link Dist (ft)		318	536		268		1849
Turn Bay Length (ft)	100						
Base Capacity (vph)	489	2662	2641	423	575	618	383
Starvation Cap Reductn	0	664	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	0.13	0.35	0.29	0.14	0.30	0.30	0.09

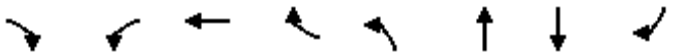
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	98	489	25	691	235	13	213	215	203	203
v/c Ratio	0.46	0.23	0.20	0.38	0.48	0.06	0.26	0.80	0.46	0.38
Control Delay	43.7	10.4	42.9	16.1	13.1	23.4	26.1	52.2	31.5	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.7	10.4	42.9	16.1	13.1	23.4	26.1	52.2	31.5	5.8
Queue Length 50th (ft)	52	50	14	127	38	6	50	115	99	0
Queue Length 95th (ft)	101	127	34	177	71	15	57	148	123	29
Internal Link Dist (ft)		420		420			420		420	
Turn Bay Length (ft)	275		125		75	75		175		
Base Capacity (vph)	236	2164	196	1840	620	308	1151	375	608	653
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	0.42	0.23	0.13	0.38	0.38	0.04	0.19	0.57	0.33	0.31

Intersection Summary



Lane Group	EBR	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	12	306	129	1059	11	124	33	22
v/c Ratio	0.01	0.41	0.16	0.59	0.09	0.14	0.04	0.03
Control Delay	0.0	18.6	14.7	2.4	41.2	16.4	24.9	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	18.6	14.7	2.4	41.2	16.4	24.9	9.4
Queue Length 50th (ft)	0	105	39	0	6	43	15	0
Queue Length 95th (ft)	0	147	64	21	23	81	51	0
Internal Link Dist (ft)			974			434	380	
Turn Bay Length (ft)		250		250	125			125
Base Capacity (vph)	1331	885	931	1923	236	886	800	720
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.35	0.14	0.55	0.05	0.14	0.04	0.03

Intersection Summary



Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	612	407	229	145
v/c Ratio	0.52	0.51	0.66	0.19
Control Delay	11.6	7.2	19.7	7.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.6	7.2	19.7	7.5
Queue Length 50th (ft)	45	28	31	15
Queue Length 95th (ft)	91	76	85	39
Internal Link Dist (ft)	730	349		930
Turn Bay Length (ft)			100	
Base Capacity (vph)	1665	1167	541	1192
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.37	0.35	0.42	0.12

Intersection Summary



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	699	668	47	267	446
v/c Ratio	0.81	0.73	0.23	0.43	0.70
Control Delay	16.4	9.8	13.6	13.3	17.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.4	9.8	13.6	13.3	17.5
Queue Length 50th (ft)	83	40	8	50	79
Queue Length 95th (ft)	109	55	26	91	136
Internal Link Dist (ft)	552			267	182
Turn Bay Length (ft)		400	100		
Base Capacity (vph)	980	1010	256	777	777
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	0.71	0.66	0.18	0.34	0.57

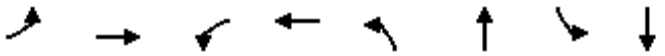
Intersection Summary

Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	700	16	31	353
v/c Ratio	0.74	0.03	0.03	0.36
Control Delay	25.5	6.7	6.6	8.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	25.5	6.7	6.6	8.2
Queue Length 50th (ft)	120	2	5	57
Queue Length 95th (ft)	175	7	10	95
Internal Link Dist (ft)	323		385	393
Turn Bay Length (ft)		100		
Base Capacity (vph)	946	543	1026	970
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.74	0.03	0.03	0.36

Intersection Summary

Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	726	70	180	47
v/c Ratio	0.40	0.12	0.42	0.08
Control Delay	8.9	8.7	18.6	13.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.0	8.7	18.6	13.6
Queue Length 50th (ft)	71	8	47	11
Queue Length 95th (ft)	84	28	95	28
Internal Link Dist (ft)	315	889		385
Turn Bay Length (ft)			100	
Base Capacity (vph)	2444	1224	900	1302
Starvation Cap Reductn	247	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.33	0.06	0.20	0.04

Intersection Summary



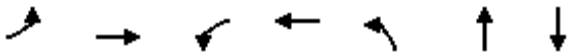
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	16	938	11	231	12	107	118	574
v/c Ratio	0.03	1.01	0.09	0.24	0.10	0.19	0.30	1.00
Control Delay	7.0	40.9	9.8	8.6	17.2	13.3	18.3	61.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.0	40.9	9.8	8.6	17.2	13.3	18.3	61.5
Queue Length 50th (ft)	3	~382	2	40	3	21	32	198
Queue Length 95th (ft)	m3	339	10	75	13	48	50	#237
Internal Link Dist (ft)		1209		158		224		156
Turn Bay Length (ft)	150		150		75		75	
Base Capacity (vph)	584	932	124	943	124	574	397	574
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	1.01	0.09	0.24	0.10	0.19	0.30	1.00

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	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	12	277	10	102	10	32	36
v/c Ratio	0.02	0.30	0.02	0.11	0.02	0.05	0.06
Control Delay	7.8	9.7	6.0	6.0	12.6	7.9	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.8	9.7	6.0	6.0	12.6	7.9	9.8
Queue Length 50th (ft)	2	53	2	19	2	3	5
Queue Length 95th (ft)	8	63	m6	38	10	16	20
Internal Link Dist (ft)		721		318		186	883
Turn Bay Length (ft)	100		75		100		
Base Capacity (vph)	643	920	533	936	444	639	617
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	0.02	0.30	0.02	0.11	0.02	0.05	0.06

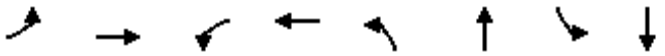
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	24	500	12	196	96	91
v/c Ratio	0.04	0.51	0.03	0.20	0.18	0.18
Control Delay	7.0	11.1	7.1	6.9	14.9	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.0	11.1	7.1	6.9	14.9	15.3
Queue Length 50th (ft)	4	102	2	28	22	21
Queue Length 95th (ft)	12	154	8	51	40	49
Internal Link Dist (ft)		284		719	378	233
Turn Bay Length (ft)	150		150			
Base Capacity (vph)	625	980	390	973	529	509
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	0.04	0.51	0.03	0.20	0.18	0.18

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	247	1212	235	330	153	294	12	411
v/c Ratio	0.73	1.04	0.94	0.33	0.89	0.46	0.10	0.97
Control Delay	47.0	67.3	84.8	27.4	88.4	24.6	41.6	71.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.0	67.3	84.8	27.4	88.4	24.6	41.6	71.3
Queue Length 50th (ft)	132	~386	134	77	88	113	7	226
Queue Length 95th (ft)	189	#467	#251	114	#185	205	23	#375
Internal Link Dist (ft)		595		701		896		459
Turn Bay Length (ft)	150		150		100		150	
Base Capacity (vph)	420	1165	249	998	171	644	118	425
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	1.04	0.94	0.33	0.89	0.46	0.10	0.97

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	NBT	SBT
Lane Group Flow (vph)	12	977	12	776	36	59
v/c Ratio	0.03	0.39	0.03	0.31	0.07	0.11
Control Delay	7.1	6.5	7.3	5.9	9.8	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	6.5	7.3	5.9	9.8	7.6
Queue Length 50th (ft)	1	39	1	28	3	3
Queue Length 95th (ft)	11	195	11	146	21	25
Internal Link Dist (ft)		701		338	884	889
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	625	3302	477	3286	1364	1391
Starvation Cap Reductn	0	0	0	95	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.30	0.03	0.24	0.03	0.04

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	24	600	12	847	36	59
v/c Ratio	0.05	0.21	0.02	0.30	0.06	0.10
Control Delay	7.3	5.2	7.1	5.6	7.8	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.3	5.2	7.1	5.6	7.8	6.1
Queue Length 50th (ft)	0	0	0	0	1	1
Queue Length 95th (ft)	18	112	11	166	19	22
Internal Link Dist (ft)		699		339	883	884
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	587	3332	748	3335	1384	1418
Starvation Cap Reductn	0	0	0	41	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.18	0.02	0.26	0.03	0.04

Intersection Summary

Lane Group	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	798	1011	66	160	74
v/c Ratio	0.45	1.76dl	0.16	0.47	0.16
Control Delay	3.7	50.7	6.2	14.5	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.7	50.7	6.2	14.5	3.7
Queue Length 50th (ft)	14	~85	4	23	0
Queue Length 95th (ft)	50	#247	11	48	13
Internal Link Dist (ft)	740	270	212	971	
Turn Bay Length (ft)					50
Base Capacity (vph)	1761	989	671	563	705
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	0.45	1.02	0.10	0.28	0.10

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.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	467	1043	369	190
v/c Ratio	0.49	0.71	0.60	0.31
Control Delay	10.4	10.8	14.1	3.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.4	10.8	14.1	3.3
Queue Length 50th (ft)	33	65	59	0
Queue Length 95th (ft)	69	130	104	21
Internal Link Dist (ft)	270	750	806	
Turn Bay Length (ft)				325
Base Capacity (vph)	1087	1647	820	761
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.43	0.63	0.45	0.25

Intersection Summary



Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SWL2
Lane Group Flow (vph)	553	117	477	238	1247	28	23
v/c Ratio	0.71	0.07	0.61	0.35	0.85	0.04	0.04
Control Delay	19.8	0.1	17.0	11.2	22.7	5.5	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	0.1	17.0	11.2	22.7	5.5	10.1
Queue Length 50th (ft)	148	0	121	44	193	1	4
Queue Length 95th (ft)	250	0	197	86	176	9	15
Internal Link Dist (ft)	530		1070		390		
Turn Bay Length (ft)						40	
Base Capacity (vph)	783	1583	783	686	1461	678	578
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	0.71	0.07	0.61	0.35	0.85	0.04	0.04

Intersection Summary



Lane Group	EBT	WBT	WBR	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	526	566	277	814	105	314	93
v/c Ratio	0.55	0.42	0.37	0.64	0.52	0.22	0.13
Control Delay	14.3	12.5	7.2	15.3	24.0	10.7	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.3	12.5	7.2	15.3	24.0	10.7	3.3
Queue Length 50th (ft)	62	65	27	103	24	32	0
Queue Length 95th (ft)	103	90	60	145	#69	52	19
Internal Link Dist (ft)	1070	560		504		596	
Turn Bay Length (ft)			40		70		85
Base Capacity (vph)	951	1346	750	1271	201	1451	716
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	0.42	0.37	0.64	0.52	0.22	0.13

Intersection Summary

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

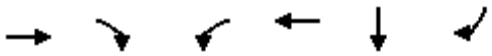
Lane Group	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	367	222	803	623
v/c Ratio	0.33	0.33	0.80	0.34
Control Delay	18.6	3.9	20.9	10.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	18.6	3.9	20.9	10.5
Queue Length 50th (ft)	65	0	103	68
Queue Length 95th (ft)	84	38	105	115
Internal Link Dist (ft)	277		340	540
Turn Bay Length (ft)		100		
Base Capacity (vph)	1388	779	1254	1844
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	8	0	132
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.29	0.64	0.36

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	32	383	451	37	333	726	71
v/c Ratio	0.13	0.39	0.45	0.08	0.34	0.70	0.08
Control Delay	11.2	10.6	22.2	6.7	9.8	15.8	4.2
Queue Delay	0.0	0.0	0.0	0.0	9.1	52.6	0.0
Total Delay	11.2	10.6	22.2	6.7	18.9	68.4	4.2
Queue Length 50th (ft)	3	22	83	0	72	208	5
Queue Length 95th (ft)	14	45	111	15	109	288	19
Internal Link Dist (ft)		340	361			110	
Turn Bay Length (ft)	100			50			50
Base Capacity (vph)	240	991	1001	490	981	1042	879
Starvation Cap Reductn	0	0	0	0	605	476	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	0.13	0.39	0.45	0.08	0.89	1.28	0.08

Intersection Summary



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	289	478	27	405	942	279
v/c Ratio	0.55	0.30	0.17	0.63	0.51	0.29
Control Delay	25.1	0.5	23.6	26.2	13.7	3.0
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay	25.1	0.5	23.6	26.3	13.7	3.0
Queue Length 50th (ft)	100	0	11	181	116	0
Queue Length 95th (ft)	163	0	m25	211	224	37
Internal Link Dist (ft)	322			290	610	
Turn Bay Length (ft)		110	200			150
Base Capacity (vph)	718	1583	265	1096	1862	966
Starvation Cap Reductn	0	0	0	114	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.30	0.10	0.41	0.51	0.29

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	NBT
Lane Group Flow (vph)	303	1333
v/c Ratio	0.62	0.45
Control Delay	12.3	9.1
Queue Delay	0.0	0.0
Total Delay	12.3	9.1
Queue Length 50th (ft)	12	104
Queue Length 95th (ft)	49	167
Internal Link Dist (ft)	290	625
Turn Bay Length (ft)		
Base Capacity (vph)	649	2979
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.47	0.45

Intersection Summary



Lane Group	WBL	SBT
Lane Group Flow (vph)	147	1416
v/c Ratio	0.51	0.38
Control Delay	21.4	5.2
Queue Delay	0.0	0.0
Total Delay	21.4	5.2
Queue Length 50th (ft)	26	89
Queue Length 95th (ft)	37	150
Internal Link Dist (ft)	265	624
Turn Bay Length (ft)		
Base Capacity (vph)	730	3708
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	21
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.20	0.38

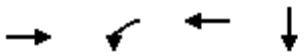
Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	23	276	122	293	1125	625
v/c Ratio	0.08	0.63	0.28	0.71	0.33	0.52
Control Delay	39.5	51.5	28.6	35.5	7.7	4.1
Queue Delay	0.0	0.2	0.0	0.0	0.9	2.0
Total Delay	39.5	51.6	28.6	35.5	8.5	6.1
Queue Length 50th (ft)	14	176	59	130	90	32
Queue Length 95th (ft)	m36	248	84	169	146	106
Internal Link Dist (ft)		265	346		185	
Turn Bay Length (ft)	175			150		
Base Capacity (vph)	499	768	768	683	3382	1207
Starvation Cap Reductn	0	103	0	0	1841	416
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.42	0.16	0.43	0.73	0.79

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	567	157	361	1247
v/c Ratio	0.60	0.59	0.21	0.65
Control Delay	24.1	31.6	20.2	20.5
Queue Delay	0.0	0.0	0.0	1.8
Total Delay	24.1	31.6	20.2	22.4
Queue Length 50th (ft)	107	74	84	153
Queue Length 95th (ft)	151	m112	m110	227
Internal Link Dist (ft)	400		250	176
Turn Bay Length (ft)		100		
Base Capacity (vph)	1049	379	2032	1933
Starvation Cap Reductn	0	0	0	492
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.54	0.41	0.18	0.87

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



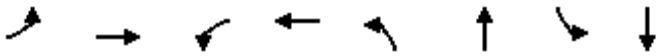
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	147	568	476	119	1559	35
v/c Ratio	0.47	0.27	0.38	0.19	1.09	0.07
Control Delay	26.2	2.6	17.8	4.3	79.5	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	2.6	17.8	4.3	79.5	1.5
Queue Length 50th (ft)	27	6	78	0	~283	0
Queue Length 95th (ft)	m84	27	106	26	#345	4
Internal Link Dist (ft)		250	510		555	
Turn Bay Length (ft)	75			125		150
Base Capacity (vph)	316	2082	1263	641	1428	500
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	0.47	0.27	0.38	0.19	1.09	0.07

Intersection Summary

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

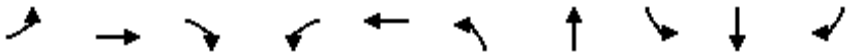
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	96	575	118	683	52	740	125	421
v/c Ratio	0.41	0.62	0.46	0.71	0.26	0.71	0.48	0.33
Control Delay	43.0	30.5	43.0	31.4	43.3	31.1	43.4	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.0	30.5	43.0	31.4	43.3	31.1	43.4	19.4
Queue Length 50th (ft)	44	130	55	155	24	170	58	72
Queue Length 95th (ft)	114	240	125	261	62	252	136	141
Internal Link Dist (ft)		430		410		410		430
Turn Bay Length (ft)	200		190		100		100	
Base Capacity (vph)	446	1653	446	1644	446	1650	446	1669
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.35	0.26	0.42	0.12	0.45	0.28	0.25

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	146	479	188	138	621	209	901	167	643	95
v/c Ratio	0.64	0.53	0.35	0.62	0.69	0.77	0.92	0.69	0.69	0.19
Control Delay	51.9	31.7	6.8	51.4	32.1	57.5	48.6	53.4	35.9	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.9	31.7	6.8	51.4	32.1	57.5	48.6	53.4	35.9	6.0
Queue Length 50th (ft)	82	125	2	77	153	115	263	93	180	0
Queue Length 95th (ft)	152	190	54	139	221	#239	#461	158	245	26
Internal Link Dist (ft)		420			420		420		420	
Turn Bay Length (ft)	200		100	200		200		200		75
Base Capacity (vph)	324	1097	618	324	1090	324	980	324	946	502
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	0.45	0.44	0.30	0.43	0.57	0.65	0.92	0.52	0.68	0.19

Intersection Summary

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



Lane Group	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	375	500	91	853
v/c Ratio	0.67	0.32	0.17	0.42
Control Delay	26.9	0.5	17.0	7.0
Queue Delay	0.0	0.0	0.0	0.4
Total Delay	26.9	0.5	17.0	7.4
Queue Length 50th (ft)	140	0	29	113
Queue Length 95th (ft)	193	0	50	167
Internal Link Dist (ft)	365		338	190
Turn Bay Length (ft)		250		
Base Capacity (vph)	785	1583	745	2035
Starvation Cap Reductn	0	0	0	600
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	0.32	0.12	0.59

Intersection Summary



Lane Group	EBL	NBT
Lane Group Flow (vph)	385	917
v/c Ratio	0.71	0.46
Control Delay	29.2	11.1
Queue Delay	0.0	0.3
Total Delay	29.2	11.4
Queue Length 50th (ft)	150	116
Queue Length 95th (ft)	213	141
Internal Link Dist (ft)	338	310
Turn Bay Length (ft)		
Base Capacity (vph)	686	1988
Starvation Cap Reductn	0	493
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.56	0.61

Intersection Summary



Lane Group	EBT	EBR	SBL	SBT
Lane Group Flow (vph)	274	202	419	767
v/c Ratio	0.28	0.44	0.34	0.36
Control Delay	19.3	18.3	0.7	5.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	19.3	18.3	0.7	5.8
Queue Length 50th (ft)	52	62	0	36
Queue Length 95th (ft)	45	65	0	92
Internal Link Dist (ft)	431			470
Turn Bay Length (ft)		25	150	
Base Capacity (vph)	2022	920	1232	2131
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.14	0.22	0.34	0.36

Intersection Summary



Lane Group	EBL	EBT	NBT	NBR
Lane Group Flow (vph)	271	424	614	1557
v/c Ratio	0.40	0.83	0.28	0.98
Control Delay	5.1	46.0	8.3	22.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.1	46.0	8.3	22.1
Queue Length 50th (ft)	0	221	79	0
Queue Length 95th (ft)	45	#311	78	0
Internal Link Dist (ft)		395	720	
Turn Bay Length (ft)				125
Base Capacity (vph)	704	538	2208	1583
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.38	0.79	0.28	0.98

Intersection Summary

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



Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	506	942	733	337
v/c Ratio	0.31	0.51	0.62	0.31
Control Delay	8.9	10.6	3.5	16.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	8.9	10.6	3.5	16.1
Queue Length 50th (ft)	50	106	0	45
Queue Length 95th (ft)	73	140	35	73
Internal Link Dist (ft)	222	438		520
Turn Bay Length (ft)			125	
Base Capacity (vph)	1633	1858	1175	1092
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.31	0.51	0.62	0.31

Intersection Summary



Lane Group	EBT	WBT	WBR	NBT	NBR2	SBL	SBT	SWR2
Lane Group Flow (vph)	212	101	861	732	28	211	306	40
v/c Ratio	0.50	0.24	0.81	1.08	0.07	0.31	0.43	0.21
Control Delay	35.2	31.1	19.9	96.6	0.3	24.4	26.0	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.2	31.1	19.9	96.6	0.3	24.4	26.0	2.4
Queue Length 50th (ft)	112	52	361	~264	0	91	139	0
Queue Length 95th (ft)	154	75	417	#252	0	171	246	0
Internal Link Dist (ft)	310	1100		571			552	
Turn Bay Length (ft)					75			
Base Capacity (vph)	543	547	1064	677	398	678	711	238
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.18	0.81	1.08	0.07	0.31	0.43	0.17

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.

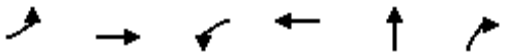


Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	348	11	462	182	193	118	634	118
v/c Ratio	0.44	0.03	0.58	1.34	0.25	0.16	0.82	0.16
Control Delay	13.3	9.9	16.0	217.5	3.0	11.5	26.8	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	9.9	16.0	217.5	3.0	11.5	26.8	3.3
Queue Length 50th (ft)	77	2	115	~85	0	25	187	0
Queue Length 95th (ft)	137	10	195	#184	29	52	#359	24
Internal Link Dist (ft)	1100		365				400	
Turn Bay Length (ft)		75			60	60		
Base Capacity (vph)	799	383	803	136	768	732	770	724
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.03	0.58	1.34	0.25	0.16	0.82	0.16

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	NBT	NBR
Lane Group Flow (vph)	357	514	14	842	1758	32
v/c Ratio	1.12	0.41	0.02	0.69	5.71	0.11
Control Delay	105.1	4.5	2.5	7.4	2135.0	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.1	4.5	2.5	7.4	2135.0	11.8
Queue Length 50th (ft)	~154	52	1	121	~1248	2
Queue Length 95th (ft)	#202	60	m2	118	#986	12
Internal Link Dist (ft)		365		1056	411	
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	318	1251	564	1220	308	286
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	1.12	0.41	0.02	0.69	5.71	0.11

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	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	528	329	116	733	105
v/c Ratio	0.63	0.39	0.17	0.54	0.16
Control Delay	16.2	12.5	12.8	15.8	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	12.5	12.8	15.8	3.7
Queue Length 50th (ft)	133	73	26	102	0
Queue Length 95th (ft)	212	118	53	140	22
Internal Link Dist (ft)	330	230		550	
Turn Bay Length (ft)			100		100
Base Capacity (vph)	843	846	685	1370	677
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	0.63	0.39	0.17	0.54	0.16

Intersection Summary



Lane Group	WBL	WBT	SBL	SBR	SET	NWT
Lane Group Flow (vph)	16	197	165	565	22	141
v/c Ratio	0.04	0.49	0.31	0.60	0.06	0.96
Control Delay	16.6	22.4	15.3	13.5	12.7	95.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.6	22.4	15.3	13.5	12.7	95.0
Queue Length 50th (ft)	4	48	35	52	2	39
Queue Length 95th (ft)	11	69	75	97	17	#155
Internal Link Dist (ft)		349	215		227	183
Turn Bay Length (ft)						
Base Capacity (vph)	398	419	736	1249	399	147
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	0.04	0.47	0.22	0.45	0.06	0.96

Intersection Summary

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



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	1081	522	231
v/c Ratio	0.61	0.86	0.37
Control Delay	11.7	32.5	14.5
Queue Delay	0.0	0.0	0.0
Total Delay	11.7	32.5	14.5
Queue Length 50th (ft)	127	196	51
Queue Length 95th (ft)	133	#346	65
Internal Link Dist (ft)	724	384	409
Turn Bay Length (ft)			
Base Capacity (vph)	1782	604	624
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.61	0.86	0.37

Intersection Summary

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



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	975	125	210	642	218
v/c Ratio	0.73	0.19	0.38	0.72	0.25
Control Delay	19.7	4.0	12.2	17.8	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	4.0	12.2	17.8	9.0
Queue Length 50th (ft)	149	1	44	166	37
Queue Length 95th (ft)	178	21	76	230	73
Internal Link Dist (ft)	724			395	398
Turn Bay Length (ft)		100	100		
Base Capacity (vph)	1329	671	555	893	885
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	0.73	0.19	0.38	0.72	0.25

Intersection Summary



Lane Group	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	385	859	51	1217	407
v/c Ratio	0.73	0.82	0.10	1.98	0.42
Control Delay	12.2	11.1	0.6	463.6	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	11.1	0.6	463.6	8.8
Queue Length 50th (ft)	34	40	1	~639	70
Queue Length 95th (ft)	m34	m38	m0	m#197	124
Internal Link Dist (ft)		314		377	420
Turn Bay Length (ft)	75		75		
Base Capacity (vph)	525	1049	497	614	958
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	0.73	0.82	0.10	1.98	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.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	1959	122	576	641
v/c Ratio	1.33	0.24	0.97dl	0.38
Control Delay	177.3	9.5	11.8	9.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	177.3	9.5	11.8	9.1
Queue Length 50th (ft)	~348	13	65	65
Queue Length 95th (ft)	#322	34	97	80
Internal Link Dist (ft)	328		377	547
Turn Bay Length (ft)		100		
Base Capacity (vph)	1471	510	1057	1684
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.33	0.24	0.54	0.38

Intersection Summary

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

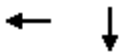
dl Defacto Left Lane. Recode with 1 though lane as a left lane.



Lane Group	WBT	WBR	NBT
Lane Group Flow (vph)	1050	1512	359
v/c Ratio	0.44	0.95	0.35
Control Delay	6.8	16.5	9.5
Queue Delay	0.0	0.0	0.0
Total Delay	6.8	16.5	9.5
Queue Length 50th (ft)	34	0	20
Queue Length 95th (ft)	72	#35	54
Internal Link Dist (ft)	182		384
Turn Bay Length (ft)			
Base Capacity (vph)	4486	1599	2636
Starvation Cap Reductn	215	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.25	0.95	0.14

Intersection Summary

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



Lane Group	WBT	SBT
Lane Group Flow (vph)	1046	1000
v/c Ratio	0.53	0.66
Control Delay	10.3	11.0
Queue Delay	0.0	0.0
Total Delay	10.3	11.0
Queue Length 50th (ft)	54	84
Queue Length 95th (ft)	109	152
Internal Link Dist (ft)	193	669
Turn Bay Length (ft)		
Base Capacity (vph)	2569	2406
Starvation Cap Reductn	213	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.44	0.42

Intersection Summary



Lane Group	EBT	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	26	585	202	379	261
v/c Ratio	0.04	0.75	0.25	0.66	0.40
Control Delay	5.2	18.2	2.5	20.0	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	5.2	18.2	2.5	20.0	14.3
Queue Length 50th (ft)	1	113	0	84	51
Queue Length 95th (ft)	9	268	27	139	115
Internal Link Dist (ft)	207	318		246	405
Turn Bay Length (ft)					
Base Capacity (vph)	983	1135	1096	902	1030
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	0.03	0.52	0.18	0.42	0.25

Intersection Summary

Lane Group	EBT	SBT
Lane Group Flow (vph)	741	1200
v/c Ratio	0.47	0.71
Control Delay	11.7	10.6
Queue Delay	0.0	0.0
Total Delay	11.7	10.6
Queue Length 50th (ft)	47	88
Queue Length 95th (ft)	67	137
Internal Link Dist (ft)	976	388
Turn Bay Length (ft)		
Base Capacity (vph)	2126	1901
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.35	0.63

Intersection Summary



Lane Group	EBT	NBT
Lane Group Flow (vph)	1330	446
v/c Ratio	0.57	0.51
Control Delay	7.3	10.9
Queue Delay	0.0	0.0
Total Delay	7.3	10.9
Queue Length 50th (ft)	43	32
Queue Length 95th (ft)	87	52
Internal Link Dist (ft)	196	515
Turn Bay Length (ft)		
Base Capacity (vph)	2544	1291
Starvation Cap Reductn	99	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.54	0.35

Intersection Summary

Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	1326	455	271
v/c Ratio	0.56	0.34	0.25
Control Delay	10.9	12.0	12.0
Queue Delay	0.7	0.0	0.0
Total Delay	11.7	12.0	12.0
Queue Length 50th (ft)	91	48	29
Queue Length 95th (ft)	150	63	47
Internal Link Dist (ft)	189	898	377
Turn Bay Length (ft)			
Base Capacity (vph)	2371	1595	1303
Starvation Cap Reductn	643	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.77	0.29	0.21

Intersection Summary



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	221	558	74	1038	346	165	306
v/c Ratio	0.39	0.49	0.13	2.43	0.75	1.40	1.75
Control Delay	18.2	18.1	2.6	666.9	25.5	244.4	380.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	18.1	2.6	666.9	25.5	244.4	380.1
Queue Length 50th (ft)	61	83	0	~641	70	~85	~176
Queue Length 95th (ft)	112	125	15	#419	54	m#148	m#282
Internal Link Dist (ft)		339		246			377
Turn Bay Length (ft)	100		150		100	75	
Base Capacity (vph)	572	1144	582	428	464	118	175
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	0.39	0.49	0.13	2.43	0.75	1.40	1.75

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	NBT	SBL	SBT
Lane Group Flow (vph)	1263	744	92	138
v/c Ratio	0.92	0.84	0.73	0.15
Control Delay	32.7	24.8	51.0	9.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	32.7	24.8	51.0	9.9
Queue Length 50th (ft)	248	242	28	29
Queue Length 95th (ft)	275	354	#102	54
Internal Link Dist (ft)	326	401		395
Turn Bay Length (ft)			100	
Base Capacity (vph)	1372	1011	143	1014
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.92	0.74	0.64	0.14

Intersection Summary

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

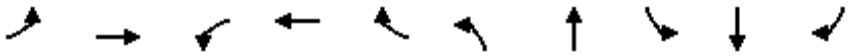
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	950	370	240
v/c Ratio	0.52	0.56	0.43
Control Delay	10.6	19.7	23.9
Queue Delay	0.0	0.0	0.0
Total Delay	10.6	19.7	23.9
Queue Length 50th (ft)	105	104	82
Queue Length 95th (ft)	126	179	116
Internal Link Dist (ft)	720	908	384
Turn Bay Length (ft)			
Base Capacity (vph)	1816	657	564
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.52	0.56	0.43

Intersection Summary

Lane Group	EBL	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	464	393	32	500	65
v/c Ratio	0.79	0.49	0.05	0.63	0.09
Control Delay	27.2	12.6	5.9	17.1	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	27.2	12.6	5.9	17.1	10.4
Queue Length 50th (ft)	134	77	2	128	13
Queue Length 95th (ft)	#249	128	14	166	32
Internal Link Dist (ft)		314	353	897	405
Turn Bay Length (ft)					
Base Capacity (vph)	586	804	677	798	751
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	0.79	0.49	0.05	0.63	0.09

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	SBL	SBT	SBR
Lane Group Flow (vph)	250	534	114	557	205	38	215	120	90	150
v/c Ratio	0.57	0.28	0.54	0.41	0.29	0.14	0.57	0.70	0.24	0.34
Control Delay	33.9	12.1	35.2	23.9	12.3	24.3	27.9	49.0	25.5	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	12.1	35.2	23.9	12.3	24.3	27.9	49.0	25.5	6.6
Queue Length 50th (ft)	104	70	58	70	7	15	76	53	36	0
Queue Length 95th (ft)	#215	125	m105	152	91	32	110	103	68	41
Internal Link Dist (ft)		899		337			250		199	
Turn Bay Length (ft)	120		120		55	115		125		125
Base Capacity (vph)	438	1887	320	1360	697	345	488	225	495	531
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	0.57	0.28	0.36	0.41	0.29	0.11	0.44	0.53	0.18	0.28

Intersection Summary

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

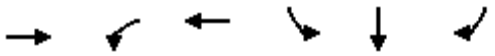
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	24	817	117	851	195	264	208	153	42
v/c Ratio	0.18	0.70	0.54	0.57	0.66	0.73	0.67	0.45	0.11
Control Delay	47.9	29.9	41.1	23.6	39.6	33.2	39.5	30.9	0.5
Queue Delay	0.0	30.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0
Total Delay	47.9	60.0	41.1	23.6	39.6	33.5	39.5	30.9	0.5
Queue Length 50th (ft)	12	190	55	126	87	84	93	64	0
Queue Length 95th (ft)	m28	#364	m100	#330	134	147	112	86	0
Internal Link Dist (ft)		337		168		395		179	
Turn Bay Length (ft)	100		125		100				
Base Capacity (vph)	321	1168	321	1495	554	381	554	361	413
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	387	0	0	0	8	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	1.05	0.36	0.57	0.35	0.71	0.38	0.42	0.10

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	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	901	500	628	404	427	360
v/c Ratio	1.03	1.08	0.31	0.78	0.78	0.55
Control Delay	60.2	96.7	8.8	37.0	36.7	10.2
Queue Delay	26.9	7.0	0.7	0.0	0.0	0.0
Total Delay	87.1	103.7	9.5	37.0	36.7	10.2
Queue Length 50th (ft)	~250	~270	73	174	183	34
Queue Length 95th (ft)	#345	#448	102	#303	#315	106
Internal Link Dist (ft)	168		218		367	
Turn Bay Length (ft)						
Base Capacity (vph)	874	461	2039	519	546	651
Starvation Cap Reductn	156	55	1026	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	1.25	1.23	0.62	0.78	0.78	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.

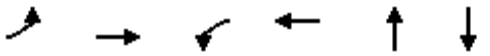


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	463	829	1035	767	634	285
v/c Ratio	1.29	0.37	0.75	1.03	0.72	0.57
Control Delay	184.4	10.1	31.6	64.8	36.5	17.3
Queue Delay	1.6	1.8	50.2	27.4	0.0	0.0
Total Delay	186.1	11.9	81.8	92.2	36.5	17.3
Queue Length 50th (ft)	~378	123	294	~438	192	69
Queue Length 95th (ft)	#499	164	384	#655	224	136
Internal Link Dist (ft)		218	178		514	
Turn Bay Length (ft)						
Base Capacity (vph)	359	2228	1379	745	1057	571
Starvation Cap Reductn	49	1183	557	160	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.49	0.79	1.26	1.31	0.60	0.50

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	NBT	SBT
Lane Group Flow (vph)	180	977	35	1306	436	309
v/c Ratio	1.43	0.55	0.15	0.71	1.11dl	0.37
Control Delay	253.5	11.8	12.1	15.4	21.6	16.0
Queue Delay	0.0	1.6	0.0	0.0	0.0	0.0
Total Delay	253.5	13.4	12.1	15.4	21.6	16.0
Queue Length 50th (ft)	~83	96	5	152	66	41
Queue Length 95th (ft)	#195	231	27	326	98	62
Internal Link Dist (ft)		178		725	576	898
Turn Bay Length (ft)	100		75			
Base Capacity (vph)	126	1782	235	1832	1376	1689
Starvation Cap Reductn	0	581	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	0.81	0.15	0.71	0.32	0.18

Intersection Summary

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

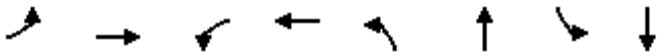
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	789	1430	203	670	34	353
v/c Ratio	0.55	0.98	0.27	0.53	0.12	0.23
Control Delay	16.9	43.2	4.7	14.3	13.7	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	43.2	4.7	14.3	13.7	13.3
Queue Length 50th (ft)	128	340	8	94	9	51
Queue Length 95th (ft)	182	#359	33	130	26	76
Internal Link Dist (ft)	725	611		888		412
Turn Bay Length (ft)			200		100	
Base Capacity (vph)	1425	1457	753	1447	333	1791
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	0.55	0.98	0.27	0.46	0.10	0.20

Intersection Summary

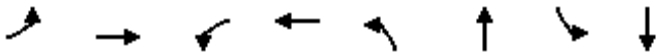
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	131	728	193	578	152	544	126	425
v/c Ratio	0.61	0.82	0.73	0.59	0.65	0.47	0.63	0.75
Control Delay	58.3	47.5	61.8	35.8	58.8	31.5	60.6	44.8
Queue Delay	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.3	48.9	61.8	35.8	58.8	31.5	60.6	44.8
Queue Length 50th (ft)	91	250	133	174	105	161	87	272
Queue Length 95th (ft)	148	326	189	218	166	230	142	#484
Internal Link Dist (ft)		338		729		891		406
Turn Bay Length (ft)	150		125		150		150	
Base Capacity (vph)	316	928	316	1003	316	1155	252	569
Starvation Cap Reductn	0	75	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.85	0.61	0.58	0.48	0.47	0.50	0.75

Intersection Summary

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



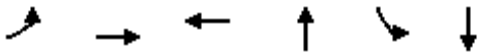
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	99	852	66	495	185	272	159	256
v/c Ratio	0.19	0.42	0.20	0.24	0.78	0.57	0.71	0.53
Control Delay	9.6	9.0	10.7	7.9	44.1	24.6	38.8	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	9.0	10.7	7.9	44.1	24.6	38.8	21.9
Queue Length 50th (ft)	16	83	11	43	69	93	58	79
Queue Length 95th (ft)	45	138	41	89	117	133	88	105
Internal Link Dist (ft)		729		707		887		908
Turn Bay Length (ft)	75		100		100		75	
Base Capacity (vph)	513	2043	326	2088	424	851	400	842
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.42	0.20	0.24	0.44	0.32	0.40	0.30

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	34	921	72	771	121	439	98	159	85
v/c Ratio	0.18	0.63	0.40	0.53	0.26	0.64	0.39	0.24	0.15
Control Delay	13.9	14.5	20.5	13.0	13.6	17.1	17.9	12.6	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.9	14.5	20.5	13.0	13.6	17.1	17.9	12.6	4.0
Queue Length 50th (ft)	6	100	14	77	23	87	19	29	0
Queue Length 95th (ft)	27	204	51	150	45	129	56	69	18
Internal Link Dist (ft)		707		320		887		416	
Turn Bay Length (ft)	100		100		100		100		75
Base Capacity (vph)	297	2235	272	2225	784	1144	445	1196	972
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	0.11	0.41	0.26	0.35	0.15	0.38	0.22	0.13	0.09

Intersection Summary



Lane Group	EBL	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	54	968	758	575	130	76
v/c Ratio	0.23	0.64	0.61	0.41	0.44	0.10
Control Delay	14.0	16.6	15.9	12.9	20.8	11.8
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	14.0	16.9	15.9	12.9	20.8	11.8
Queue Length 50th (ft)	12	141	104	74	38	16
Queue Length 95th (ft)	35	195	154	96	87	40
Internal Link Dist (ft)		320	512	890		897
Turn Bay Length (ft)	100				100	
Base Capacity (vph)	250	1642	1352	1399	296	769
Starvation Cap Reductn	0	222	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	0.22	0.68	0.56	0.41	0.44	0.10

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	12	167	268	273	235	12	470	928	370	315	11
v/c Ratio	0.05	0.67	0.63	0.63	0.41	0.15	0.68	1.06	0.91	0.21	0.01
Control Delay	47.1	62.1	50.2	50.4	7.5	64.4	51.1	72.6	72.9	23.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	62.1	50.2	50.4	7.5	64.4	51.1	72.6	72.9	23.2	0.0
Queue Length 50th (ft)	8	124	201	205	0	9	182	~736	281	71	0
Queue Length 95th (ft)	26	191	327	333	56	31	244	#973	#548	141	0
Internal Link Dist (ft)		390		1100			533			550	
Turn Bay Length (ft)	75		225			125		325	250		100
Base Capacity (vph)	268	281	427	431	577	208	895	876	447	1561	761
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.59	0.63	0.63	0.41	0.06	0.53	1.06	0.83	0.20	0.01

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	NBT	SBT
Lane Group Flow (vph)	32	344	218	551	649	760
v/c Ratio	0.25	0.56	0.86	0.90	0.44	0.64
Control Delay	20.0	18.8	53.4	38.5	8.0	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	18.8	53.4	38.5	8.0	12.6
Queue Length 50th (ft)	8	87	69	166	53	85
Queue Length 95th (ft)	28	158	#143	#260	86	110
Internal Link Dist (ft)		719		260	398	888
Turn Bay Length (ft)	50		50			
Base Capacity (vph)	130	613	253	614	1481	1188
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	0.25	0.56	0.86	0.90	0.44	0.64

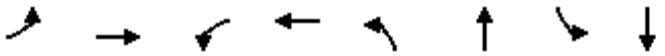
Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	93	547	56	618	105	395	163	233	198
v/c Ratio	0.31	0.35	0.16	0.39	0.23	0.53	0.52	0.31	0.26
Control Delay	13.8	9.9	11.2	7.4	12.8	15.2	20.1	12.9	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	9.9	11.2	7.4	12.8	15.2	20.1	12.9	3.1
Queue Length 50th (ft)	19	52	11	42	22	91	40	51	0
Queue Length 95th (ft)	46	78	30	70	42	126	87	90	28
Internal Link Dist (ft)		260		699		877		883	
Turn Bay Length (ft)	85		100		75		100		100
Base Capacity (vph)	304	1551	340	1600	453	749	313	755	759
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	0.31	0.35	0.16	0.39	0.23	0.53	0.52	0.31	0.26

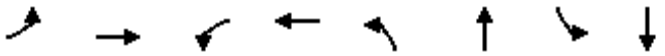
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	58	698	64	859	69	459	181	489
v/c Ratio	0.37	0.66	0.40	0.81	0.42	0.46	0.68	0.72
Control Delay	44.6	30.6	44.8	34.3	45.1	26.4	47.8	32.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	30.6	44.8	34.3	45.1	26.4	47.8	32.2
Queue Length 50th (ft)	30	175	33	218	36	102	93	226
Queue Length 95th (ft)	66	247	64	264	76	155	168	#423
Internal Link Dist (ft)		339		739		884		891
Turn Bay Length (ft)	150		140		100		100	
Base Capacity (vph)	352	1052	352	1063	352	1306	352	687
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.66	0.18	0.81	0.20	0.35	0.51	0.71

Intersection Summary

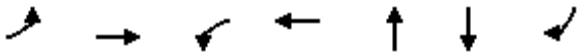
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	116	907	74	537	65	120	153	644
v/c Ratio	0.29	0.53	0.33	0.31	0.47	0.18	0.34	0.98
Control Delay	11.1	11.1	14.0	8.9	28.1	12.2	15.7	52.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	11.1	14.0	8.9	28.1	12.2	15.7	52.0
Queue Length 50th (ft)	21	96	14	49	16	24	35	187
Queue Length 95th (ft)	47	131	42	76	#60	53	44	159
Internal Link Dist (ft)		739		700		1849		887
Turn Bay Length (ft)	75		75		100		50	
Base Capacity (vph)	394	1697	221	1712	138	652	445	654
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.53	0.33	0.31	0.47	0.18	0.34	0.98

Intersection Summary

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



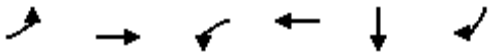
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	70	1012	34	655	386	328	71
v/c Ratio	0.21	0.58	0.18	0.38	0.55	0.80	0.12
Control Delay	10.8	12.4	11.7	10.1	15.4	35.2	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	12.4	11.7	10.1	15.4	35.2	4.4
Queue Length 50th (ft)	13	124	6	70	83	102	0
Queue Length 95th (ft)	33	163	22	98	138	133	12
Internal Link Dist (ft)		700		324	1841	887	
Turn Bay Length (ft)	60		75				75
Base Capacity (vph)	334	1757	184	1738	696	408	583
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	0.21	0.58	0.18	0.38	0.55	0.80	0.12

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	39	1377	12	662	50	48	157	120	76	109
v/c Ratio	0.09	0.63	0.08	0.31	0.05	0.17	0.39	0.32	0.29	0.26
Control Delay	8.3	10.8	9.8	7.5	3.2	18.5	21.5	15.5	20.6	14.5
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	11.3	9.8	7.5	3.2	18.5	21.5	15.5	20.6	14.5
Queue Length 50th (ft)	4	122	1	44	0	14	47	24	22	22
Queue Length 95th (ft)	22	273	12	118	13	31	79	52	49	52
Internal Link Dist (ft)		324		505			1849			890
Turn Bay Length (ft)	75				75	50		50	100	
Base Capacity (vph)	450	2203	159	2161	986	534	777	681	511	761
Starvation Cap Reductn	0	385	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	0.09	0.76	0.08	0.31	0.05	0.09	0.20	0.18	0.15	0.14

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	42	1667	168	748	414	43
v/c Ratio	0.10	0.72	1.62	0.32	0.88	0.10
Control Delay	10.0	16.9	339.6	10.1	65.0	20.3
Queue Delay	0.0	0.0	0.0	0.9	0.0	0.0
Total Delay	10.0	16.9	339.6	11.0	65.0	20.3
Queue Length 50th (ft)	12	444	~115	130	327	13
Queue Length 95th (ft)	24	381	#272	179	313	29
Internal Link Dist (ft)		324		303	295	
Turn Bay Length (ft)	100		175			50
Base Capacity (vph)	417	2316	104	2313	542	484
Starvation Cap Reductn	0	0	0	1205	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.72	1.62	0.68	0.76	0.09

Intersection Summary

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

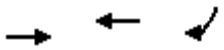
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1348	278	312	636	412
v/c Ratio	0.71	0.15	0.56	0.55	0.55
Control Delay	19.8	11.8	22.4	20.8	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	11.8	22.4	20.8	5.8
Queue Length 50th (ft)	202	27	136	139	0
Queue Length 95th (ft)	#567	83	117	100	67
Internal Link Dist (ft)	1100	380		1000	
Turn Bay Length (ft)			200		225
Base Capacity (vph)	1899	1900	1131	2334	808
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	0.71	0.15	0.28	0.27	0.51

Intersection Summary

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



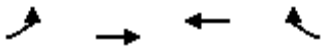
Lane Group	EBT	WBT	SBR
Lane Group Flow (vph)	1667	533	418
v/c Ratio	0.47	0.25	0.42
Control Delay	0.5	16.1	33.1
Queue Delay	0.0	0.0	0.1
Total Delay	0.5	16.1	33.2
Queue Length 50th (ft)	0	136	153
Queue Length 95th (ft)	0	186	196
Internal Link Dist (ft)	303	471	
Turn Bay Length (ft)			
Base Capacity (vph)	3534	2130	2041
Starvation Cap Reductn	0	0	588
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.47	0.25	0.29

Intersection Summary



Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1076	568	391	137	337
v/c Ratio	0.89	0.39	0.34	0.13	0.35
Control Delay	33.8	0.8	30.4	10.2	7.3
Queue Delay	48.3	0.0	1.6	0.0	0.8
Total Delay	82.1	0.8	32.0	10.2	8.1
Queue Length 50th (ft)	291	0	134	39	59
Queue Length 95th (ft)	260	0	186	67	111
Internal Link Dist (ft)	471		185	347	
Turn Bay Length (ft)		100			100
Base Capacity (vph)	1273	1441	1233	1112	1047
Starvation Cap Reductn	0	0	648	0	0
Spillback Cap Reductn	320	0	0	0	425
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.13	0.39	0.67	0.12	0.54

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR
Lane Group Flow (vph)	1047	977	303	697
v/c Ratio	1.13	0.28	0.22	0.44
Control Delay	99.2	0.2	15.8	0.9
Queue Delay	0.9	0.0	0.0	0.0
Total Delay	100.1	0.2	15.8	0.9
Queue Length 50th (ft)	~847	0	50	0
Queue Length 95th (ft)	#1017	0	66	2
Internal Link Dist (ft)		380	250	
Turn Bay Length (ft)	200			125
Base Capacity (vph)	924	3539	1537	1583
Starvation Cap Reductn	140	0	0	0
Spillback Cap Reductn	0	138	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.34	0.29	0.20	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.
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Lane Group	EBT	WBT	WBR	SEL
Lane Group Flow (vph)	896	885	489	955
v/c Ratio	0.66	0.63	0.34	0.53
Control Delay	35.2	16.3	0.6	17.8
Queue Delay	12.6	0.0	0.0	0.7
Total Delay	47.8	16.4	0.6	18.5
Queue Length 50th (ft)	297	150	0	219
Queue Length 95th (ft)	305	217	0	268
Internal Link Dist (ft)	185	745		250
Turn Bay Length (ft)			150	
Base Capacity (vph)	1537	1551	1441	1792
Starvation Cap Reductn	627	0	0	470
Spillback Cap Reductn	0	32	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.98	0.58	0.34	0.72

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	477	988	209	121	846	476	690	119	384	465	116
v/c Ratio	0.85	0.76	0.33	0.47	0.87	0.98	0.77	0.26	0.77	0.51	0.23
Control Delay	63.7	37.8	18.0	59.5	49.6	88.0	46.8	13.9	59.4	38.2	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.7	37.8	18.0	59.5	49.6	88.0	46.8	13.9	59.4	38.2	7.0
Queue Length 50th (ft)	187	345	64	47	318	~206	261	20	149	160	0
Queue Length 95th (ft)	#263	444	129	80	#454	#298	310	60	198	200	39
Internal Link Dist (ft)		745			420		460			480	
Turn Bay Length (ft)	150		110	150		150		90	150		125
Base Capacity (vph)	605	1301	636	605	1046	484	1061	535	605	1186	607
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.76	0.33	0.20	0.81	0.98	0.65	0.22	0.63	0.39	0.19

Intersection Summary

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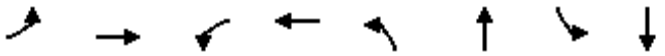
Lane Group	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	211	263	205	60	239	284
v/c Ratio	0.50	0.46	0.41	0.13	0.55	0.26
Control Delay	23.9	6.2	20.2	6.3	25.4	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	6.2	20.2	6.3	25.4	6.2
Queue Length 50th (ft)	53	0	49	0	60	33
Queue Length 95th (ft)	139	0	121	21	171	90
Internal Link Dist (ft)	721		891			877
Turn Bay Length (ft)				100	150	
Base Capacity (vph)	1073	1058	1122	977	710	1723
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	0.20	0.25	0.18	0.06	0.34	0.16

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	71	262	164	247	136	386	99	330	55
v/c Ratio	0.18	0.35	0.43	0.35	0.30	0.43	0.24	0.37	0.07
Control Delay	12.7	5.7	18.1	13.5	11.8	11.9	11.3	11.4	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	5.7	18.1	13.5	11.8	11.9	11.3	11.4	3.2
Queue Length 50th (ft)	15	11	43	54	28	82	20	70	0
Queue Length 95th (ft)	33	45	68	78	60	137	47	122	15
Internal Link Dist (ft)		318		327		884		884	
Turn Bay Length (ft)	50		100		100		25		50
Base Capacity (vph)	396	743	383	701	453	888	405	894	788
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	0.18	0.35	0.43	0.35	0.30	0.43	0.24	0.37	0.07

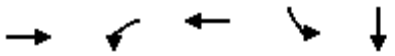
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	234	1078	80	851	11	114	106	318
v/c Ratio	0.85	0.59	0.45	0.47	0.04	0.20	0.25	0.50
Control Delay	44.8	11.5	19.2	9.7	14.7	7.9	17.2	10.9
Queue Delay	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0
Total Delay	44.8	11.5	19.2	10.9	14.7	7.9	17.2	10.9
Queue Length 50th (ft)	66	128	17	88	3	10	28	39
Queue Length 95th (ft)	#150	141	53	121	12	38	57	89
Internal Link Dist (ft)		522		182		395		398
Turn Bay Length (ft)	75		90		100		150	
Base Capacity (vph)	275	1836	178	1811	274	563	416	632
Starvation Cap Reductn	0	0	0	690	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.59	0.45	0.76	0.04	0.20	0.25	0.50

Intersection Summary

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



Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	1054	309	532	245	341
v/c Ratio	0.64	1.75	0.32	0.43	0.58
Control Delay	12.2	377.1	9.2	14.7	13.0
Queue Delay	1.2	0.0	0.2	0.0	0.0
Total Delay	13.4	377.1	9.4	14.7	13.0
Queue Length 50th (ft)	97	~127	41	48	47
Queue Length 95th (ft)	207	#255	93	103	116
Internal Link Dist (ft)	182		196		582
Turn Bay Length (ft)		100			
Base Capacity (vph)	1651	177	1671	1506	1371
Starvation Cap Reductn	358	0	474	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.82	1.75	0.44	0.16	0.25

Intersection Summary

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

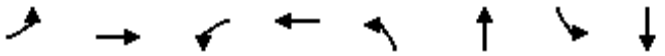
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	479	670	1472	119	237
v/c Ratio	0.91	0.24	0.94	0.51	0.58
Control Delay	52.3	3.2	32.9	42.2	10.8
Queue Delay	51.1	0.7	0.0	0.0	0.0
Total Delay	103.4	3.9	32.9	42.2	10.8
Queue Length 50th (ft)	241	38	330	60	0
Queue Length 95th (ft)	#455	73	#531	70	0
Internal Link Dist (ft)		196	190	795	
Turn Bay Length (ft)	75				575
Base Capacity (vph)	547	2778	1566	339	493
Starvation Cap Reductn	168	1677	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.26	0.61	0.94	0.35	0.48

Intersection Summary

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

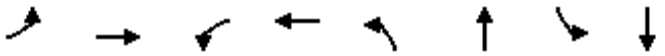


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	106	713	118	1377	86	409	385	451
v/c Ratio	0.95	0.36	0.34	0.71	0.55	0.67	2.03	0.73
Control Delay	96.9	10.4	13.1	15.0	37.6	27.8	501.3	28.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.9	10.4	13.1	15.0	37.6	27.8	501.3	28.8
Queue Length 50th (ft)	46	95	30	234	35	164	~306	173
Queue Length 95th (ft)	#150	130	61	280	#95	262	#472	284
Internal Link Dist (ft)		717		601		405		398
Turn Bay Length (ft)	75		100		125		125	
Base Capacity (vph)	112	1958	349	1936	157	615	190	618
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.36	0.34	0.71	0.55	0.67	2.03	0.73

Intersection Summary

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95th percentile volume exceeds capacity, queue may be longer.
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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	22	1077	64	1043	202	48	161	242
v/c Ratio	0.18	0.69	0.22	0.50	0.88	0.10	0.46	0.51
Control Delay	42.5	22.5	16.4	4.4	67.4	14.8	32.0	30.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	22.5	16.4	4.4	67.4	14.8	32.0	30.7
Queue Length 50th (ft)	12	252	23	54	106	10	74	108
Queue Length 95th (ft)	35	341	m25	m84	#194	32	84	111
Internal Link Dist (ft)		320		718		423		402
Turn Bay Length (ft)	100		150		100		100	
Base Capacity (vph)	236	1572	334	2066	263	522	396	541
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.69	0.19	0.50	0.77	0.09	0.41	0.45

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.



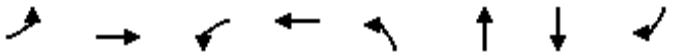
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	55	890	100	1213	230	299	80	212	471
v/c Ratio	0.31	0.70	0.59	0.97	0.99	0.39	0.11	0.54	0.61
Control Delay	28.2	17.2	70.1	46.7	84.4	19.8	1.8	25.0	23.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	17.2	70.1	46.7	84.4	19.8	1.8	25.0	23.0
Queue Length 50th (ft)	24	106	61	~386	122	112	0	84	189
Queue Length 95th (ft)	m42	225	m98	#303	#258	169	12	142	263
Internal Link Dist (ft)		718		725		385			884
Turn Bay Length (ft)	140		150		90		50	100	
Base Capacity (vph)	196	1276	196	1256	244	803	747	409	812
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	0.28	0.70	0.51	0.97	0.94	0.37	0.11	0.52	0.58

Intersection Summary

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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.



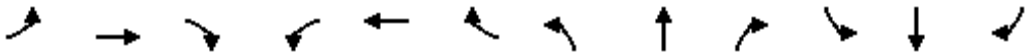
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	11	1000	62	1259	76	131	704	25
v/c Ratio	0.06	0.46	0.23	0.58	0.93	0.25	1.34	0.05
Control Delay	10.3	9.9	16.0	17.5	118.1	25.0	193.1	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	9.9	16.0	17.5	118.1	25.0	193.1	14.8
Queue Length 50th (ft)	2	116	22	277	42	55	~526	4
Queue Length 95th (ft)	m4	194	m40	278	#130	101	#634	20
Internal Link Dist (ft)		725		706		930	1849	
Turn Bay Length (ft)	75		225		100			75
Base Capacity (vph)	183	2186	272	2184	82	534	527	464
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.46	0.23	0.58	0.93	0.25	1.34	0.05

Intersection Summary

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m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	54	739	120	11	730	56	190	228	23	129	186	243
v/c Ratio	0.37	0.32	0.11	0.09	0.36	0.06	0.89	0.75	0.06	0.71	0.43	0.46
Control Delay	38.7	5.5	3.3	57.5	7.7	1.4	70.1	46.0	0.8	54.8	32.7	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	5.5	3.3	57.5	7.8	1.4	70.1	46.0	0.8	54.8	32.7	9.6
Queue Length 50th (ft)	29	94	10	6	131	1	108	125	0	67	89	16
Queue Length 95th (ft)	m53	m161	m48	m17	m182	m10	#222	#220	0	96	114	35
Internal Link Dist (ft)		706			318			380			1841	
Turn Bay Length (ft)	200		75	100		150	175			75		50
Base Capacity (vph)	196	2308	1067	196	2016	929	224	316	431	189	451	540
Starvation Cap Reductn	0	0	0	0	378	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	0.28	0.32	0.11	0.06	0.45	0.06	0.85	0.72	0.05	0.68	0.41	0.45

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.

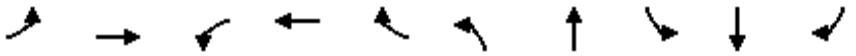


Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBT
Lane Group Flow (vph)	88	736	839	49	73	146	326
v/c Ratio	0.25	0.32	0.37	0.13	0.15	0.28	0.94
Control Delay	5.0	3.6	7.6	25.6	25.6	6.0	67.4
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	3.7	7.6	25.6	25.6	6.0	67.4
Queue Length 50th (ft)	10	46	101	21	31	0	166
Queue Length 95th (ft)	m16	44	128	44	59	33	#330
Internal Link Dist (ft)		318	536		268		1849
Turn Bay Length (ft)	100						
Base Capacity (vph)	359	2267	2280	398	513	541	358
Starvation Cap Reductn	0	565	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	0.25	0.43	0.37	0.12	0.14	0.27	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
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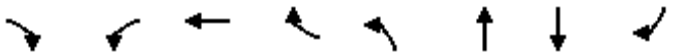
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	234	809	39	649	429	11	319	236	202	157
v/c Ratio	0.80	0.42	0.29	0.45	0.65	0.04	0.33	0.90	0.39	0.28
Control Delay	57.2	15.5	44.2	22.2	12.3	20.7	24.8	65.0	27.3	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.2	15.5	44.2	22.2	12.3	20.7	24.8	65.0	27.3	5.0
Queue Length 50th (ft)	126	152	22	145	52	4	71	126	91	0
Queue Length 95th (ft)	#235	240	44	175	82	16	98	#222	137	38
Internal Link Dist (ft)		420		420			420		420	
Turn Bay Length (ft)	275		125		75	75		175		
Base Capacity (vph)	320	1920	196	1456	752	350	1228	332	649	654
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	0.42	0.20	0.45	0.57	0.03	0.26	0.71	0.31	0.24

Intersection Summary

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



Lane Group	EBR	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	20	250	34	398	26	295	316	13
v/c Ratio	0.03	0.54	0.07	0.39	0.20	0.25	0.30	0.01
Control Delay	0.1	31.8	21.9	3.4	42.9	9.1	9.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	31.8	21.9	3.4	42.9	9.1	9.4	0.2
Queue Length 50th (ft)	0	124	15	0	14	64	58	0
Queue Length 95th (ft)	0	160	31	27	34	119	92	m1
Internal Link Dist (ft)			974			434	380	
Turn Bay Length (ft)		250		250	125			125
Base Capacity (vph)	805	885	931	1592	236	1187	1050	923
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.28	0.04	0.25	0.11	0.25	0.30	0.01

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	554	543	663	128
v/c Ratio	0.99	0.42	1.11	0.09
Control Delay	77.9	5.1	86.5	3.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	77.9	5.1	86.5	3.3
Queue Length 50th (ft)	185	92	~485	17
Queue Length 95th (ft)	#260	121	#264	29
Internal Link Dist (ft)	730	349		930
Turn Bay Length (ft)			100	
Base Capacity (vph)	560	1283	598	1415
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.99	0.42	1.11	0.09

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	SBT
Lane Group Flow (vph)	111	407	140	314	975
v/c Ratio	0.35	0.66	0.68	0.25	0.81
Control Delay	26.5	8.8	27.5	4.4	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.5	8.8	27.5	4.4	12.7
Queue Length 50th (ft)	40	0	20	29	133
Queue Length 95th (ft)	71	41	#127	74	279
Internal Link Dist (ft)	552			267	182
Turn Bay Length (ft)		400	100		
Base Capacity (vph)	549	772	250	1502	1429
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	0.20	0.53	0.56	0.21	0.68

Intersection Summary

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

Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	1070	88	412	110
v/c Ratio	1.10	0.13	0.40	0.12
Control Delay	83.0	7.4	9.6	6.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	83.0	7.4	9.6	6.7
Queue Length 50th (ft)	~237	14	79	16
Queue Length 95th (ft)	#326	11	39	36
Internal Link Dist (ft)	323		385	393
Turn Bay Length (ft)		100		
Base Capacity (vph)	976	703	1026	929
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.10	0.13	0.40	0.12

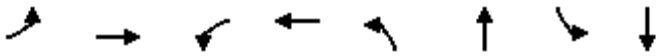
Intersection Summary

~ 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	NBT	SBL	SBT
Lane Group Flow (vph)	1209	130	96	35
v/c Ratio	0.63	0.22	0.18	0.06
Control Delay	11.2	10.8	16.8	15.8
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	11.4	10.8	16.8	15.8
Queue Length 50th (ft)	142	17	23	8
Queue Length 95th (ft)	181	54	57	28
Internal Link Dist (ft)	315	889		385
Turn Bay Length (ft)			100	
Base Capacity (vph)	2368	1197	1147	1255
Starvation Cap Reductn	292	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.58	0.11	0.08	0.03

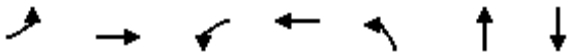
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	69	379	13	531	117	415	29	101
v/c Ratio	0.20	0.40	0.03	0.57	0.29	0.72	0.16	0.18
Control Delay	11.8	11.3	7.6	12.5	18.2	27.1	17.6	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.8	11.3	7.6	12.5	18.2	27.1	17.6	10.8
Queue Length 50th (ft)	12	71	2	114	32	129	7	15
Queue Length 95th (ft)	38	145	8	157	69	#248	19	30
Internal Link Dist (ft)		1056		442		145		118
Turn Bay Length (ft)	150		150		75		75	
Base Capacity (vph)	342	937	469	936	399	575	187	570
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.40	0.03	0.57	0.29	0.72	0.16	0.18

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	12	152	30	360	10	32	36
v/c Ratio	0.03	0.17	0.05	0.38	0.02	0.05	0.06
Control Delay	7.9	8.3	10.1	12.8	12.4	7.9	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.9	8.3	10.1	12.8	12.4	7.9	9.8
Queue Length 50th (ft)	2	26	5	67	2	3	5
Queue Length 95th (ft)	9	53	12	79	10	16	20
Internal Link Dist (ft)		721		318		186	883
Turn Bay Length (ft)	100		75		100		
Base Capacity (vph)	449	902	627	946	511	639	617
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	0.03	0.17	0.05	0.38	0.02	0.05	0.06

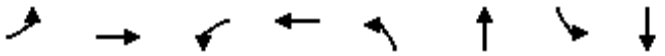
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	24	244	36	639	167	193
v/c Ratio	0.17	0.32	0.08	0.84	0.23	0.27
Control Delay	15.1	12.8	11.3	27.5	11.3	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.1	12.8	11.3	27.5	11.3	8.8
Queue Length 50th (ft)	5	54	8	187	33	28
Queue Length 95th (ft)	18	88	21	#316	63	65
Internal Link Dist (ft)		197		719	275	253
Turn Bay Length (ft)	40		150			
Base Capacity (vph)	139	764	461	761	725	722
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	0.17	0.32	0.08	0.84	0.23	0.27

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	106	717	141	1012	271	600	12	482
v/c Ratio	0.80	0.80	0.82	1.02	0.90	0.71	0.10	0.94
Control Delay	81.3	36.7	74.7	66.3	69.1	23.7	41.5	56.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.3	36.7	74.7	66.3	69.1	23.7	41.5	56.5
Queue Length 50th (ft)	61	187	80	~327	152	223	7	237
Queue Length 95th (ft)	#138	236	#167	#411	#267	#429	23	#384
Internal Link Dist (ft)		611		685		883		423
Turn Bay Length (ft)	150		150		100		150	
Base Capacity (vph)	133	901	173	995	308	850	120	531
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.80	0.82	1.02	0.88	0.71	0.10	0.91

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	NBT	SBT
Lane Group Flow (vph)	12	976	12	800	177	48
v/c Ratio	0.03	0.46	0.04	0.38	0.34	0.09
Control Delay	8.0	8.6	8.3	7.9	14.0	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.0	8.6	8.3	7.9	14.0	10.1
Queue Length 50th (ft)	1	58	1	45	27	5
Queue Length 95th (ft)	11	194	11	153	86	27
Internal Link Dist (ft)		685		338	884	889
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	560	3252	432	3252	1390	1441
Starvation Cap Reductn	0	0	0	95	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.30	0.03	0.25	0.13	0.03

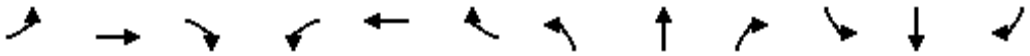
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	35	753	12	730	36	59
v/c Ratio	0.06	0.27	0.02	0.27	0.06	0.10
Control Delay	7.1	5.4	7.2	5.2	7.6	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	5.4	7.2	5.2	7.6	6.0
Queue Length 50th (ft)	0	0	0	0	1	1
Queue Length 95th (ft)	23	144	11	134	19	22
Internal Link Dist (ft)		699		339	883	884
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	658	3335	644	3263	1384	1418
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	0.05	0.23	0.02	0.22	0.03	0.04

Intersection Summary

APPENDIX F-1:
TECHNICAL CALCULATIONS –
CUMULATIVE CONDITIONS
INTERSECTION LOS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	650	1060	160	410	0	10	0	20	440	0	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0			4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	0.95			1.00			1.00	1.00
Frt		1.00	0.85	1.00	1.00			0.91			1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00			0.98			0.95	1.00
Satd. Flow (prot)		1727	1468	1641	3282			1584			1752	1468
Flt Permitted		1.00	1.00	0.20	1.00			0.87			0.74	1.00
Satd. Flow (perm)		1727	1468	342	3282			1407			1357	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	707	1152	168	432	0	11	0	22	478	0	43
RTOR Reduction (vph)	0	0	529	0	0	0	0	14	0	0	0	13
Lane Group Flow (vph)	0	707	623	168	432	0	0	19	0	0	478	30
Heavy Vehicles (%)	2%	10%	10%	10%	10%	2%	2%	2%	10%	3%	2%	10%
Turn Type		NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases			4	8			2			6		6
Actuated Green, G (s)		37.2	37.2	37.2	37.2			27.0			27.0	27.0
Effective Green, g (s)		37.2	37.2	37.2	37.2			27.0			27.0	27.0
Actuated g/C Ratio		0.52	0.52	0.52	0.52			0.37			0.37	0.37
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0			4.0	4.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)		889	756	176	1691			526			507	548
v/s Ratio Prot		0.41			0.13							
v/s Ratio Perm			0.42	c0.49				0.01			c0.35	0.02
v/c Ratio		0.80	0.82	0.95	0.26			0.04			0.94	0.05
Uniform Delay, d1		14.4	14.7	16.7	9.8			14.3			21.9	14.4
Progression Factor		1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2		5.0	7.3	54.2	0.1			0.0			26.2	0.0
Delay (s)		19.3	22.0	70.9	9.8			14.4			48.1	14.5
Level of Service		B	C	E	A			B			D	B
Approach Delay (s)		21.0			26.9			14.4			45.3	
Approach LOS		C			C			B			D	

Intersection Summary			
HCM 2000 Control Delay	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	72.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	108.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

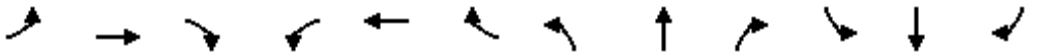
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	1070	0	0	320	430	250	0	330	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0	4.0			
Lane Util. Factor		0.95			0.95			1.00	1.00			
Frt		1.00			0.91			1.00	0.85			
Flt Protected		1.00			1.00			0.95	1.00			
Satd. Flow (prot)		3334			3000			1641	1468			
Flt Permitted		0.91			1.00			0.95	1.00			
Satd. Flow (perm)		3029			3000			1641	1468			
Peak-hour factor, PHF	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	1163	0	0	337	453	272	0	359	0	0	0
RTOR Reduction (vph)	0	0	0	0	233	0	0	0	33	0	0	0
Lane Group Flow (vph)	0	1206	0	0	557	0	0	272	326	0	0	0
Heavy Vehicles (%)	10%	8%	2%	2%	10%	10%	10%	2%	10%	2%	2%	2%
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Actuated Green, G (s)		25.6			25.6			19.1	19.1			
Effective Green, g (s)		25.6			25.6			19.1	19.1			
Actuated g/C Ratio		0.49			0.49			0.36	0.36			
Clearance Time (s)		4.0			4.0			4.0	4.0			
Vehicle Extension (s)		3.0			3.0			3.0	3.0			
Lane Grp Cap (vph)		1471			1457			594	532			
v/s Ratio Prot					0.19							
v/s Ratio Perm		c0.40						0.17	c0.22			
v/c Ratio		0.82			0.38			0.46	0.61			
Uniform Delay, d1		11.6			8.6			12.8	13.8			
Progression Factor		1.00			1.00			1.00	1.00			
Incremental Delay, d2		3.7			0.2			2.5	5.2			
Delay (s)		15.3			8.7			15.4	19.0			
Level of Service		B			A			B	B			
Approach Delay (s)		15.3			8.7			17.4			0.0	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	52.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.3%	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	210	300	710	460	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	0.97		1.00	1.00	0.97	
Flt Protected	1.00		0.95	1.00	0.96	
Satd. Flow (prot)	3436		1770	3539	1740	
Flt Permitted	1.00		0.25	1.00	0.96	
Satd. Flow (perm)	3436		466	3539	1740	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	946	228	326	772	500	141
RTOR Reduction (vph)	52	0	0	0	26	0
Lane Group Flow (vph)	1122	0	326	772	615	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	4			8	2	
Permitted Phases			8			
Actuated Green, G (s)	16.0		16.0	16.0	15.5	
Effective Green, g (s)	16.0		16.0	16.0	15.5	
Actuated g/C Ratio	0.41		0.41	0.41	0.39	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1391		188	1433	682	
v/s Ratio Prot	0.33			0.22	c0.35	
v/s Ratio Perm			c0.70			
v/c Ratio	0.81		1.73	0.54	0.90	
Uniform Delay, d1	10.4		11.8	8.9	11.3	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	3.5		351.6	0.4	15.2	
Delay (s)	13.9		363.3	9.3	26.5	
Level of Service	B		F	A	C	
Approach Delay (s)	13.9			114.4	26.5	
Approach LOS	B			F	C	

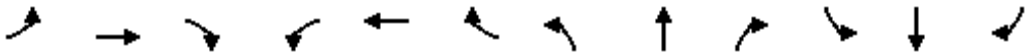
Intersection Summary			
HCM 2000 Control Delay	54.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	39.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	330	290	260	50	270	130	130	90	20	380	320	590
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.9		4.0	4.9	4.9	4.1	4.1		4.1	4.1	4.1
Lane Util. Factor	0.97	0.95		1.00	1.00	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	0.93		1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3400	3093		1703	1743	1568	3242	3315		1736	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.52	1.00		0.68	1.00	1.00
Satd. Flow (perm)	3400	3093		1703	1743	1568	1780	3315		1235	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	359	315	283	54	293	141	141	98	22	413	348	641
RTOR Reduction (vph)	0	172	0	0	0	59	0	13	0	0	0	290
Lane Group Flow (vph)	359	426	0	54	293	82	141	107	0	413	348	351
Heavy Vehicles (%)	3%	7%	10%	6%	9%	3%	8%	5%	10%	4%	2%	2%
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases						8	2			6		6
Actuated Green, G (s)	9.0	30.0		3.6	24.6	24.6	30.0	30.0		30.0	30.0	30.0
Effective Green, g (s)	9.0	30.0		3.6	24.6	24.6	30.0	30.0		30.0	30.0	30.0
Actuated g/C Ratio	0.12	0.39		0.05	0.32	0.32	0.39	0.39		0.39	0.39	0.39
Clearance Time (s)	4.0	4.9		4.0	4.9	4.9	4.1	4.1		4.1	4.1	4.1
Vehicle Extension (s)	3.0	0.2		3.0	0.2	0.2	0.2	0.2		0.2	0.2	0.2
Lane Grp Cap (vph)	399	1211		80	559	503	697	1298		483	1386	619
v/s Ratio Prot	c0.11	0.14		0.03	c0.17			0.03			0.10	
v/s Ratio Perm						0.05	0.08			c0.33		0.22
v/c Ratio	0.90	0.35		0.68	0.52	0.16	0.20	0.08		0.86	0.25	0.57
Uniform Delay, d1	33.4	16.4		35.9	21.2	18.6	15.4	14.6		21.3	15.7	18.2
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	22.3	0.1		20.2	0.4	0.1	0.7	0.1		13.3	0.0	0.7
Delay (s)	55.7	16.5		56.1	21.6	18.7	16.0	14.8		34.6	15.8	18.9
Level of Service	E	B		E	C	B	B	B		C	B	B
Approach Delay (s)		31.2			24.6			15.5			22.8	
Approach LOS		C			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	25.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	13.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



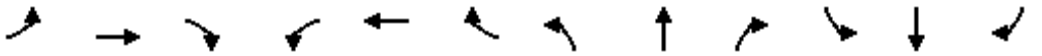
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	360	200	40	540	0	0	0	0	170	610	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.2	4.2	4.2						4.6	
Lane Util. Factor		1.00	1.00	1.00	1.00						0.95	
Frt		1.00	0.85	1.00	1.00						0.99	
Flt Protected		1.00	1.00	0.95	1.00						0.99	
Satd. Flow (prot)		1727	1568	1752	1792						3461	
Flt Permitted		1.00	1.00	0.35	1.00						0.99	
Satd. Flow (perm)		1727	1568	644	1792						3461	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	391	217	43	587	0	0	0	0	185	663	33
RTOR Reduction (vph)	0	0	94	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	391	123	43	587	0	0	0	0	0	879	0
Heavy Vehicles (%)	2%	10%	3%	3%	6%	2%	2%	2%	2%	5%	2%	2%
Turn Type		NA	Perm	Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases			4	8						6		
Actuated Green, G (s)		33.5	33.5	33.5	33.5						47.7	
Effective Green, g (s)		33.5	33.5	33.5	33.5						47.7	
Actuated g/C Ratio		0.37	0.37	0.37	0.37						0.53	
Clearance Time (s)		4.2	4.2	4.2	4.2						4.6	
Vehicle Extension (s)		0.2	0.2	0.2	0.2						0.2	
Lane Grp Cap (vph)		642	583	239	667						1834	
v/s Ratio Prot		0.23			c0.33							
v/s Ratio Perm			0.08	0.07							0.25	
v/c Ratio		0.61	0.21	0.18	0.88						0.48	
Uniform Delay, d1		22.9	19.3	19.0	26.4						13.3	
Progression Factor		1.00	1.00	1.08	1.02						1.00	
Incremental Delay, d2		1.1	0.1	0.1	11.8						0.9	
Delay (s)		24.1	19.3	20.7	38.7						14.2	
Level of Service		C	B	C	D						B	
Approach Delay (s)		22.4			37.4			0.0			14.2	
Approach LOS		C			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	87.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

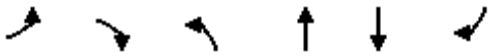
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	500	0	0	190	30	390	560	90	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6			4.6	4.6	4.6	4.6	4.6			
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1752	1776			1776	1509	1770	1845	1538			
Flt Permitted	0.58	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1077	1776			1776	1509	1770	1845	1538			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	543	0	0	207	33	424	609	98	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	19	0	0	19	0	0	0
Lane Group Flow (vph)	33	543	0	0	207	14	424	609	79	0	0	0
Heavy Vehicles (%)	3%	7%	2%	2%	7%	7%	2%	3%	5%	2%	2%	2%
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	35.4	35.4			35.4	35.4	45.4	45.4	45.4			
Effective Green, g (s)	35.4	35.4			35.4	35.4	45.4	45.4	45.4			
Actuated g/C Ratio	0.39	0.39			0.39	0.39	0.50	0.50	0.50			
Clearance Time (s)	4.6	4.6			4.6	4.6	4.6	4.6	4.6			
Lane Grp Cap (vph)	423	698			698	593	892	930	775			
v/s Ratio Prot		c0.31			0.12			c0.33				
v/s Ratio Perm	0.03					0.01	0.24		0.05			
v/c Ratio	0.08	0.78			0.30	0.02	0.48	0.65	0.10			
Uniform Delay, d1	17.1	23.9			18.7	16.7	14.5	16.5	11.6			
Progression Factor	0.69	0.67			1.00	1.00	1.04	1.11	0.86			
Incremental Delay, d2	0.3	7.5			1.1	0.1	1.6	3.2	0.2			
Delay (s)	12.1	23.6			19.8	16.8	16.7	21.5	10.2			
Level of Service	B	C			B	B	B	C	B			
Approach Delay (s)		22.9			19.4			18.7			0.0	
Approach LOS		C			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	87.0%	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	370	640	10	100	0	0	0	0	10	630	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.0	3.7	4.2						4.9	4.9
Lane Util. Factor		1.00	1.00	1.00	1.00						0.95	1.00
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						1.00	1.00
Satd. Flow (prot)		1863	1583	1770	1863						3536	1583
Flt Permitted		1.00	1.00	0.95	1.00						1.00	1.00
Satd. Flow (perm)		1863	1583	1770	1863						3536	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	402	696	11	109	0	0	0	0	11	685	326
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	147
Lane Group Flow (vph)	0	402	696	11	109	0	0	0	0	0	696	179
Turn Type		NA	Free	Prot	NA					Perm	NA	Perm
Protected Phases		4		3	8						6	
Permitted Phases			Free							6		6
Actuated Green, G (s)		26.7	90.0	1.2	31.6						49.3	49.3
Effective Green, g (s)		26.7	90.0	1.2	31.6						49.3	49.3
Actuated g/C Ratio		0.30	1.00	0.01	0.35						0.55	0.55
Clearance Time (s)		4.2		3.7	4.2						4.9	4.9
Vehicle Extension (s)		4.9		2.0	4.6						5.2	5.2
Lane Grp Cap (vph)		552	1583	23	654						1936	867
v/s Ratio Prot		c0.22		0.01	0.06							
v/s Ratio Perm			c0.44								0.20	0.11
v/c Ratio		0.73	0.44	0.48	0.17						0.36	0.21
Uniform Delay, d1		28.4	0.0	44.1	20.1						11.5	10.4
Progression Factor		1.00	1.00	0.68	1.61						1.00	1.00
Incremental Delay, d2		5.8	0.9	5.0	0.2						0.5	0.5
Delay (s)		34.2	0.9	35.2	32.6						12.0	10.9
Level of Service		C	A	D	C						B	B
Approach Delay (s)		13.1			32.9			0.0			11.6	
Approach LOS		B			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.5	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)	12.8
Intersection Capacity Utilization	60.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



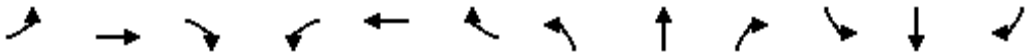
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	380	0	110	770	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2			4.9		
Lane Util. Factor	1.00			0.95		
Frt	1.00			1.00		
Flt Protected	0.95			0.99		
Satd. Flow (prot)	1770			3517		
Flt Permitted	0.95			0.99		
Satd. Flow (perm)	1770			3517		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	413	0	120	837	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	413	0	0	957	0	0
Turn Type	Prot		Perm	NA		
Protected Phases	4			2		
Permitted Phases			2			
Actuated Green, G (s)	28.6			52.3		
Effective Green, g (s)	28.6			52.3		
Actuated g/C Ratio	0.32			0.58		
Clearance Time (s)	4.2			4.9		
Vehicle Extension (s)	5.7			5.2		
Lane Grp Cap (vph)	562			2043		
v/s Ratio Prot	c0.23					
v/s Ratio Perm				0.27		
v/c Ratio	0.73			0.47		
Uniform Delay, d1	27.3			10.8		
Progression Factor	0.36			0.81		
Incremental Delay, d2	5.8			0.7		
Delay (s)	15.7			9.5		
Level of Service	B			A		
Approach Delay (s)	15.7			9.5	0.0	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



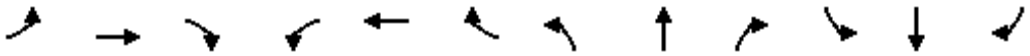
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	260	0	0	0	190	1090
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2					4.9
Lane Util. Factor	1.00					0.95
Frt	1.00					1.00
Flt Protected	0.95					0.99
Satd. Flow (prot)	1770					3513
Flt Permitted	0.95					0.99
Satd. Flow (perm)	1770					3513
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	283	0	0	0	207	1185
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	283	0	0	0	0	1392
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Actuated Green, G (s)	20.4					60.5
Effective Green, g (s)	20.4					60.5
Actuated g/C Ratio	0.23					0.67
Clearance Time (s)	4.2					4.9
Vehicle Extension (s)	4.8					5.4
Lane Grp Cap (vph)	401					2361
v/s Ratio Prot	c0.16					
v/s Ratio Perm						0.40
v/c Ratio	0.71					0.59
Uniform Delay, d1	32.0					8.0
Progression Factor	0.41					0.67
Incremental Delay, d2	6.6					1.0
Delay (s)	19.8					6.4
Level of Service	B					A
Approach Delay (s)	19.8		0.0			6.4
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	91.3%	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)	10	180	0	0	250	460	10	410	250	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.2	4.2		4.9	4.9			
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	1863			1863	1583		3535	1583			
Flt Permitted	0.45	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	846	1863			1863	1583		3535	1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	196	0	0	272	500	11	446	272	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	137	0	0	115	0	0	0
Lane Group Flow (vph)	11	196	0	0	272	363	0	457	157	0	0	0
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	28.8	28.8			28.8	28.8		52.1	52.1			
Effective Green, g (s)	28.8	28.8			28.8	28.8		52.1	52.1			
Actuated g/C Ratio	0.32	0.32			0.32	0.32		0.58	0.58			
Clearance Time (s)	4.2	4.2			4.2	4.2		4.9	4.9			
Vehicle Extension (s)	4.5	4.5			4.8	4.8		3.8	3.8			
Lane Grp Cap (vph)	270	596			596	506		2046	916			
v/s Ratio Prot		0.11			0.15							
v/s Ratio Perm	0.01					c0.23		0.13	0.10			
v/c Ratio	0.04	0.33			0.46	0.72		0.22	0.17			
Uniform Delay, d1	21.1	23.3			24.4	27.0		9.2	8.9			
Progression Factor	1.61	1.54			1.00	1.00		0.36	0.14			
Incremental Delay, d2	0.1	0.5			1.1	5.8		0.2	0.4			
Delay (s)	34.0	36.2			25.4	32.8		3.6	1.6			
Level of Service	C	D			C	C		A	A			
Approach Delay (s)		36.1			30.2			2.8			0.0	
Approach LOS		D			C			A			A	

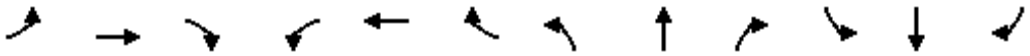
Intersection Summary			
HCM 2000 Control Delay	19.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	430	70	130	220	0	0	0	0	170	1010	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2		3.7	4.2						4.9	
Lane Util. Factor		1.00		1.00	1.00						0.95	
Frt		0.98		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1754		1770	1863						3451	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		1754		1770	1863						3451	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	467	76	141	239	0	0	0	0	185	1098	185
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	0	0	13	0
Lane Group Flow (vph)	0	536	0	141	239	0	0	0	0	0	1455	0
Heavy Vehicles (%)	2%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases										6		
Actuated Green, G (s)		24.9		6.3	34.9						46.0	
Effective Green, g (s)		24.9		6.3	34.9						46.0	
Actuated g/C Ratio		0.28		0.07	0.39						0.51	
Clearance Time (s)		4.2		3.7	4.2						4.9	
Vehicle Extension (s)		6.8		2.0	6.8						0.2	
Lane Grp Cap (vph)		485		123	722						1763	
v/s Ratio Prot		c0.31		c0.08	0.13							
v/s Ratio Perm											0.42	
v/c Ratio		1.11		1.15	0.33						0.83	
Uniform Delay, d1		32.5		41.9	19.4						18.6	
Progression Factor		1.00		1.72	0.16						0.80	
Incremental Delay, d2		73.1		119.3	0.8						3.7	
Delay (s)		105.6		191.1	3.9						18.6	
Level of Service		F		F	A						B	
Approach Delay (s)		105.6			73.4			0.0			18.6	
Approach LOS		F			E			A			B	

Intersection Summary			
HCM 2000 Control Delay	47.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



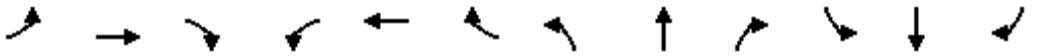
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	130	470	0	0	310	110	40	430	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.7	4.2			4.2	4.2		4.9	4.9			
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	1776			1863	1583		3524	1583			
Flt Permitted	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1770	1776			1863	1583		3524	1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	141	511	0	0	337	120	43	467	43	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	90	0	0	22	0	0	0
Lane Group Flow (vph)	141	511	0	0	337	30	0	510	21	0	0	0
Heavy Vehicles (%)	2%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases						8	2		2			
Actuated Green, G (s)	10.9	37.4			22.8	22.8		43.5	43.5			
Effective Green, g (s)	10.9	37.4			22.8	22.8		43.5	43.5			
Actuated g/C Ratio	0.12	0.42			0.25	0.25		0.48	0.48			
Clearance Time (s)	3.7	4.2			4.2	4.2		4.9	4.9			
Vehicle Extension (s)	2.0	5.1			5.1	5.1		0.2	0.2			
Lane Grp Cap (vph)	214	738			471	401		1703	765			
v/s Ratio Prot	0.08	c0.29			0.18							
v/s Ratio Perm						0.02		0.14	0.01			
v/c Ratio	0.66	0.69			0.72	0.08		0.30	0.03			
Uniform Delay, d1	37.8	21.6			30.6	25.6		14.0	12.2			
Progression Factor	0.68	0.69			1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.5	0.3			6.4	0.2		0.5	0.1			
Delay (s)	26.1	15.3			37.1	25.8		14.5	12.2			
Level of Service	C	B			D	C		B	B			
Approach Delay (s)		17.6			34.1			14.3			0.0	
Approach LOS		B			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	21.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

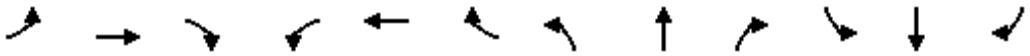
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	340	70	100	350	40	40	330	50	90	500	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6		4.6	4.6		4.6	4.6		4.6	4.6	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	0.98		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1815		1770	1834		1770	1826		1770	1805	
Flt Permitted	0.36	1.00		0.33	1.00		0.20	1.00		0.46	1.00	
Satd. Flow (perm)	675	1815		619	1834		376	1826		848	1805	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	370	76	109	380	43	43	359	54	98	543	141
RTOR Reduction (vph)	0	14	0	0	8	0	0	10	0	0	17	0
Lane Group Flow (vph)	130	432	0	109	415	0	43	403	0	98	667	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	14.6	14.6		14.6	14.6		19.9	19.9		19.9	19.9	
Effective Green, g (s)	14.6	14.6		14.6	14.6		19.9	19.9		19.9	19.9	
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.46	0.46		0.46	0.46	
Clearance Time (s)	4.6	4.6		4.6	4.6		4.6	4.6		4.6	4.6	
Vehicle Extension (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
Lane Grp Cap (vph)	225	606		206	612		171	831		386	821	
v/s Ratio Prot		c0.24			0.23			0.22			c0.37	
v/s Ratio Perm	0.19			0.18			0.11			0.12		
v/c Ratio	0.58	0.71		0.53	0.68		0.25	0.48		0.25	0.81	
Uniform Delay, d1	12.0	12.7		11.8	12.5		7.3	8.3		7.3	10.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.8	4.1		2.8	3.1		0.9	0.5		0.4	6.3	
Delay (s)	15.8	16.8		14.6	15.6		8.2	8.8		7.7	16.6	
Level of Service	B	B		B	B		A	A		A	B	
Approach Delay (s)		16.6			15.4			8.8			15.5	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	43.7	Sum of lost time (s)	9.2
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



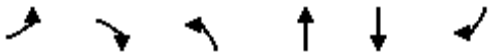
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	250	100	190	290	100	130	450	60	120	1010	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9	4.9	4.9	4.9		4.9	4.9		4.9	4.9	4.9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1791		1770	3477		1770	3539	1583
Flt Permitted	0.31	1.00	1.00	0.52	1.00		0.18	1.00		0.43	1.00	1.00
Satd. Flow (perm)	579	1863	1583	963	1791		344	3477		805	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	272	109	207	315	109	141	489	65	130	1098	163
RTOR Reduction (vph)	0	0	40	0	19	0	0	14	0	0	0	57
Lane Group Flow (vph)	120	272	69	207	405	0	141	540	0	130	1098	106
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4		4	8			6			2		2
Actuated Green, G (s)	20.3	20.3	20.3	20.3	20.3		32.2	32.2		32.2	32.2	32.2
Effective Green, g (s)	20.3	20.3	20.3	20.3	20.3		32.2	32.2		32.2	32.2	32.2
Actuated g/C Ratio	0.33	0.33	0.33	0.33	0.33		0.52	0.52		0.52	0.52	0.52
Clearance Time (s)	4.9	4.9	4.9	4.9	4.9		4.9	4.9		4.9	4.9	4.9
Vehicle Extension (s)	4.5	4.5	4.5	4.5	4.5		5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	188	607	515	313	583		177	1797		416	1829	818
v/s Ratio Prot		0.15			c0.23			0.16			0.31	
v/s Ratio Perm	0.21		0.04	0.22			c0.41			0.16		0.07
v/c Ratio	0.64	0.45	0.13	0.66	0.69		0.80	0.30		0.31	0.60	0.13
Uniform Delay, d1	17.9	16.6	14.8	18.0	18.3		12.4	8.6		8.7	10.5	7.8
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	8.6	0.9	0.2	6.2	4.1		24.2	0.2		0.9	0.8	0.2
Delay (s)	26.5	17.5	15.0	24.2	22.5		36.6	8.8		9.6	11.4	7.9
Level of Service	C	B	B	C	C		D	A		A	B	A
Approach Delay (s)		19.1			23.0			14.4			10.8	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	62.3	Sum of lost time (s)	9.8
Intersection Capacity Utilization	78.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



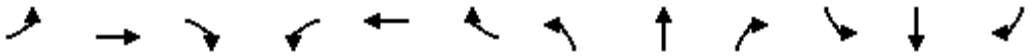
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	460	570	10	80	0	0	0	0	0	650	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7	4.0		3.7						4.1	
Lane Util. Factor		1.00	1.00		1.00						0.95	
Frt		1.00	0.85		1.00						0.96	
Flt Protected		1.00	1.00		0.99						1.00	
Satd. Flow (prot)		1863	1583		1852						3415	
Flt Permitted		1.00	1.00		0.93						1.00	
Satd. Flow (perm)		1863	1583		1725						3415	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	500	620	11	87	0	0	0	0	0	707	217
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	26	0
Lane Group Flow (vph)	0	500	620	0	98	0	0	0	0	0	898	0
Turn Type		NA	Free	Perm	NA						NA	
Protected Phases		4			8						6	
Permitted Phases			Free	8						6		
Actuated Green, G (s)		31.8	90.0		31.8						50.4	
Effective Green, g (s)		31.8	90.0		31.8						50.4	
Actuated g/C Ratio		0.35	1.00		0.35						0.56	
Clearance Time (s)		3.7			3.7						4.1	
Vehicle Extension (s)		5.0			4.8						4.6	
Lane Grp Cap (vph)		658	1583		609						1912	
v/s Ratio Prot		c0.27									c0.26	
v/s Ratio Perm			0.39		0.06							
v/c Ratio		0.76	0.39		0.16						0.47	
Uniform Delay, d1		25.7	0.0		20.0						11.8	
Progression Factor		1.00	1.00		1.96						0.55	
Incremental Delay, d2		6.0	0.7		0.2						0.8	
Delay (s)		31.7	0.7		39.4						7.3	
Level of Service		C	A		D						A	
Approach Delay (s)		14.6			39.4			0.0			7.3	
Approach LOS		B			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.8
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



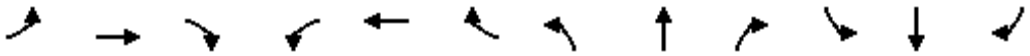
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	460	0	90	580	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6			4.6		
Lane Util. Factor	1.00			0.95		
Frt	1.00			1.00		
Flt Protected	0.95			0.99		
Satd. Flow (prot)	1770			3516		
Flt Permitted	0.95			0.99		
Satd. Flow (perm)	1770			3516		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	500	0	98	630	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	500	0	0	728	0	0
Turn Type	Prot		Perm	NA		
Protected Phases	4			2		
Permitted Phases			2			
Actuated Green, G (s)	32.0			48.8		
Effective Green, g (s)	32.0			48.8		
Actuated g/C Ratio	0.36			0.54		
Clearance Time (s)	4.6			4.6		
Vehicle Extension (s)	3.3			4.9		
Lane Grp Cap (vph)	629			1906		
v/s Ratio Prot	c0.28					
v/s Ratio Perm				0.21		
v/c Ratio	0.79			0.38		
Uniform Delay, d1	26.1			11.9		
Progression Factor	0.77			1.04		
Incremental Delay, d2	5.8			0.6		
Delay (s)	26.0			13.0		
Level of Service	C			B		
Approach Delay (s)	26.0			13.0	0.0	
Approach LOS	C			B	A	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



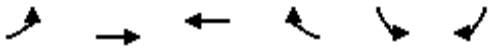
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	480	640	0	0	0	0	0	0	350	880	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.2							4.6	4.6	
Lane Util. Factor		0.95	1.00							1.00	0.95	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		3539	1583							1770	3539	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		3539	1583							1770	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	522	696	0	0	0	0	0	0	380	957	0
RTOR Reduction (vph)	0	0	11	0	0	0	0	0	0	196	0	0
Lane Group Flow (vph)	0	522	685	0	0	0	0	0	0	184	957	0
Turn Type		NA	Perm							Split	NA	
Protected Phases		4								6	6	
Permitted Phases			4									
Actuated Green, G (s)		46.5	46.5							34.7	34.7	
Effective Green, g (s)		46.5	46.5							34.7	34.7	
Actuated g/C Ratio		0.52	0.52							0.39	0.39	
Clearance Time (s)		4.2	4.2							4.6	4.6	
Vehicle Extension (s)		6.4	6.4							5.6	5.6	
Lane Grp Cap (vph)		1828	817							682	1364	
v/s Ratio Prot		0.15								0.10	c0.27	
v/s Ratio Perm			c0.43									
v/c Ratio		0.29	0.84							0.27	0.70	
Uniform Delay, d1		12.3	18.5							19.0	23.3	
Progression Factor		1.00	1.00							0.35	0.71	
Incremental Delay, d2		0.3	8.9							0.9	2.8	
Delay (s)		12.6	27.4							7.6	19.3	
Level of Service		B	C							A	B	
Approach Delay (s)		21.1			0.0			0.0			16.0	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	18.4	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)	8.8
Intersection Capacity Utilization	68.6%	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)	470	360	0	0	0	0	0	200	350	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6						4.6	4.6			
Lane Util. Factor	1.00	1.00						0.95	1.00			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						1.00	1.00			
Satd. Flow (prot)	1770	1863						3539	1583			
Flt Permitted	0.95	1.00						1.00	1.00			
Satd. Flow (perm)	1770	1863						3539	1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	511	391	0	0	0	0	0	217	380	0	0	0
RTOR Reduction (vph)	223	0	0	0	0	0	0	0	166	0	0	0
Lane Group Flow (vph)	288	391	0	0	0	0	0	217	214	0	0	0
Turn Type	Split	NA						NA	Perm			
Protected Phases	4	4						2				
Permitted Phases									2			
Actuated Green, G (s)	30.0	30.0						50.8	50.8			
Effective Green, g (s)	30.0	30.0						50.8	50.8			
Actuated g/C Ratio	0.33	0.33						0.56	0.56			
Clearance Time (s)	4.6	4.6						4.6	4.6			
Vehicle Extension (s)	5.0	5.0						4.5	4.5			
Lane Grp Cap (vph)	590	621						1997	893			
v/s Ratio Prot	0.16	c0.21						0.06				
v/s Ratio Perm									c0.14			
v/c Ratio	0.49	0.63						0.11	0.24			
Uniform Delay, d1	23.9	25.3						9.1	9.9			
Progression Factor	1.64	1.10						1.00	1.00			
Incremental Delay, d2	1.3	2.7						0.1	0.6			
Delay (s)	40.4	30.6						9.2	10.5			
Level of Service	D	C						A	B			
Approach Delay (s)		36.2			0.0			10.0			0.0	
Approach LOS		D			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	25.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	111.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

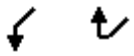


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	20	860	610	160	610	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8	4.8	4.8	
Lane Util. Factor		0.95	1.00	1.00	0.97	
Frt		1.00	1.00	0.85	0.99	
Flt Protected		1.00	1.00	1.00	0.96	
Satd. Flow (prot)		3495	1776	1495	3365	
Flt Permitted		0.94	1.00	1.00	0.96	
Satd. Flow (perm)		3272	1776	1495	3365	
Peak-hour factor, PHF	0.92	0.92	0.93	0.93	0.92	0.92
Adj. Flow (vph)	22	935	656	172	663	54
RTOR Reduction (vph)	0	0	0	83	10	0
Lane Group Flow (vph)	0	957	656	89	707	0
Heavy Vehicles (%)	10%	3%	7%	8%	3%	10%
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)		31.2	31.2	31.2	19.2	
Effective Green, g (s)		31.2	31.2	31.2	19.2	
Actuated g/C Ratio		0.52	0.52	0.52	0.32	
Clearance Time (s)		4.8	4.8	4.8	4.8	
Lane Grp Cap (vph)		1701	923	777	1076	
v/s Ratio Prot			c0.37		c0.21	
v/s Ratio Perm		0.29		0.06		
v/c Ratio		0.56	0.71	0.12	0.66	
Uniform Delay, d1		9.8	11.0	7.4	17.6	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.4	4.6	0.3	3.1	
Delay (s)		11.1	15.6	7.7	20.7	
Level of Service		B	B	A	C	
Approach Delay (s)		11.1	13.9		20.7	
Approach LOS		B	B		C	

Intersection Summary			
HCM 2000 Control Delay	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

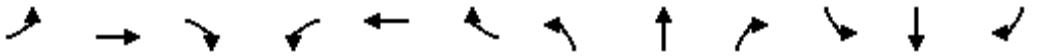
Movement	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	10	10	580	10	10	320	10	830	780	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6			4.6	4.6			4.6	4.6	4.6	4.6	
Lane Util. Factor	1.00			1.00	1.00			0.95	1.00	1.00	1.00	
Frt	0.93			1.00	0.85			1.00	0.85	1.00	1.00	
Flt Protected	1.00			0.98	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1737			1817	1583			3534	1583	1770	1859	
Flt Permitted	1.00			0.91	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1737			1690	1583			3534	1583	1770	1859	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	11	630	11	11	348	11	902	848	11
RTOR Reduction (vph)	9	0	0	0	16	0	0	0	10	0	1	0
Lane Group Flow (vph)	13	0	0	22	625	0	0	359	1	902	858	0
Turn Type	NA		Perm	NA	custom		Split	NA	Perm	Split	NA	
Protected Phases	6			6	2		4	4		5	5	
Permitted Phases			6						4			
Actuated Green, G (s)	28.0			28.0	89.9			17.5	17.5	57.3	57.3	
Effective Green, g (s)	28.0			28.0	89.9			17.5	17.5	57.3	57.3	
Actuated g/C Ratio	0.22			0.22	0.69			0.13	0.13	0.44	0.44	
Clearance Time (s)	4.6			4.6	4.6			4.6	4.6	4.6	4.6	
Vehicle Extension (s)	5.0			5.0	5.0			4.0	4.0	5.0	5.0	
Lane Grp Cap (vph)	374			364	1094			475	213	780	819	
v/s Ratio Prot	0.01				c0.39			c0.10		c0.51	0.46	
v/s Ratio Perm				0.01					0.00			
v/c Ratio	0.04			0.06	0.57			0.76	0.01	1.16	1.05	
Uniform Delay, d1	40.3			40.5	10.2			54.2	48.7	36.4	36.4	
Progression Factor	1.00			0.80	0.81			1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.1			0.1	2.1			7.2	0.0	84.6	44.8	
Delay (s)	40.4			32.5	10.4			61.3	48.7	120.9	81.2	
Level of Service	D			C	B			E	D	F	F	
Approach Delay (s)	40.4			11.1				61.0			101.5	
Approach LOS	D			B				E			F	

Intersection Summary			
HCM 2000 Control Delay	74.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	18.4
Intersection Capacity Utilization	93.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



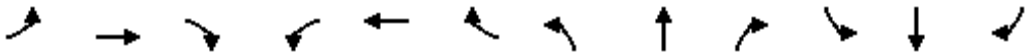
Movement	SWL	SWR2
Lane Configurations		
Volume (vph)	10	10
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.6	
Lane Util. Factor	1.00	
Frt	0.93	
Flt Protected	0.98	
Satd. Flow (prot)	1695	
Flt Permitted	0.98	
Satd. Flow (perm)	1695	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	11	11
RTOR Reduction (vph)	21	0
Lane Group Flow (vph)	1	0
Turn Type	Prot	
Protected Phases	8	
Permitted Phases		
Actuated Green, G (s)	8.8	
Effective Green, g (s)	8.8	
Actuated g/C Ratio	0.07	
Clearance Time (s)	4.6	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	114	
v/s Ratio Prot	c0.00	
v/s Ratio Perm		
v/c Ratio	0.01	
Uniform Delay, d1	56.5	
Progression Factor	1.00	
Incremental Delay, d2	0.1	
Delay (s)	56.6	
Level of Service	E	
Approach Delay (s)	56.6	
Approach LOS	E	

Intersection Summary



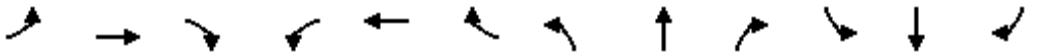
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	610	230	10	330	0	40	0	20	450	870	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5		4.5	4.5	4.5	4.5
Lane Util. Factor		1.00		1.00	1.00		1.00		1.00	1.00	1.00	1.00
Frt		0.96		1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		1794		1770	1863		1770		1583	1770	1863	1583
Flt Permitted		1.00		0.07	1.00		0.07		1.00	0.95	1.00	1.00
Satd. Flow (perm)		1794		125	1863		121		1583	1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	663	250	11	359	0	43	0	22	489	946	22
RTOR Reduction (vph)	0	10	0	0	0	0	0	0	12	0	0	7
Lane Group Flow (vph)	0	903	0	11	359	0	43	0	10	489	946	15
Turn Type		NA		Perm	NA		D.Pm		Perm	Perm	NA	Perm
Protected Phases					4						2	
Permitted Phases		4		4			2		2	2		2
Actuated Green, G (s)		59.5		59.5	59.5		61.5		61.5	61.5	61.5	61.5
Effective Green, g (s)		59.5		59.5	59.5		61.5		61.5	61.5	61.5	61.5
Actuated g/C Ratio		0.46		0.46	0.46		0.47		0.47	0.47	0.47	0.47
Clearance Time (s)		4.5		4.5	4.5		4.5		4.5	4.5	4.5	4.5
Vehicle Extension (s)		2.0		2.0	2.0		2.0		2.0	2.0	2.0	2.0
Lane Grp Cap (vph)		821		57	852		57		748	837	881	748
v/s Ratio Prot					0.19						c0.51	
v/s Ratio Perm		c0.50		0.09			0.35		0.01	0.28		0.01
v/c Ratio		1.10		0.19	0.42		0.75		0.01	0.58	1.07	0.02
Uniform Delay, d1		35.2		21.0	23.7		28.1		18.2	24.9	34.2	18.2
Progression Factor		0.36		1.18	1.04		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		46.9		6.7	1.4		62.1		0.0	3.0	52.1	0.0
Delay (s)		59.5		31.5	26.0		90.2		18.2	27.9	86.4	18.3
Level of Service		E		C	C		F		B	C	F	B
Approach Delay (s)		59.5			26.1			65.8			65.7	
Approach LOS		E			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	58.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	102.3%	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)	10	760	310	20	250	50	90	440	20	0	0	0
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			4.2	4.2			
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00			
Frt	1.00	0.96		1.00	0.98			1.00	0.85			
Flt Protected	0.95	1.00		0.95	1.00			0.99	1.00			
Satd. Flow (prot)	1770	1784		1770	1816			1847	1583			
Flt Permitted	0.52	1.00		0.05	1.00			0.99	1.00			
Satd. Flow (perm)	969	1784		92	1816			1847	1583			
Peak-hour factor, PHF	0.92	0.92	0.96	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	11	826	323	22	272	54	96	468	21	0	0	0
RTOR Reduction (vph)	0	11	0	0	6	0	0	0	11	0	0	0
Lane Group Flow (vph)	11	1138	0	22	320	0	0	564	10	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm			
Protected Phases		8			4			6				
Permitted Phases	8			4			6		6			
Actuated Green, G (s)	81.3	81.3		81.3	81.3			40.0	40.0			
Effective Green, g (s)	81.3	81.3		81.3	81.3			40.0	40.0			
Actuated g/C Ratio	0.63	0.63		0.63	0.63			0.31	0.31			
Clearance Time (s)	4.5	4.5		4.5	4.5			4.2	4.2			
Vehicle Extension (s)	2.0	2.0		2.0	2.0			2.0	2.0			
Lane Grp Cap (vph)	605	1115		57	1135			568	487			
v/s Ratio Prot		c0.64			0.18							
v/s Ratio Perm	0.01			0.24				0.31	0.01			
v/c Ratio	0.02	1.02		0.39	0.28			0.99	0.02			
Uniform Delay, d1	9.2	24.4		12.0	11.1			44.9	31.4			
Progression Factor	0.85	1.10		0.85	0.83			1.00	1.00			
Incremental Delay, d2	0.0	24.0		16.4	0.5			36.1	0.1			
Delay (s)	7.9	50.9		26.6	9.7			80.9	31.4			
Level of Service	A	D		C	A			F	C			
Approach Delay (s)		50.5			10.8			79.2			0.0	
Approach LOS		D			B			E			A	

Intersection Summary			
HCM 2000 Control Delay	51.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.7
Intersection Capacity Utilization	94.3%	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	580	210	0	210	0	0	0	0	70	720	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5					4.9	4.9	4.9
Lane Util. Factor		1.00			1.00					1.00	0.95	1.00
Frt		0.96			1.00					1.00	1.00	0.85
Flt Protected		1.00			1.00					0.95	1.00	1.00
Satd. Flow (prot)		1796			1863					1770	3539	1583
Flt Permitted		1.00			1.00					0.95	1.00	1.00
Satd. Flow (perm)		1796			1863					1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	630	228	0	228	0	0	0	0	76	783	130
RTOR Reduction (vph)	0	21	0	0	0	0	0	0	0	0	0	79
Lane Group Flow (vph)	0	837	0	0	228	0	0	0	0	76	783	51
Turn Type		NA			NA					Perm	NA	Perm
Protected Phases		4			4						2	
Permitted Phases										2		2
Actuated Green, G (s)		27.0			27.0					23.6	23.6	23.6
Effective Green, g (s)		27.0			27.0					23.6	23.6	23.6
Actuated g/C Ratio		0.45			0.45					0.39	0.39	0.39
Clearance Time (s)		4.5			4.5					4.9	4.9	4.9
Lane Grp Cap (vph)		808			838					696	1392	622
v/s Ratio Prot		c0.47			0.12						c0.22	
v/s Ratio Perm										0.04		0.03
v/c Ratio		1.04			0.27					0.11	0.56	0.08
Uniform Delay, d1		16.5			10.3					11.5	14.2	11.4
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		41.1			0.8					0.3	1.6	0.3
Delay (s)		57.6			11.1					11.9	15.8	11.7
Level of Service		E			B					B	B	B
Approach Delay (s)		57.6			11.1			0.0			15.0	
Approach LOS		E			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	32.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.4
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

MOVEMENT SUMMARY

Site: 25_Divisidero_Abby_AM

Divisadero Street/Abby Street/P Street
Cumulative Plus Project Mall Open
Roundabout

Movement Performance - Vehicles

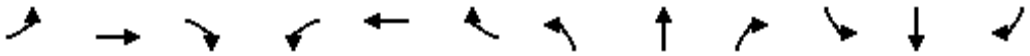
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
SouthEast: P Street											
3x	L2	163	2.0	0.732	17.9	LOS C	8.7	221.7	0.96	2.32	20.6
3ax	L1	76	2.0	0.732	18.1	LOS C	8.7	221.7	0.96	2.32	20.6
18ax	R1	239	2.0	0.732	11.8	LOS B	8.7	221.7	0.96	2.32	20.6
18bx	R3	22	2.0	0.732	14.1	LOS B	8.7	221.7	0.96	2.32	20.6
Approach		500	2.0	0.732	14.9	LOS B	8.7	221.7	0.96	1.16	20.6
East: Divisidero											
1b	L3	11	2.0	0.566	17.2	LOS C	4.9	124.7	0.90	2.03	25.5
1a	L1	120	2.0	0.566	16.7	LOS C	4.9	124.7	0.90	2.03	25.5
6	T1	141	2.0	0.566	11.4	LOS B	4.9	124.7	0.90	2.03	25.5
16	R2	65	2.0	0.566	14.4	LOS B	4.9	124.7	0.90	2.03	25.5
Approach		337	2.0	0.566	14.0	LOS B	4.9	124.7	0.90	1.02	25.5
West: Divisidero											
5	L2	120	2.0	0.647	17.2	LOS C	6.6	168.5	0.79	1.58	27.8
2	T1	359	2.0	0.647	7.7	LOS A	6.6	168.5	0.79	1.58	27.8
12a	R1	76	2.0	0.647	7.0	LOS A	6.6	168.5	0.79	1.58	27.8
12b	R3	22	2.0	0.647	9.5	LOS A	6.6	168.5	0.79	1.58	27.8
Approach		576	2.0	0.647	9.7	LOS A	6.6	168.5	0.79	0.79	27.8
All Vehicles		1413	2.0	0.732	12.6	LOS B	8.7	221.7	0.87	0.98	24.2

Level of Service (LOS) Method: Delay (HCM 2000).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Movement	WBT	SBL	SBR	SBR2	SET	SER	NWT
Lane Configurations							
Volume (vph)	190	370	550	10	10	10	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.9	4.9		3.0		
Lane Util. Factor	0.95	1.00	1.00		1.00		
Frt	1.00	1.00	0.85		0.93		
Flt Protected	1.00	0.95	1.00		1.00		
Satd. Flow (prot)	3539	1770	1583		1737		
Flt Permitted	1.00	0.95	1.00		1.00		
Satd. Flow (perm)	3539	1770	1583		1737		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	207	402	598	11	11	11	0
RTOR Reduction (vph)	0	0	54	0	10	0	0
Lane Group Flow (vph)	207	402	555	0	12	0	0
Turn Type	NA	Prot	Perm		NA		
Protected Phases	4	2			3		1
Permitted Phases			2				
Actuated Green, G (s)	33.3	43.0	43.0		5.6		
Effective Green, g (s)	33.3	43.0	43.0		5.6		
Actuated g/C Ratio	0.33	0.43	0.43		0.06		
Clearance Time (s)	4.6	4.9	4.9		3.0		
Vehicle Extension (s)	4.0	4.0	4.0		2.0		
Lane Grp Cap (vph)	1178	761	680		97		
v/s Ratio Prot	c0.06	0.23			c0.01		
v/s Ratio Perm			c0.35				
v/c Ratio	0.18	0.53	0.82		0.12		
Uniform Delay, d1	23.6	21.0	25.0		44.9		
Progression Factor	1.00	1.00	1.00		1.00		
Incremental Delay, d2	0.3	0.9	7.9		0.2		
Delay (s)	24.0	21.9	32.9		45.1		
Level of Service	C	C	C		D		
Approach Delay (s)	24.0	28.5			45.1		0.0
Approach LOS	C	C			D		A

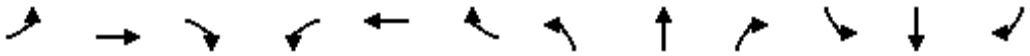
Intersection Summary			
HCM 2000 Control Delay	28.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	80	460	60	0	70	0	0	350	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.2			4.2			4.2	
Lane Util. Factor					0.91			1.00			1.00	
Frt					0.99			1.00			0.95	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					4976			1863			1766	
Flt Permitted					0.99			1.00			1.00	
Satd. Flow (perm)					4976			1863			1766	
Peak-hour factor, PHF	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	84	484	63	0	76	0	0	380	239
RTOR Reduction (vph)	0	0	0	0	11	0	0	0	0	0	26	0
Lane Group Flow (vph)	0	0	0	0	620	0	0	76	0	0	593	0
Turn Type				Prot	NA			NA			NA	
Protected Phases				3	8			2			2	
Permitted Phases							2					
Actuated Green, G (s)					52.0			39.6			39.6	
Effective Green, g (s)					52.0			39.6			39.6	
Actuated g/C Ratio					0.52			0.40			0.40	
Clearance Time (s)					4.2			4.2			4.2	
Vehicle Extension (s)					3.4			3.4			3.4	
Lane Grp Cap (vph)					2587			737			699	
v/s Ratio Prot								0.04			c0.34	
v/s Ratio Perm					0.12							
v/c Ratio					3.65dl			0.10			0.85	
Uniform Delay, d1					13.2			19.0			27.5	
Progression Factor					0.75			1.00			1.00	
Incremental Delay, d2					0.0			0.1			9.6	
Delay (s)					10.0			19.1			37.1	
Level of Service					A			B			D	
Approach Delay (s)		0.0			10.0			19.1			37.1	
Approach LOS		A			A			B			D	

Intersection Summary			
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

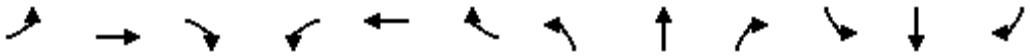


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	230	0	10	60	470	80	80	240	0	0	440	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.2	4.2	4.2	4.2	4.2			4.2	
Lane Util. Factor	1.00		1.00	0.95	0.91	0.95	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected	0.95		1.00	0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1770		1583	1681	1690	1504	1770	1863			1852	
Flt Permitted	0.95		1.00	0.95	1.00	1.00	0.21	1.00			1.00	
Satd. Flow (perm)	1770		1583	1681	1690	1504	385	1863			1852	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	250	0	11	65	511	87	86	258	0	0	478	22
RTOR Reduction (vph)	0	0	9	0	1	51	0	0	0	0	2	0
Lane Group Flow (vph)	250	0	2	58	526	27	86	258	0	0	498	0
Turn Type	Prot		Prot	Split	NA	Perm	Perm	NA			NA	
Protected Phases	7		7	8	8			6			2	
Permitted Phases						8	6					
Actuated Green, G (s)	16.9		16.9	34.8	34.8	34.8	35.9	35.9			35.9	
Effective Green, g (s)	16.9		16.9	34.8	34.8	34.8	35.9	35.9			35.9	
Actuated g/C Ratio	0.17		0.17	0.35	0.35	0.35	0.36	0.36			0.36	
Clearance Time (s)	4.0		4.0	4.2	4.2	4.2	4.2	4.2			4.2	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	299		267	584	588	523	138	668			664	
v/s Ratio Prot	c0.14		0.00	0.03	c0.31			0.14			c0.27	
v/s Ratio Perm						0.02	0.22					
v/c Ratio	0.84		0.01	0.10	0.90	0.05	0.62	0.39			0.75	
Uniform Delay, d1	40.2		34.6	22.0	30.9	21.6	26.5	23.9			28.1	
Progression Factor	0.83		1.00	0.58	0.76	0.30	1.00	1.00			1.00	
Incremental Delay, d2	17.8		0.0	0.3	17.0	0.2	19.4	1.7			7.6	
Delay (s)	51.1		34.6	13.1	40.4	6.7	45.8	25.5			35.7	
Level of Service	D		C	B	D	A	D	C			D	
Approach Delay (s)		50.4			34.0			30.6			35.7	
Approach LOS		D			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	36.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	99.2%	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)	30	20	10	450	240	130	10	220	130	120	290	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2	4.2	4.5	4.2	4.2	4.2	4.5		4.5	4.2	
Lane Util. Factor	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	0.94		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1759		1770	1815	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	1770	1759		1770	1815	
Peak-hour factor, PHF	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	22	11	469	250	135	11	239	141	130	315	65
RTOR Reduction (vph)	0	0	9	0	0	81	0	21	0	0	7	0
Lane Group Flow (vph)	33	22	2	469	250	54	11	359	0	130	373	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		2	5		6	1	
Permitted Phases			4			8						
Actuated Green, G (s)	3.6	18.1	18.1	24.8	39.8	39.8	19.0	25.2		14.2	21.0	
Effective Green, g (s)	3.6	18.1	18.1	24.8	39.8	39.8	19.0	25.2		14.2	21.0	
Actuated g/C Ratio	0.04	0.18	0.18	0.25	0.40	0.40	0.19	0.25		0.14	0.21	
Clearance Time (s)	4.0	4.2	4.2	4.5	4.2	4.2	4.2	4.5		4.5	4.2	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	63	337	286	438	741	630	336	443		251	381	
v/s Ratio Prot	c0.02	0.01		c0.27	c0.13		0.01	c0.20		0.07	c0.21	
v/s Ratio Perm			0.00			0.03						
v/c Ratio	0.52	0.07	0.01	1.07	0.34	0.09	0.03	0.81		0.52	0.98	
Uniform Delay, d1	47.4	33.9	33.6	37.6	20.9	18.8	33.0	35.2		39.7	39.3	
Progression Factor	1.00	1.00	1.00	0.80	0.89	0.80	1.00	1.00		1.00	1.00	
Incremental Delay, d2	7.6	0.4	0.0	62.7	1.2	0.3	0.2	14.8		1.8	41.1	
Delay (s)	55.0	34.3	33.6	92.9	19.8	15.3	33.2	50.0		41.5	80.4	
Level of Service	E	C	C	F	B	B	C	D		D	F	
Approach Delay (s)		44.5			59.2			49.5			70.5	
Approach LOS		D			E			D			E	

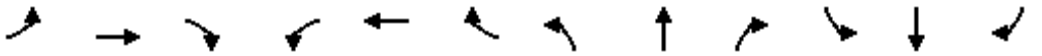
Intersection Summary			
HCM 2000 Control Delay	59.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.7
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	30	320	130	190	460	10	10	120	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	5.4			5.4			5.4	
Lane Util. Factor				1.00	0.95			0.95			0.95	
Frt				1.00	0.96			1.00			0.93	
Flt Protected				0.95	1.00			0.99			1.00	
Satd. Flow (prot)				1770	3228			3481			3267	
Flt Permitted				0.95	1.00			0.76			0.92	
Satd. Flow (perm)				1770	3228			2668			3027	
Peak-hour factor, PHF	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	32	344	140	207	500	11	11	130	141
RTOR Reduction (vph)	0	0	0	0	41	0	0	1	0	0	68	0
Lane Group Flow (vph)	0	0	0	32	443	0	0	717	0	0	214	0
Heavy Vehicles (%)	2%	2%	2%	2%	9%	2%	2%	2%	2%	2%	2%	2%
Turn Type				Prot	NA		Perm	NA		Perm	NA	
Protected Phases				3	8			2			2	
Permitted Phases							2			2		
Actuated Green, G (s)				4.6	37.2			52.0			52.0	
Effective Green, g (s)				4.6	37.2			52.0			52.0	
Actuated g/C Ratio				0.05	0.37			0.52			0.52	
Clearance Time (s)				4.0	5.4			5.4			5.4	
Vehicle Extension (s)				3.0	0.2			0.2			0.2	
Lane Grp Cap (vph)				81	1200			1387			1574	
v/s Ratio Prot				0.02	c0.14							
v/s Ratio Perm								c0.27			0.07	
v/c Ratio				0.40	0.37			0.52			0.14	
Uniform Delay, d1				46.3	22.9			15.8			12.4	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				3.2	0.9			1.4			0.2	
Delay (s)				49.5	23.7			17.1			12.6	
Level of Service				D	C			B			B	
Approach Delay (s)		0.0			25.3			17.1			12.6	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.8
Intersection Capacity Utilization	81.0%	ICU Level of Service	D
Analysis Period (min)	15		

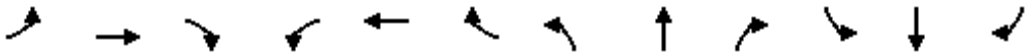
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	230	410	100	320	0	0	0	0
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				
Lane Util. Factor					0.91	0.91		1.00				
Frt					0.93	0.85		1.00				
Flt Protected					1.00	1.00		0.99				
Satd. Flow (prot)					2935	1336		1781				
Flt Permitted					1.00	1.00		0.99				
Satd. Flow (perm)					2935	1336		1781				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	250	446	109	348	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	186	186	0	5	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	287	37	0	452	0	0	0	0
Heavy Vehicles (%)	2%	2%	2%	2%	9%	10%	10%	4%	2%	2%	2%	2%
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					16.5	16.5		75.5				
Effective Green, g (s)					16.5	16.5		75.5				
Actuated g/C Ratio					0.16	0.16		0.76				
Clearance Time (s)					4.0	4.0		4.0				
Vehicle Extension (s)					3.0	3.0		3.0				
Lane Grp Cap (vph)					484	220		1344				
v/s Ratio Prot					c0.10							
v/s Ratio Perm						0.03		0.25				
v/c Ratio					0.59	0.17		0.34				
Uniform Delay, d1					38.6	35.9		4.0				
Progression Factor					0.73	1.15		1.00				
Incremental Delay, d2					1.8	0.3		0.7				
Delay (s)					30.1	41.7		4.7				
Level of Service					C	D		A				
Approach Delay (s)		0.0			33.8			4.7			0.0	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	22.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		

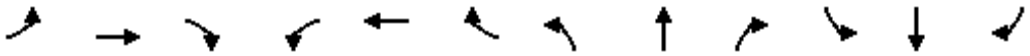
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	60	270	0	0	0	0	0	570	250
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	
Lane Util. Factor				0.91	0.91						1.00	
Frt				1.00	1.00						0.96	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1493	3256						1786	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1493	3256						1786	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	65	293	0	0	0	0	0	620	272
RTOR Reduction (vph)	0	0	0	50	9	0	0	0	0	0	10	0
Lane Group Flow (vph)	0	0	0	8	291	0	0	0	0	0	882	0
Heavy Vehicles (%)	2%	2%	2%	10%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type				Perm	NA						NA	
Protected Phases					8						6	
Permitted Phases				8								
Actuated Green, G (s)				14.4	14.4						77.6	
Effective Green, g (s)				14.4	14.4						77.6	
Actuated g/C Ratio				0.14	0.14						0.78	
Clearance Time (s)				4.0	4.0						4.0	
Vehicle Extension (s)				3.0	3.0						3.0	
Lane Grp Cap (vph)				214	468						1385	
v/s Ratio Prot											c0.49	
v/s Ratio Perm				0.01	0.09							
v/c Ratio				0.04	0.62						0.64	
Uniform Delay, d1				36.8	40.2						5.0	
Progression Factor				0.38	0.72						1.00	
Incremental Delay, d2				0.1	2.4						2.2	
Delay (s)				14.0	31.5						7.2	
Level of Service				B	C						A	
Approach Delay (s)		0.0			28.6			0.0			7.2	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	13.3	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)	8.0
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	0	10	90	280	150	20	100	0	0	440	0
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	
Lane Util. Factor		1.00		1.00	0.95			1.00			1.00	
Frt		0.93		1.00	0.95			1.00			1.00	
Flt Protected		0.98		0.95	1.00			0.99			1.00	
Satd. Flow (prot)		1695		1719	3297			1818			1863	
Flt Permitted		0.77		0.74	1.00			0.90			1.00	
Satd. Flow (perm)		1335		1344	3297			1652			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	0	11	98	304	163	22	109	0	0	478	0
RTOR Reduction (vph)	0	15	0	0	112	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	7	0	98	355	0	0	131	0	0	478	0
Heavy Vehicles (%)	2%	2%	2%	5%	2%	7%	2%	4%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		9.6		9.6	9.6			12.9			12.9	
Effective Green, g (s)		9.6		9.6	9.6			12.9			12.9	
Actuated g/C Ratio		0.31		0.31	0.31			0.42			0.42	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		420		423	1037			698			787	
v/s Ratio Prot					c0.11						c0.26	
v/s Ratio Perm		0.01		0.07				0.08				
v/c Ratio		0.02		0.23	0.34			0.19			0.61	
Uniform Delay, d1		7.2		7.7	8.0			5.5			6.8	
Progression Factor		1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2		0.0		0.3	0.2			0.1			1.3	
Delay (s)		7.2		8.0	8.2			5.6			8.2	
Level of Service		A		A	A			A			A	
Approach Delay (s)		7.2			8.2			5.6			8.2	
Approach LOS		A			A			A			A	

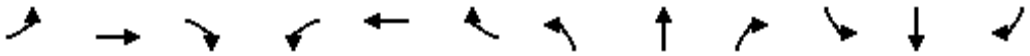
Intersection Summary			
HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	30.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	180	10	0	0	0	10	10	20	500	110	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	196	11	0	0	0	11	11	22	543	120	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1255	1266	125	1359	1261	22	130			33		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1255	1266	125	1359	1261	22	130			33		
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 %	90	0	99	0	100	100	99			65		
cM capacity (veh/h)	108	109	926	0	110	1055	1455			1560		

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	217	43	543	130
Volume Left	11	11	543	0
Volume Right	11	22	0	11
cSH	114	1455	1560	1700
Volume to Capacity	1.91	0.01	0.35	0.08
Queue Length 95th (ft)	440	1	40	0
Control Delay (s)	505.2	1.9	8.5	0.0
Lane LOS	F	A	A	
Approach Delay (s)	505.2	1.9	6.9	
Approach LOS	F			

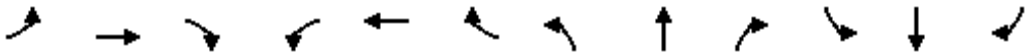
Intersection Summary				
Average Delay	122.5			
Intersection Capacity Utilization	51.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1070	180	0	0	0	0	0	0	530	100	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.91									0.95	
Frt		0.98									1.00	
Flt Protected		1.00									0.96	
Satd. Flow (prot)		4940									3355	
Flt Permitted		1.00									0.96	
Satd. Flow (perm)		4940									3355	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1163	196	0	0	0	0	0	0	576	109	0
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	0	0	29	0
Lane Group Flow (vph)	0	1330	0	0	0	0	0	0	0	0	656	0
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	2%	2%	2%	2%	10%	2%
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		40.0									32.0	
Effective Green, g (s)		40.0									32.0	
Actuated g/C Ratio		0.50									0.40	
Clearance Time (s)		4.0									4.0	
Vehicle Extension (s)		3.0									3.0	
Lane Grp Cap (vph)		2470									1342	
v/s Ratio Prot		c0.27										
v/s Ratio Perm											0.20	
v/c Ratio		0.54									0.49	
Uniform Delay, d1		13.7									17.9	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.8									1.3	
Delay (s)		14.5									19.2	
Level of Service		B									B	
Approach Delay (s)		14.5			0.0			0.0			19.2	
Approach LOS		B			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	16.1	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)	8.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

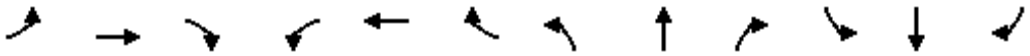
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	320	1280	0	0	0	0	0	100	130	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.91						0.95				
Frt		1.00						0.92				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5015						3051				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5015						3051				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	348	1391	0	0	0	0	0	109	141	0	0	0
RTOR Reduction (vph)	0	54	0	0	0	0	0	40	0	0	0	0
Lane Group Flow (vph)	0	1685	0	0	0	0	0	210	0	0	0	0
Heavy Vehicles (%)	4%	2%	2%	2%	2%	2%	2%	10%	7%	2%	2%	2%
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		50.0						22.0				
Effective Green, g (s)		50.0						22.0				
Actuated g/C Ratio		0.62						0.28				
Clearance Time (s)		4.0						4.0				
Vehicle Extension (s)		3.0						3.0				
Lane Grp Cap (vph)		3134						839				
v/s Ratio Prot								c0.07				
v/s Ratio Perm		0.34										
v/c Ratio		0.54						0.25				
Uniform Delay, d1		8.5						22.6				
Progression Factor		0.68						1.00				
Incremental Delay, d2		0.6						0.7				
Delay (s)		6.3						23.3				
Level of Service		A						C				
Approach Delay (s)		6.3			0.0			23.3			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

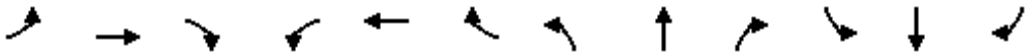


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	370	600	440	10	0	10	0	240	60	40	110	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0		4.0		4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00		1.00		0.95			0.95	
Frt	1.00	0.94		1.00		0.85		0.97			1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00			0.99	
Satd. Flow (prot)	1770	3315		1770		1583		3433			3493	
Flt Permitted	0.95	1.00		0.20		1.00		1.00			0.82	
Satd. Flow (perm)	1770	3315		380		1583		3433			2888	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	402	652	478	11	0	11	0	261	65	43	120	0
RTOR Reduction (vph)	0	129	0	0	0	4	0	32	0	0	0	0
Lane Group Flow (vph)	402	1001	0	11	0	7	0	295	0	0	163	0
Turn Type	Perm	NA		Perm		Perm		NA		Perm	NA	
Protected Phases		2						8			4	
Permitted Phases	2			6		6				4		
Actuated Green, G (s)	52.0	52.0		52.0		52.0		20.0			20.0	
Effective Green, g (s)	52.0	52.0		52.0		52.0		20.0			20.0	
Actuated g/C Ratio	0.65	0.65		0.65		0.65		0.25			0.25	
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)	1150	2154		247		1028		858			722	
v/s Ratio Prot		c0.30						c0.09				
v/s Ratio Perm	0.23			0.03		0.00					0.06	
v/c Ratio	0.35	0.46		0.04		0.01		0.34			0.23	
Uniform Delay, d1	6.3	7.0		5.0		4.9		24.6			23.8	
Progression Factor	0.34	0.14		1.00		1.00		1.00			1.00	
Incremental Delay, d2	0.7	0.6		0.1		0.0		0.2			0.2	
Delay (s)	2.9	1.6		5.1		4.9		24.9			24.0	
Level of Service	A	A		A		A		C			C	
Approach Delay (s)		1.9			5.0			24.9			24.0	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	7.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

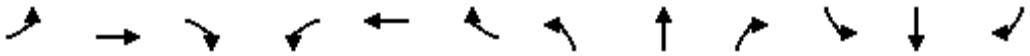
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	310	240	100	80	280	70	30	20	30	110	100	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2	4.2	4.2	4.2			4.2	4.2	4.6	4.6	
Lane Util. Factor	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	0.97			1.00	0.85	1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.97	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1863	1583	1770	1807			1808	1583	1770	1711	
Flt Permitted	0.40	1.00	1.00	0.54	1.00			0.74	1.00	0.19	1.00	
Satd. Flow (perm)	739	1863	1583	1006	1807			1375	1583	348	1711	
Peak-hour factor, PHF	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	323	250	104	87	304	76	33	22	33	120	109	130
RTOR Reduction (vph)	0	0	62	0	11	0	0	0	28	0	53	0
Lane Group Flow (vph)	323	250	42	87	369	0	0	55	5	120	186	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			1			2	
Permitted Phases	4		4	8			1		1	2		
Actuated Green, G (s)	32.6	32.6	32.6	32.6	32.6			13.0	13.0	21.4	21.4	
Effective Green, g (s)	32.6	32.6	32.6	32.6	32.6			13.0	13.0	21.4	21.4	
Actuated g/C Ratio	0.41	0.41	0.41	0.41	0.41			0.16	0.16	0.27	0.27	
Clearance Time (s)	4.2	4.2	4.2	4.2	4.2			4.2	4.2	4.6	4.6	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0			2.0	2.0	3.8	3.8	
Lane Grp Cap (vph)	301	759	645	409	736			223	257	93	457	
v/s Ratio Prot		0.13			0.20						0.11	
v/s Ratio Perm	c0.44		0.03	0.09				c0.04	0.00	c0.34		
v/c Ratio	1.07	0.33	0.07	0.21	0.50			0.25	0.02	1.29	0.41	
Uniform Delay, d1	23.7	16.2	14.4	15.4	17.6			29.2	28.2	29.3	24.1	
Progression Factor	1.00	1.00	1.00	0.69	0.67			1.00	1.00	1.00	1.00	
Incremental Delay, d2	72.6	1.2	0.2	1.0	2.0			2.6	0.1	189.8	2.7	
Delay (s)	96.3	17.4	14.6	11.6	13.9			31.8	28.3	219.1	26.7	
Level of Service	F	B	B	B	B			C	C	F	C	
Approach Delay (s)		54.6			13.5			30.5			91.1	
Approach LOS		D			B			C			F	

Intersection Summary			
HCM 2000 Control Delay	49.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	68.9%	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)	10	280	110	50	180	0	40	280	50	50	280	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.0	4.2		4.0	4.2	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	1.00		1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1784		1770	1863		1770	1821		1770	1774	
Flt Permitted	0.61	1.00		0.38	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1141	1784		702	1863		1770	1821		1770	1774	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	304	120	54	196	0	43	304	54	54	304	141
RTOR Reduction (vph)	0	16	0	0	0	0	0	8	0	0	22	0
Lane Group Flow (vph)	11	408	0	54	196	0	43	350	0	54	423	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8								
Actuated Green, G (s)	35.5	35.5		35.5	35.5		4.2	28.5		3.6	27.9	
Effective Green, g (s)	35.5	35.5		35.5	35.5		4.2	28.5		3.6	27.9	
Actuated g/C Ratio	0.44	0.44		0.44	0.44		0.05	0.36		0.05	0.35	
Clearance Time (s)	4.2	4.2		4.2	4.2		4.0	4.2		4.0	4.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	506	791		311	826		92	648		79	618	
v/s Ratio Prot		c0.23			0.11		0.02	0.19		c0.03	c0.24	
v/s Ratio Perm	0.01			0.08								
v/c Ratio	0.02	0.52		0.17	0.24		0.47	0.54		0.68	0.68	
Uniform Delay, d1	12.5	16.1		13.4	13.8		36.8	20.5		37.6	22.3	
Progression Factor	0.89	0.92		1.09	1.07		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	2.3		1.1	0.6		3.7	0.9		21.7	3.1	
Delay (s)	11.2	17.1		15.7	15.4		40.5	21.4		59.3	25.4	
Level of Service	B	B		B	B		D	C		E	C	
Approach Delay (s)		17.0			15.5			23.4			29.1	
Approach LOS		B			B			C			C	

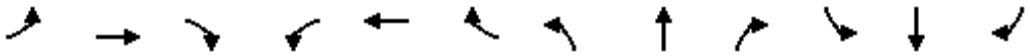
Intersection Summary			
HCM 2000 Control Delay	22.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	77.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	290	0	0	120	0	10	20	0	150	260	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.2			4.2			4.2	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	1.00			1.00			1.00			0.96	
Flt Protected	0.95	1.00			1.00			0.98			0.99	
Satd. Flow (prot)	1770	1863			1863			1832			1758	
Flt Permitted	0.67	1.00			1.00			0.86			0.91	
Satd. Flow (perm)	1255	1863			1863			1599			1612	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	315	0	0	130	0	11	22	0	163	283	185
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	26	0
Lane Group Flow (vph)	54	315	0	0	130	0	0	33	0	0	605	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			8			2			2	
Permitted Phases	8			8			2			2		
Actuated Green, G (s)	31.8	31.8			31.8			39.8			39.8	
Effective Green, g (s)	31.8	31.8			31.8			39.8			39.8	
Actuated g/C Ratio	0.40	0.40			0.40			0.50			0.50	
Clearance Time (s)	4.2	4.2			4.2			4.2			4.2	
Vehicle Extension (s)	3.4	3.4			3.4			3.4			3.4	
Lane Grp Cap (vph)	498	740			740			795			801	
v/s Ratio Prot		c0.17			0.07							
v/s Ratio Perm	0.04							0.02			c0.38	
v/c Ratio	0.11	0.43			0.18			0.04			0.76	
Uniform Delay, d1	15.2	17.5			15.6			10.3			16.2	
Progression Factor	1.05	0.96			0.82			1.00			1.00	
Incremental Delay, d2	0.4	1.6			0.5			0.0			4.2	
Delay (s)	16.4	18.4			13.4			10.3			20.4	
Level of Service	B	B			B			B			C	
Approach Delay (s)		18.1			13.4			10.3			20.4	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM 2000 Control Delay	18.6	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)	8.4
Intersection Capacity Utilization	61.3%	ICU Level of Service	B
Analysis Period (min)	15		

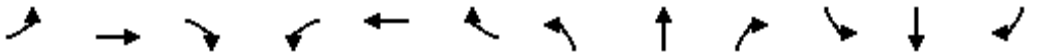
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	200	40	10	10	0	20	50	210	30	10	80	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.0			4.2			4.2	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.97			0.91			0.99			1.00	
Flt Protected	0.95	1.00			0.98			0.99			0.99	
Satd. Flow (prot)	1736	1806			1667			1804			1852	
Flt Permitted	0.74	1.00			0.95			0.94			0.96	
Satd. Flow (perm)	1344	1806			1609			1702			1784	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	43	11	11	0	22	54	228	33	11	87	0
RTOR Reduction (vph)	0	5	0	0	9	0	0	6	0	0	0	0
Lane Group Flow (vph)	217	49	0	0	24	0	0	309	0	0	98	0
Heavy Vehicles (%)	4%	2%	2%	2%	2%	2%	2%	3%	4%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			4	
Permitted Phases	2			6			4			4		
Actuated Green, G (s)	45.4	45.4			45.6			26.2			26.2	
Effective Green, g (s)	45.4	45.4			45.6			26.2			26.2	
Actuated g/C Ratio	0.57	0.57			0.57			0.33			0.33	
Clearance Time (s)	4.2	4.2			4.0			4.2			4.2	
Vehicle Extension (s)	5.0	5.0			3.0			5.0			5.0	
Lane Grp Cap (vph)	762	1024			917			557			584	
v/s Ratio Prot		0.03										
v/s Ratio Perm	c0.16				0.01			c0.18			0.05	
v/c Ratio	0.28	0.05			0.03			0.55			0.17	
Uniform Delay, d1	8.9	7.7			7.5			22.1			19.1	
Progression Factor	0.65	0.62			1.00			1.00			1.00	
Incremental Delay, d2	0.8	0.1			0.1			2.0			0.3	
Delay (s)	6.7	4.8			7.6			24.1			19.4	
Level of Service	A	A			A			C			B	
Approach Delay (s)		6.3			7.6			24.1			19.4	
Approach LOS		A			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	50.1%	ICU Level of Service	A
Analysis Period (min)	15		

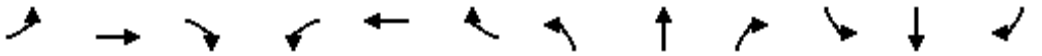
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	330	890	130	10	710	70	20	30	60	140	160	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.1	4.2		4.1	4.2		4.2	4.2		4.2	4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.99		1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1736	3385		1770	3407		1770	1604		1671	1792	1538
Flt Permitted	0.95	1.00		0.95	1.00		0.51	1.00		0.69	1.00	1.00
Satd. Flow (perm)	1736	3385		1770	3407		943	1604		1219	1792	1538
Peak-hour factor, PHF	1.00	1.00	1.00	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	330	890	130	11	772	76	22	33	65	152	174	43
RTOR Reduction (vph)	0	10	0	0	8	0	0	53	0	0	0	35
Lane Group Flow (vph)	330	1010	0	11	840	0	22	45	0	152	174	8
Heavy Vehicles (%)	4%	5%	2%	2%	4%	10%	2%	2%	9%	8%	6%	5%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	3	8		7	4			6			2	
Permitted Phases							6			2		2
Actuated Green, G (s)	32.2	60.0		0.8	28.6		16.7	16.7		16.7	16.7	16.7
Effective Green, g (s)	32.2	60.0		0.8	28.6		16.7	16.7		16.7	16.7	16.7
Actuated g/C Ratio	0.36	0.67		0.01	0.32		0.19	0.19		0.19	0.19	0.19
Clearance Time (s)	4.1	4.2		4.1	4.2		4.2	4.2		4.2	4.2	4.2
Vehicle Extension (s)	2.0	6.0		2.0	6.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	621	2256		15	1082		174	297		226	332	285
v/s Ratio Prot	c0.19	0.30		0.01	c0.25			0.03			0.10	
v/s Ratio Perm							0.02			c0.12		0.01
v/c Ratio	0.53	0.45		0.73	0.78		0.13	0.15		0.67	0.52	0.03
Uniform Delay, d1	22.9	7.1		44.5	27.8		30.6	30.7		34.1	33.1	30.0
Progression Factor	1.00	1.00		0.83	1.19		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.2	0.6		86.0	4.9		0.4	0.3		8.3	1.9	0.1
Delay (s)	26.2	7.8		123.0	37.9		31.0	31.0		42.4	35.0	30.1
Level of Service	C	A		F	D		C	C		D	D	C
Approach Delay (s)		12.3			39.0			31.0			37.5	
Approach LOS		B			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		

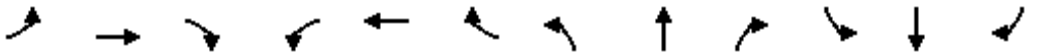
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	1000	180	190	780	60	150	30	90	60	30	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.99		1.00	0.89		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3430		1770	3378		1770	1654		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	3430		1770	3378		1770	1654		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	1087	196	207	848	65	163	33	98	65	33	22
RTOR Reduction (vph)	0	14	0	0	5	0	0	87	0	0	0	20
Lane Group Flow (vph)	22	1269	0	207	908	0	163	44	0	65	33	2
Heavy Vehicles (%)	2%	3%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	2.3	43.2		13.4	54.3		9.9	9.9		7.1	7.1	7.1
Effective Green, g (s)	2.3	43.2		13.4	54.3		9.9	9.9		7.1	7.1	7.1
Actuated g/C Ratio	0.03	0.48		0.15	0.60		0.11	0.11		0.08	0.08	0.08
Clearance Time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	4.2
Vehicle Extension (s)	2.0	6.0		2.0	6.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	45	1646		263	2038		194	181		139	146	124
v/s Ratio Prot	0.01	c0.37		c0.12	0.27		c0.09	0.03		c0.04	0.02	
v/s Ratio Perm												0.00
v/c Ratio	0.49	0.77		0.79	0.45		0.84	0.24		0.47	0.23	0.01
Uniform Delay, d1	43.3	19.3		36.9	9.7		39.3	36.6		39.6	38.9	38.2
Progression Factor	1.13	0.80		0.78	0.65		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.9	3.4		12.3	0.6		25.6	0.3		0.9	0.3	0.0
Delay (s)	51.6	18.9		41.3	6.9		64.9	36.9		40.5	39.2	38.2
Level of Service	D	B		D	A		E	D		D	D	D
Approach Delay (s)		19.4			13.3			52.4			39.7	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.4
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

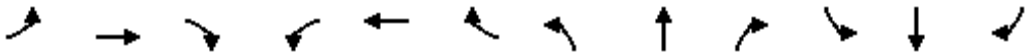
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1080	70	290	730	0	0	0	0	470	240	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		5.2	5.2					4.7	4.7	4.7
Lane Util. Factor		0.95		1.00	0.95					1.00	1.00	1.00
Frt		0.99		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (prot)		3475		1770	3406					1770	1863	1583
Flt Permitted		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (perm)		3475		1770	3406					1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1174	76	315	793	0	0	0	0	511	261	326
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	0	0	0	123
Lane Group Flow (vph)	0	1245	0	315	793	0	0	0	0	511	261	203
Heavy Vehicles (%)	2%	3%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Actuated Green, G (s)		36.8		9.8	51.8					28.3	28.3	28.3
Effective Green, g (s)		36.8		9.8	51.8					28.3	28.3	28.3
Actuated g/C Ratio		0.41		0.11	0.58					0.31	0.31	0.31
Clearance Time (s)		5.2		5.2	5.2					4.7	4.7	4.7
Vehicle Extension (s)		0.2		2.0	0.2					6.2	6.2	6.2
Lane Grp Cap (vph)		1420		192	1960					556	585	497
v/s Ratio Prot		c0.36		c0.18	0.23						0.14	
v/s Ratio Perm										c0.29		0.13
v/c Ratio		0.88		1.64	0.40					0.92	0.45	0.41
Uniform Delay, d1		24.5		40.1	10.6					29.7	24.6	24.3
Progression Factor		0.45		1.12	0.67					1.00	1.00	1.00
Incremental Delay, d2		6.0		300.0	0.3					21.9	1.6	1.6
Delay (s)		17.0		344.8	7.4					51.6	26.2	25.9
Level of Service		B		F	A					D	C	C
Approach Delay (s)		17.0			103.3			0.0			37.9	
Approach LOS		B			F			A			D	

Intersection Summary			
HCM 2000 Control Delay	51.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	126.7%	ICU Level of Service	H
Analysis Period (min)	15		

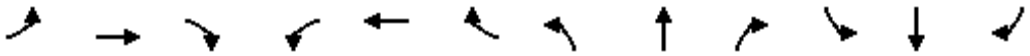
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	360	1190	0	0	840	250	180	190	640	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.7	5.2			5.2	5.2		5.4	5.4			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.95	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.98	1.00			
Satd. Flow (prot)	1770	3505			3406	1583		3455	1583			
Flt Permitted	0.95	1.00			1.00	1.00		0.98	1.00			
Satd. Flow (perm)	1770	3505			3406	1583		3455	1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	379	1253	0	0	913	272	196	207	696	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	196	0	0	57	0	0	0
Lane Group Flow (vph)	379	1253	0	0	913	76	0	403	639	0	0	0
Heavy Vehicles (%)	2%	3%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	17.3	46.2			25.2	25.2		33.2	33.2			
Effective Green, g (s)	17.3	46.2			25.2	25.2		33.2	33.2			
Actuated g/C Ratio	0.19	0.51			0.28	0.28		0.37	0.37			
Clearance Time (s)	3.7	5.2			5.2	5.2		5.4	5.4			
Vehicle Extension (s)	2.0	0.2			0.2	0.2		5.0	5.0			
Lane Grp Cap (vph)	340	1799			953	443		1274	583			
v/s Ratio Prot	c0.21	0.36			c0.27							
v/s Ratio Perm						0.05		0.12	c0.40			
v/c Ratio	1.11	0.70			0.96	0.17		0.32	1.10			
Uniform Delay, d1	36.4	16.6			31.9	24.5		20.3	28.4			
Progression Factor	0.86	0.70			0.72	0.36		1.00	1.00			
Incremental Delay, d2	68.4	1.0			19.5	0.8		0.3	66.3			
Delay (s)	99.8	12.6			42.5	9.5		20.6	94.7			
Level of Service	F	B			D	A		C	F			
Approach Delay (s)		32.8			34.9			67.6			0.0	
Approach LOS		C			C			E			A	

Intersection Summary			
HCM 2000 Control Delay	43.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.3
Intersection Capacity Utilization	126.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	270	1370	190	10	840	40	100	40	20	190	80	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frt	1.00	0.98		1.00	0.99			0.98			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.98	
Satd. Flow (prot)	1770	3437		1770	3320			3266			3068	
Flt Permitted	0.27	1.00		0.09	1.00			0.61			0.75	
Satd. Flow (perm)	503	3437		172	3320			2059			2368	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	1489	207	11	913	43	109	43	22	207	87	163
RTOR Reduction (vph)	0	10	0	0	3	0	0	14	0	0	92	0
Lane Group Flow (vph)	293	1686	0	11	953	0	0	160	0	0	365	0
Heavy Vehicles (%)	2%	3%	4%	2%	8%	8%	7%	2%	2%	10%	8%	8%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	63.3	63.3		63.3	63.3			18.3			18.3	
Effective Green, g (s)	63.3	63.3		63.3	63.3			18.3			18.3	
Actuated g/C Ratio	0.70	0.70		0.70	0.70			0.20			0.20	
Clearance Time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			2.0			2.0	
Lane Grp Cap (vph)	353	2417		120	2335			418			481	
v/s Ratio Prot		0.49			0.29							
v/s Ratio Perm	c0.58			0.06				0.08			c0.15	
v/c Ratio	0.83	0.70		0.09	0.41			0.89dl			0.76	
Uniform Delay, d1	9.5	7.8		4.2	5.6			31.0			33.8	
Progression Factor	0.69	0.60		1.61	1.84			1.03			1.00	
Incremental Delay, d2	11.8	0.9		0.6	0.2			0.2			6.0	
Delay (s)	18.3	5.6		7.4	10.4			32.3			39.8	
Level of Service	B	A		A	B			C			D	
Approach Delay (s)		7.5			10.4			32.3			39.8	
Approach LOS		A			B			C			D	

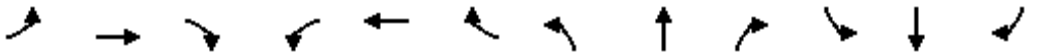
Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

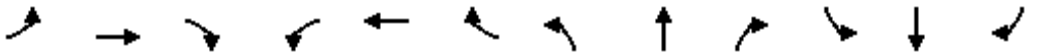
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	130	620	100	70	420	180	100	340	190	100	240	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.1	4.2		4.1	4.2		4.1	4.2		4.1	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.95		1.00	0.95		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3466		1770	3380		1770	1763		1770	1807	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3466		1770	3380		1770	1763		1770	1807	
Peak-hour factor, PHF	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	135	646	104	76	457	196	109	370	207	109	261	65
RTOR Reduction (vph)	0	14	0	0	54	0	0	21	0	0	9	0
Lane Group Flow (vph)	135	736	0	76	599	0	109	556	0	109	317	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	9.6	27.2		6.3	23.9		9.8	32.1		7.8	30.1	
Effective Green, g (s)	9.6	27.2		6.3	23.9		9.8	32.1		7.8	30.1	
Actuated g/C Ratio	0.11	0.30		0.07	0.27		0.11	0.36		0.09	0.33	
Clearance Time (s)	4.1	4.2		4.1	4.2		4.1	4.2		4.1	4.2	
Vehicle Extension (s)	3.0	5.0		3.0	5.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	188	1047		123	897		192	628		153	604	
v/s Ratio Prot	c0.08	c0.21		0.04	0.18		0.06	c0.32		c0.06	0.18	
v/s Ratio Perm												
v/c Ratio	0.72	0.70		0.62	0.67		0.57	0.88		0.71	0.52	
Uniform Delay, d1	38.9	27.8		40.7	29.5		38.1	27.2		40.0	24.2	
Progression Factor	0.68	0.44		0.91	0.77		0.64	0.52		1.00	1.00	
Incremental Delay, d2	8.9	2.8		8.4	3.7		2.0	9.8		14.5	3.2	
Delay (s)	35.3	15.0		45.5	26.5		26.4	23.9		54.5	27.4	
Level of Service	D	B		D	C		C	C		D	C	
Approach Delay (s)		18.1			28.5			24.3			34.2	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	25.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.6
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



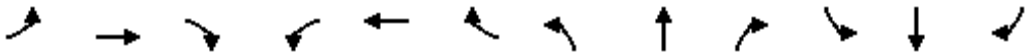
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	650	190	120	690	0	110	20	20	40	250	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.0	4.0		4.2	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.93		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3419		1770	3539		1770	1723		1770	1816	
Flt Permitted	0.35	1.00		0.27	1.00		0.30	1.00		0.73	1.00	
Satd. Flow (perm)	643	3419		510	3539		563	1723		1357	1816	
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	707	207	128	734	0	120	22	22	43	272	54
RTOR Reduction (vph)	0	27	0	0	0	0	0	16	0	0	8	0
Lane Group Flow (vph)	11	887	0	128	734	0	120	28	0	43	318	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			8			4	
Permitted Phases	2			2			8			4		
Actuated Green, G (s)	58.8	58.8		58.8	58.8		23.0	23.0		22.8	22.8	
Effective Green, g (s)	58.8	58.8		58.8	58.8		23.0	23.0		22.8	22.8	
Actuated g/C Ratio	0.65	0.65		0.65	0.65		0.26	0.26		0.25	0.25	
Clearance Time (s)	4.2	4.2		4.2	4.2		4.0	4.0		4.2	4.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	420	2233		333	2312		143	440		343	460	
v/s Ratio Prot		c0.26			0.21			0.02			0.17	
v/s Ratio Perm	0.02			0.25			c0.21			0.03		
v/c Ratio	0.03	0.40		0.38	0.32		0.84	0.06		0.13	0.69	
Uniform Delay, d1	5.5	7.3		7.2	6.8		31.7	25.3		25.9	30.4	
Progression Factor	0.95	0.76		1.00	1.00		0.76	0.63		1.00	1.00	
Incremental Delay, d2	0.1	0.4		3.3	0.4		32.6	0.1		0.2	4.4	
Delay (s)	5.3	5.9		10.6	7.2		56.7	16.1		26.1	34.9	
Level of Service	A	A		B	A		E	B		C	C	
Approach Delay (s)		5.9			7.7			45.8			33.8	
Approach LOS		A			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	88.3%	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)	30	470	90	100	750	60	70	60	40	50	130	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.99		1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	3456		1770	3500		1770	1751		1719	1743	1482
Flt Permitted	0.29	1.00		0.40	1.00		0.67	1.00		0.69	1.00	1.00
Satd. Flow (perm)	495	3456		752	3500		1243	1751		1244	1743	1482
Peak-hour factor, PHF	0.92	0.92	0.95	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	511	95	105	789	63	76	65	43	54	141	22
RTOR Reduction (vph)	0	26	0	0	10	0	0	30	0	0	0	15
Lane Group Flow (vph)	33	580	0	105	842	0	76	78	0	54	141	7
Heavy Vehicles (%)	10%	2%	2%	2%	2%	2%	2%	2%	2%	5%	9%	9%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		2
Actuated Green, G (s)	33.6	33.6		33.6	33.6		18.0	18.0		18.0	18.0	18.0
Effective Green, g (s)	33.6	33.6		33.6	33.6		18.0	18.0		18.0	18.0	18.0
Actuated g/C Ratio	0.56	0.56		0.56	0.56		0.30	0.30		0.30	0.30	0.30
Clearance Time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Grp Cap (vph)	277	1935		421	1960		372	525		373	522	444
v/s Ratio Prot		0.17			c0.24			0.04			c0.08	
v/s Ratio Perm	0.07			0.14			0.06			0.04		0.00
v/c Ratio	0.12	0.30		0.25	0.43		0.20	0.15		0.14	0.27	0.01
Uniform Delay, d1	6.2	7.0		6.8	7.6		15.7	15.4		15.4	16.0	14.8
Progression Factor	1.00	1.00		0.23	0.23		0.76	0.67		1.00	1.00	1.00
Incremental Delay, d2	0.9	0.4		1.2	0.6		1.1	0.5		0.8	1.3	0.1
Delay (s)	7.1	7.4		2.8	2.4		12.9	10.9		16.2	17.3	14.8
Level of Service	A	A		A	A		B	B		B	B	B
Approach Delay (s)		7.4			2.4			11.7			16.8	
Approach LOS		A			A			B			B	

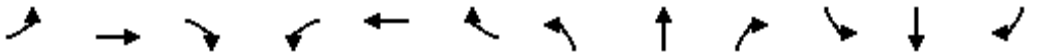
Intersection Summary			
HCM 2000 Control Delay	6.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	540	0	10	750	180	50	200	40	80	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.97		1.00	0.98		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539		1770	3436		1770	1817		1770	1723	
Flt Permitted	0.20	1.00		0.41	1.00		0.74	1.00		0.54	1.00	
Satd. Flow (perm)	365	3539		772	3436		1384	1817		1006	1723	
Peak-hour factor, PHF	0.97	0.97	0.97	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	557	0	11	815	196	54	217	43	87	11	11
RTOR Reduction (vph)	0	0	0	0	35	0	0	12	0	0	7	0
Lane Group Flow (vph)	41	557	0	11	976	0	54	248	0	87	15	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			6	
Permitted Phases	4			4			2			6		
Actuated Green, G (s)	28.8	28.8		28.8	28.8		23.0	23.0		23.0	23.0	
Effective Green, g (s)	28.8	28.8		28.8	28.8		23.0	23.0		23.0	23.0	
Actuated g/C Ratio	0.48	0.48		0.48	0.48		0.38	0.38		0.38	0.38	
Clearance Time (s)	4.2	4.2		4.2	4.2		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	175	1698		370	1649		530	696		385	660	
v/s Ratio Prot		0.16			c0.28			c0.14			0.01	
v/s Ratio Perm	0.11			0.01			0.04			0.09		
v/c Ratio	0.23	0.33		0.03	0.59		0.10	0.36		0.23	0.02	
Uniform Delay, d1	9.1	9.6		8.2	11.3		11.9	13.2		12.5	11.5	
Progression Factor	0.80	0.83		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.0	0.5		0.1	1.6		0.4	1.4		1.4	0.1	
Delay (s)	10.3	8.5		8.4	12.9		12.3	14.6		13.8	11.6	
Level of Service	B	A		A	B		B	B		B	B	
Approach Delay (s)		8.6			12.9			14.2			13.4	
Approach LOS		A			B			B			B	

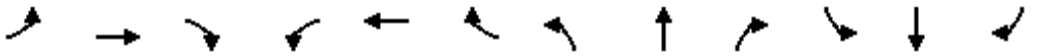
Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	70	10	680	110	380	40	260	350	260	270	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6		4.6	4.6	4.6	4.0	4.6	4.6	4.0	4.6	4.6
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1827		1681	1708	1583	1770	1863	1583	1770	3539	1583
Flt Permitted	0.95	1.00		0.95	0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1827		1681	1708	1583	1770	1863	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	76	11	739	120	413	43	283	380	283	293	98
RTOR Reduction (vph)	0	6	0	0	0	289	0	0	195	0	0	64
Lane Group Flow (vph)	33	81	0	429	430	124	43	283	185	283	293	34
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	8	8		4	4		1	6	4	5	2	
Permitted Phases						4			6			2
Actuated Green, G (s)	9.7	9.7		26.6	26.6	26.6	3.3	16.4	43.0	17.9	31.0	31.0
Effective Green, g (s)	9.7	9.7		26.6	26.6	26.6	3.3	16.4	43.0	17.9	31.0	31.0
Actuated g/C Ratio	0.11	0.11		0.30	0.30	0.30	0.04	0.19	0.49	0.20	0.35	0.35
Clearance Time (s)	4.6	4.6		4.6	4.6	4.6	4.0	4.6	4.6	4.0	4.6	4.6
Vehicle Extension (s)	3.0	3.0		3.5	3.5	3.5	2.0	4.8	3.5	3.0	4.8	4.8
Lane Grp Cap (vph)	194	200		505	513	476	66	345	852	358	1241	555
v/s Ratio Prot	0.02	c0.04		c0.26	0.25		0.02	c0.15	0.07	c0.16	0.08	
v/s Ratio Perm						0.08			0.05			0.02
v/c Ratio	0.17	0.40		0.85	0.84	0.26	0.65	0.82	0.22	0.79	0.24	0.06
Uniform Delay, d1	35.7	36.7		29.0	28.9	23.4	42.0	34.6	13.0	33.5	20.3	19.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	1.3		12.9	11.7	0.3	16.2	15.9	0.2	11.3	0.2	0.1
Delay (s)	36.1	38.0		41.9	40.6	23.8	58.2	50.4	13.2	44.8	20.5	19.1
Level of Service	D	D		D	D	C	E	D	B	D	C	B
Approach Delay (s)		37.5			35.6			30.9			30.5	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	33.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	88.4	Sum of lost time (s)	17.8
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	350	120	50	360	260	70	300	40	90	260	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.94		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3404		1770	3316		1770	1830		1770	1863	1583
Flt Permitted	0.29	1.00		0.39	1.00		0.54	1.00		0.46	1.00	1.00
Satd. Flow (perm)	539	3404		729	3316		1007	1830		863	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	380	130	54	391	283	76	326	43	98	283	98
RTOR Reduction (vph)	0	37	0	0	145	0	0	5	0	0	0	47
Lane Group Flow (vph)	43	473	0	54	529	0	76	364	0	98	283	51
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	34.8	34.8		34.8	34.8		46.5	46.5		46.5	46.5	46.5
Effective Green, g (s)	34.8	34.8		34.8	34.8		46.5	46.5		46.5	46.5	46.5
Actuated g/C Ratio	0.39	0.39		0.39	0.39		0.52	0.52		0.52	0.52	0.52
Clearance Time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	4.5
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)	208	1316		281	1282		520	945		445	962	817
v/s Ratio Prot		0.14			c0.16			c0.20			0.15	
v/s Ratio Perm	0.08			0.07			0.08			0.11		0.03
v/c Ratio	0.21	0.36		0.19	0.41		0.15	0.38		0.22	0.29	0.06
Uniform Delay, d1	18.4	19.7		18.3	20.1		11.4	13.1		11.9	12.4	10.9
Progression Factor	0.93	0.98		1.30	1.41		1.00	1.00		1.06	1.07	1.24
Incremental Delay, d2	2.0	0.7		1.1	0.7		0.6	1.2		0.1	0.1	0.0
Delay (s)	19.2	19.9		24.9	29.2		12.0	14.3		12.7	13.3	13.4
Level of Service	B	B		C	C		B	B		B	B	B
Approach Delay (s)		19.9			28.9			13.9			13.2	
Approach LOS		B			C			B			B	

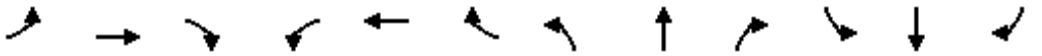
Intersection Summary			
HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.7
Intersection Capacity Utilization	90.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	370	110	40	600	160	50	440	60	90	190	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	0.97		1.00	0.98		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3417		1770	3427		1770	1829		1770	1796	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3417		1770	3427		1770	1829		1770	1796	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.96	0.96	0.96
Adj. Flow (vph)	87	402	120	43	652	174	54	478	65	94	198	62
RTOR Reduction (vph)	0	28	0	0	25	0	0	5	0	0	13	0
Lane Group Flow (vph)	87	494	0	43	801	0	54	538	0	94	247	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	5.4	34.5		3.6	32.7		5.8	28.2		7.3	29.7	
Effective Green, g (s)	5.4	34.5		3.6	32.7		5.8	28.2		7.3	29.7	
Actuated g/C Ratio	0.06	0.38		0.04	0.36		0.06	0.31		0.08	0.33	
Clearance Time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	5.0		2.0	5.0	
Lane Grp Cap (vph)	106	1309		70	1245		114	573		143	592	
v/s Ratio Prot	c0.05	0.14		0.02	c0.23		0.03	c0.29		c0.05	0.14	
v/s Ratio Perm												
v/c Ratio	0.82	0.38		0.61	0.64		0.47	0.94		0.66	0.42	
Uniform Delay, d1	41.8	20.0		42.5	23.8		40.6	30.1		40.1	23.4	
Progression Factor	1.33	0.99		0.71	0.58		1.00	1.00		0.60	0.50	
Incremental Delay, d2	32.2	0.7		8.6	2.0		1.1	23.8		6.8	0.8	
Delay (s)	87.7	20.5		38.8	15.8		41.8	53.9		30.9	12.6	
Level of Service	F	C		D	B		D	D		C	B	
Approach Delay (s)		30.1			16.9			52.8			17.5	
Approach LOS		C			B			D			B	

Intersection Summary			
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.4
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

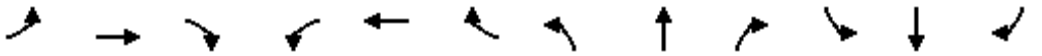
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	320	60	90	780	30	50	50	130	100	320	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.99		1.00	0.89		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3456		1770	3519		1770	1661		1770	1762	
Flt Permitted	0.18	1.00		0.46	1.00		0.32	1.00		0.62	1.00	
Satd. Flow (perm)	344	3456		864	3519		594	1661		1163	1762	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	348	65	98	848	33	54	54	141	109	348	196
RTOR Reduction (vph)	0	17	0	0	3	0	0	68	0	0	23	0
Lane Group Flow (vph)	11	396	0	98	878	0	54	127	0	109	521	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	34.5	34.5		34.5	34.5		46.5	46.5		46.5	46.5	
Effective Green, g (s)	34.5	34.5		34.5	34.5		46.5	46.5		46.5	46.5	
Actuated g/C Ratio	0.38	0.38		0.38	0.38		0.52	0.52		0.52	0.52	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	131	1324		331	1348		306	858		600	910	
v/s Ratio Prot		0.11			c0.25			0.08			c0.30	
v/s Ratio Perm	0.03			0.11			0.09			0.09		
v/c Ratio	0.08	0.30		0.30	0.65		0.18	0.15		0.18	0.57	
Uniform Delay, d1	17.7	19.3		19.3	22.8		11.6	11.4		11.6	14.9	
Progression Factor	0.28	0.33		1.00	1.00		0.59	1.22		0.91	0.79	
Incremental Delay, d2	1.1	0.5		2.3	2.5		1.1	0.3		0.6	2.4	
Delay (s)	6.1	7.0		21.6	25.3		7.9	14.2		11.1	14.2	
Level of Service	A	A		C	C		A	B		B	B	
Approach Delay (s)		7.0			24.9			12.8			13.7	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	102.8%	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)	30	300	40	130	1060	100	20	170	30	70	110	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.2			4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	1.00
Frt	1.00	0.98		1.00	0.99			0.98			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.98	1.00
Satd. Flow (prot)	1736	3389		1770	3493			1820			1820	1468
Flt Permitted	0.14	1.00		0.53	1.00			0.97			0.82	1.00
Satd. Flow (perm)	252	3389		991	3493			1768			1524	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	326	43	141	1152	109	22	185	33	76	120	65
RTOR Reduction (vph)	0	17	0	0	12	0	0	9	0	0	0	27
Lane Group Flow (vph)	33	352	0	141	1249	0	0	231	0	0	196	38
Heavy Vehicles (%)	4%	5%	2%	2%	2%	2%	2%	2%	2%	3%	2%	10%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	29.0	29.0		29.0	29.0			22.6			22.6	22.6
Effective Green, g (s)	29.0	29.0		29.0	29.0			22.6			22.6	22.6
Actuated g/C Ratio	0.48	0.48		0.48	0.48			0.38			0.38	0.38
Clearance Time (s)	4.2	4.2		4.2	4.2			4.2			4.2	4.2
Lane Grp Cap (vph)	121	1638		478	1688			665			574	552
v/s Ratio Prot		0.10			c0.36							
v/s Ratio Perm	0.13			0.14				c0.13			0.13	0.03
v/c Ratio	0.27	0.21		0.29	0.74			0.35			0.34	0.07
Uniform Delay, d1	9.2	8.9		9.3	12.5			13.4			13.4	12.0
Progression Factor	1.00	1.00		1.00	1.00			1.00			0.79	0.69
Incremental Delay, d2	5.5	0.3		1.6	3.0			1.4			1.6	0.2
Delay (s)	14.7	9.2		10.9	15.4			14.8			12.2	8.5
Level of Service	B	A		B	B			B			B	A
Approach Delay (s)		9.7			15.0			14.8			11.3	
Approach LOS		A			B			B			B	

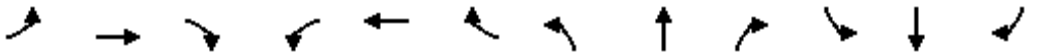
Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	310	10	10	1240	110	40	220	50	30	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2	4.2	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93	
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	3425		1770	3539	1583	1770	1863	1583	1770	1723	
Flt Permitted	0.16	1.00		0.54	1.00	1.00	0.74	1.00	1.00	0.36	1.00	
Satd. Flow (perm)	305	3425		1012	3539	1583	1384	1863	1583	664	1723	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	337	11	11	1348	120	43	239	54	33	11	11
RTOR Reduction (vph)	0	2	0	0	0	21	0	0	30	0	9	0
Lane Group Flow (vph)	54	346	0	11	1348	99	43	239	24	33	13	0
Heavy Vehicles (%)	2%	5%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		8			4			6			6	
Permitted Phases	8			4		4	6		6	6		
Actuated Green, G (s)	64.6	64.6		64.6	64.6	64.6	17.2	17.2	17.2	17.2	17.2	
Effective Green, g (s)	64.6	64.6		64.6	64.6	64.6	17.2	17.2	17.2	17.2	17.2	
Actuated g/C Ratio	0.72	0.72		0.72	0.72	0.72	0.19	0.19	0.19	0.19	0.19	
Clearance Time (s)	4.2	4.2		4.2	4.2	4.2	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	218	2458		726	2540	1136	264	356	302	126	329	
v/s Ratio Prot		0.10			c0.38			c0.13			0.01	
v/s Ratio Perm	0.18			0.01		0.06	0.03		0.02	0.05		
v/c Ratio	0.25	0.14		0.02	0.53	0.09	0.16	0.67	0.08	0.26	0.04	
Uniform Delay, d1	4.4	4.0		3.6	5.8	3.8	30.4	33.8	29.9	31.0	29.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.91	0.90	1.02	1.00	1.00	
Incremental Delay, d2	2.7	0.1		0.0	0.8	0.2	0.3	4.8	0.1	1.1	0.0	
Delay (s)	7.1	4.1		3.7	6.6	4.0	28.0	35.3	30.6	32.1	29.7	
Level of Service	A	A		A	A	A	C	D	C	C	C	
Approach Delay (s)		4.5			6.4			33.6			31.2	
Approach LOS		A			A			C			C	

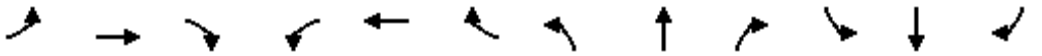
Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



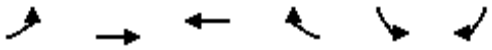
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	380	60	320	1210	180	0	0	0	40	190	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6		4.6	4.6						4.6	4.6
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frt	1.00	0.98		1.00	0.98						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.99	1.00
Satd. Flow (prot)	1770	3467		1770	3470						1847	1583
Flt Permitted	0.12	1.00		0.48	1.00						0.99	1.00
Satd. Flow (perm)	220	3467		901	3470						1847	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	32	404	64	348	1315	196	0	0	0	43	207	54
RTOR Reduction (vph)	0	10	0	0	9	0	0	0	0	0	0	18
Lane Group Flow (vph)	32	458	0	348	1502	0	0	0	0	0	250	36
Turn Type	Perm	NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases	2			6						4		4
Actuated Green, G (s)	49.6	49.6		49.6	49.6						16.2	16.2
Effective Green, g (s)	49.6	49.6		49.6	49.6						16.2	16.2
Actuated g/C Ratio	0.66	0.66		0.66	0.66						0.22	0.22
Clearance Time (s)	4.6	4.6		4.6	4.6						4.6	4.6
Vehicle Extension (s)	4.1	4.1		4.1	4.1						0.2	0.2
Lane Grp Cap (vph)	145	2292		595	2294						398	341
v/s Ratio Prot		0.13			c0.43							
v/s Ratio Perm	0.15			0.39							0.14	0.02
v/c Ratio	0.22	0.20		0.58	0.65						0.63	0.11
Uniform Delay, d1	5.0	5.0		7.0	7.6						26.7	23.6
Progression Factor	1.00	1.00		0.96	0.91						1.00	1.00
Incremental Delay, d2	3.5	0.2		3.3	1.2						2.2	0.0
Delay (s)	8.5	5.2		10.0	8.1						28.9	23.6
Level of Service	A	A		B	A						C	C
Approach Delay (s)		5.4			8.4			0.0			28.0	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	9.2
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	540	10	0	470	0	0	0	0	440	920	820
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.1			4.1					4.6	4.6	3.6
Lane Util. Factor		0.95			0.95					0.91	0.91	1.00
Frt		1.00			1.00					1.00	1.00	0.85
Flt Protected		1.00			1.00					0.95	1.00	1.00
Satd. Flow (prot)		3529			3539					1610	3382	1583
Flt Permitted		1.00			1.00					0.95	1.00	1.00
Satd. Flow (perm)		3529			3539					1610	3382	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	587	11	0	511	0	0	0	0	478	1000	891
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	0	0	0	324
Lane Group Flow (vph)	0	596	0	0	511	0	0	0	0	430	1048	567
Turn Type		NA			NA					Split	NA	custom
Protected Phases		2			6					4	4	
Permitted Phases												7
Actuated Green, G (s)		23.2			23.2					43.1	43.1	35.4
Effective Green, g (s)		23.2			23.2					43.1	43.1	35.4
Actuated g/C Ratio		0.31			0.31					0.57	0.57	0.47
Clearance Time (s)		4.1			4.1					4.6	4.6	3.6
Vehicle Extension (s)		4.1			3.5					4.0	4.0	4.0
Lane Grp Cap (vph)		1091			1094					925	1943	747
v/s Ratio Prot		c0.17			0.14					0.27	c0.31	
v/s Ratio Perm												c0.36
v/c Ratio		0.55			0.47					0.46	0.54	0.76
Uniform Delay, d1		21.5			20.9					9.3	9.8	16.3
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		2.0			1.4					0.5	0.4	4.7
Delay (s)		23.5			22.3					9.8	10.2	21.0
Level of Service		C			C					A	B	C
Approach Delay (s)		23.5			22.3			0.0			14.2	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	11.4
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



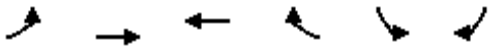
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱↱
Volume (vph)	0	420	780	0	0	930
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.1	4.1			4.6
Lane Util. Factor		0.95	0.95			0.88
Frt		1.00	1.00			0.85
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		3539	3539			2787
Flt Permitted		1.00	1.00			1.00
Satd. Flow (perm)		3539	3539			2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	457	848	0	0	1011
RTOR Reduction (vph)	0	0	0	0	0	34
Lane Group Flow (vph)	0	457	848	0	0	977
Turn Type		NA	NA			Prot
Protected Phases		2 8	6			4
Permitted Phases						
Actuated Green, G (s)		59.8	29.0			37.3
Effective Green, g (s)		59.8	29.0			37.3
Actuated g/C Ratio		0.80	0.39			0.50
Clearance Time (s)			4.1			4.6
Vehicle Extension (s)			3.0			4.0
Lane Grp Cap (vph)		2821	1368			1386
v/s Ratio Prot		0.13	c0.24			c0.35
v/s Ratio Perm						
v/c Ratio		0.16	0.62			0.70
Uniform Delay, d1		1.8	18.6			14.6
Progression Factor		0.37	1.00			0.35
Incremental Delay, d2		0.0	2.1			1.5
Delay (s)		0.7	20.7			6.6
Level of Service		A	C			A
Approach Delay (s)		0.7	20.7		6.6	
Approach LOS		A	C		A	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.3
Intersection Capacity Utilization	61.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



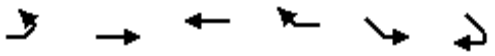
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	140	280	0	540	240	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.1	4.0		4.1	4.1	4.1
Lane Util. Factor	0.91	0.91		0.95	1.00	1.00
Frt	0.93	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3136	1441		3539	1770	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3136	1441		3539	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	304	0	587	261	315
RTOR Reduction (vph)	76	0	0	0	0	199
Lane Group Flow (vph)	228	152	0	587	261	116
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	8			8	6	
Permitted Phases		Free				6
Actuated Green, G (s)	31.8	63.3		31.8	23.3	23.3
Effective Green, g (s)	31.8	63.3		31.8	23.3	23.3
Actuated g/C Ratio	0.50	1.00		0.50	0.37	0.37
Clearance Time (s)	4.1			4.1	4.1	4.1
Vehicle Extension (s)	2.0			2.0	3.0	3.0
Lane Grp Cap (vph)	1575	1441		1777	651	582
v/s Ratio Prot	0.07			c0.17	c0.15	
v/s Ratio Perm		0.11				0.07
v/c Ratio	0.14	0.11		0.33	0.40	0.20
Uniform Delay, d1	8.5	0.0		9.4	14.8	13.6
Progression Factor	1.00	1.00		0.63	1.00	1.00
Incremental Delay, d2	0.0	0.1		0.0	0.4	0.2
Delay (s)	8.5	0.1		5.9	15.2	13.8
Level of Service	A	A		A	B	B
Approach Delay (s)	5.7			5.9	14.5	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	63.3	Sum of lost time (s)	11.9
Intersection Capacity Utilization	35.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



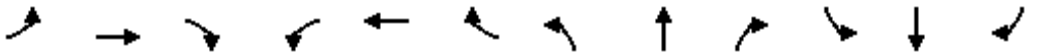
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	420	560	470	540	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.1	4.0	4.1	4.0		
Lane Util. Factor	1.00	0.95	0.95	1.00		
Frt	1.00	1.00	1.00	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	1770	3539	3539	1583		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	1770	3539	3539	1583		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	457	609	511	587	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	457	609	511	587	0	0
Turn Type	Prot	NA	NA	Free		
Protected Phases	2 3	Free	4			
Permitted Phases				Free		
Actuated Green, G (s)	32.4	63.3	23.1	63.3		
Effective Green, g (s)	32.4	63.3	23.1	63.3		
Actuated g/C Ratio	0.51	1.00	0.36	1.00		
Clearance Time (s)			4.1			
Vehicle Extension (s)			4.1			
Lane Grp Cap (vph)	905	3539	1291	1583		
v/s Ratio Prot	c0.26	0.17	0.14			
v/s Ratio Perm				c0.37		
v/c Ratio	0.50	0.17	0.40	0.37		
Uniform Delay, d1	10.2	0.0	14.9	0.0		
Progression Factor	1.00	1.00	0.82	1.00		
Incremental Delay, d2	0.2	0.1	0.2	0.5		
Delay (s)	10.3	0.1	12.4	0.5		
Level of Service	B	A	B	A		
Approach Delay (s)		4.5	6.1		0.0	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	5.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	63.3	Sum of lost time (s)	11.9
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



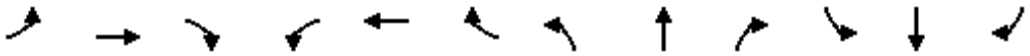
Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (vph)	0	430	540	1010	560	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.1	4.1	4.0	4.1	
Lane Util. Factor		0.95	0.91	0.91	0.97	
Frt		1.00	0.93	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3539	3144	1441	3433	
Flt Permitted		1.00	1.00	1.00	0.95	
Satd. Flow (perm)		3539	3144	1441	3433	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	467	587	1098	609	0
RTOR Reduction (vph)	0	0	261	0	0	0
Lane Group Flow (vph)	0	467	875	549	609	0
Turn Type		NA	NA	Free	Prot	
Protected Phases		4	4		2	
Permitted Phases				Free		
Actuated Green, G (s)		23.1	23.1	63.3	23.3	
Effective Green, g (s)		23.1	23.1	63.3	23.3	
Actuated g/C Ratio		0.36	0.36	1.00	0.37	
Clearance Time (s)		4.1	4.1		4.1	
Vehicle Extension (s)		4.1	4.1		2.0	
Lane Grp Cap (vph)		1291	1147	1441	1263	
v/s Ratio Prot		0.13	c0.28		c0.18	
v/s Ratio Perm				c0.38		
v/c Ratio		0.36	0.76	0.38	0.48	
Uniform Delay, d1		14.7	17.7	0.0	15.4	
Progression Factor		1.01	1.00	1.00	1.00	
Incremental Delay, d2		0.2	3.3	0.8	0.1	
Delay (s)		15.0	21.0	0.8	15.5	
Level of Service		B	C	A	B	
Approach Delay (s)		15.0	14.4		15.5	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	63.3	Sum of lost time (s)	11.9
Intersection Capacity Utilization	48.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	170	600	90	230	710	100	400	330	40	200	880	370
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6	4.6	4.0	4.9		4.0	4.6	4.6	4.0	4.9	4.9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3474		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3474		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	183	645	97	250	772	109	435	359	43	217	957	402
RTOR Reduction (vph)	0	0	68	0	11	0	0	0	28	0	0	142
Lane Group Flow (vph)	183	645	29	250	870	0	435	359	15	217	957	260
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8						6			2
Actuated Green, G (s)	9.6	30.0	30.0	9.0	29.1		15.2	35.0	35.0	10.8	30.3	30.3
Effective Green, g (s)	9.6	30.0	30.0	9.0	29.1		15.2	35.0	35.0	10.8	30.3	30.3
Actuated g/C Ratio	0.09	0.29	0.29	0.09	0.29		0.15	0.34	0.34	0.11	0.30	0.30
Clearance Time (s)	4.0	4.6	4.6	4.0	4.9		4.0	4.6	4.6	4.0	4.9	4.9
Vehicle Extension (s)	2.0	5.0	5.0	2.0	5.2		2.0	5.0	5.0	2.0	5.2	5.2
Lane Grp Cap (vph)	323	1040	465	302	991		511	1214	543	363	1051	470
v/s Ratio Prot	0.05	0.18		c0.07	c0.25		c0.13	0.10		0.06	c0.27	
v/s Ratio Perm			0.02						0.01			0.16
v/c Ratio	0.57	0.62	0.06	0.83	0.88		0.85	0.30	0.03	0.60	0.91	0.55
Uniform Delay, d1	44.2	31.1	25.9	45.7	34.8		42.3	24.5	22.2	43.5	34.5	30.2
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	1.6	0.1	16.0	9.7		12.4	0.3	0.0	1.8	12.3	2.5
Delay (s)	45.6	32.7	26.0	61.8	44.5		54.7	24.8	22.3	45.3	46.8	32.7
Level of Service	D	C	C	E	D		D	C	C	D	D	C
Approach Delay (s)		34.6			48.3			40.2			43.0	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	42.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	102.0	Sum of lost time (s)	17.8
Intersection Capacity Utilization	78.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

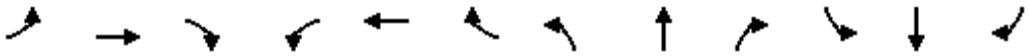


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	30	0	300	0	350	80	90	240	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0		4.0		4.2	4.2	4.0	4.2	
Lane Util. Factor				1.00		1.00		1.00	1.00	1.00	1.00	
Frt				1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected				0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1770		1583		1863	1583	1770	1863	
Flt Permitted				0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1770		1583		1863	1583	1770	1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	33	0	326	0	380	87	98	261	0
RTOR Reduction (vph)	0	0	0	0	0	196	0	0	60	0	0	0
Lane Group Flow (vph)	0	0	0	33	0	130	0	380	27	98	261	0
Turn Type				Perm		Perm		NA	Perm	Prot	NA	
Protected Phases								6		5	2	
Permitted Phases				8		8			6			
Actuated Green, G (s)				26.0		26.0		19.9	19.9	6.9	30.8	
Effective Green, g (s)				26.0		26.0		19.9	19.9	6.9	30.8	
Actuated g/C Ratio				0.40		0.40		0.31	0.31	0.11	0.47	
Clearance Time (s)				4.0		4.0		4.2	4.2	4.0	4.2	
Vehicle Extension (s)				3.0		3.0		4.8	4.8	3.0	4.8	
Lane Grp Cap (vph)				708		633		570	484	187	882	
v/s Ratio Prot								c0.20		c0.06	0.14	
v/s Ratio Perm				0.02		c0.08			0.02			
v/c Ratio				0.05		0.21		0.67	0.06	0.52	0.30	
Uniform Delay, d1				11.9		12.8		19.7	15.9	27.5	10.5	
Progression Factor				0.98		1.08		1.00	1.00	1.00	1.00	
Incremental Delay, d2				0.1		0.7		3.7	0.1	2.6	0.4	
Delay (s)				11.8		14.5		23.4	16.0	30.1	10.8	
Level of Service				B		B		C	B	C	B	
Approach Delay (s)		0.0			14.2			22.0			16.1	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	12.2
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	70	160	10	160	50	90	460	100	10	120	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.90		1.00	0.96		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1668		1770	1797		1770	1813		1770	1863	1583
Flt Permitted	0.56	1.00		0.53	1.00		0.67	1.00		0.28	1.00	1.00
Satd. Flow (perm)	1051	1668		996	1797		1255	1813		527	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	76	174	11	174	54	98	500	109	11	130	22
RTOR Reduction (vph)	0	113	0	0	17	0	0	12	0	0	0	11
Lane Group Flow (vph)	33	137	0	11	211	0	98	597	0	11	130	11
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	22.8	22.8		22.8	22.8		33.8	33.8		33.8	33.8	33.8
Effective Green, g (s)	22.8	22.8		22.8	22.8		33.8	33.8		33.8	33.8	33.8
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.52	0.52		0.52	0.52	0.52
Clearance Time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Vehicle Extension (s)	0.2	0.2		0.2	0.2		0.2	0.2		0.2	0.2	0.2
Lane Grp Cap (vph)	368	585		349	630		652	942		274	968	823
v/s Ratio Prot		0.08			c0.12			c0.33			0.07	
v/s Ratio Perm	0.03			0.01			0.08			0.02		0.01
v/c Ratio	0.09	0.23		0.03	0.34		0.15	0.63		0.04	0.13	0.01
Uniform Delay, d1	14.1	14.9		13.9	15.5		8.1	11.2		7.6	8.1	7.5
Progression Factor	0.84	1.31		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.4	0.8		0.2	1.4		0.5	3.2		0.3	0.3	0.0
Delay (s)	12.3	20.3		14.0	17.0		8.6	14.4		7.9	8.3	7.6
Level of Service	B	C		B	B		A	B		A	A	A
Approach Delay (s)		19.4			16.8			13.6			8.2	
Approach LOS		B			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	72.2%	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)	150	1240	20	40	760	150	10	30	60	120	180	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8		4.8	4.8		4.8	4.8	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.98		1.00	0.90		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	3526		1770	3369		1687	1672		1770	1710	
Flt Permitted	0.23	1.00		0.13	1.00		0.36	1.00		0.69	1.00	
Satd. Flow (perm)	416	3526		239	3369		646	1672		1292	1710	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	1348	22	43	826	163	11	33	65	130	196	185
RTOR Reduction (vph)	0	2	0	0	27	0	0	22	0	0	56	0
Lane Group Flow (vph)	163	1368	0	43	962	0	11	76	0	130	325	0
Heavy Vehicles (%)	3%	2%	10%	2%	5%	2%	7%	3%	2%	2%	4%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	31.2	31.2		31.2	31.2		19.2	19.2		19.2	19.2	
Effective Green, g (s)	31.2	31.2		31.2	31.2		19.2	19.2		19.2	19.2	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.32	0.32		0.32	0.32	
Clearance Time (s)	4.8	4.8		4.8	4.8		4.8	4.8		4.8	4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	216	1833		124	1751		206	535		413	547	
v/s Ratio Prot		0.39			0.29			0.05			c0.19	
v/s Ratio Perm	c0.39			0.18			0.02			0.10		
v/c Ratio	0.75	0.75		0.35	0.55		0.05	0.14		0.31	0.59	
Uniform Delay, d1	11.4	11.3		8.4	9.7		14.1	14.5		15.4	17.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	13.9	1.7		1.7	0.4		0.5	0.6		2.0	4.7	
Delay (s)	25.3	13.0		10.1	10.0		14.6	15.1		17.4	21.8	
Level of Service	C	B		B	B		B	B		B	C	
Approach Delay (s)		14.3			10.0			15.0			20.7	
Approach LOS		B			B			B			C	

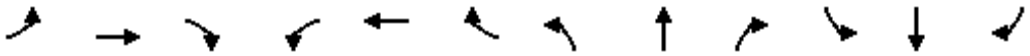
Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1180	240	170	600	0	0	0	0	300	0	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		5.2	5.2					4.2	4.2	
Lane Util. Factor		0.95		1.00	0.95					1.00	1.00	
Frt		0.97		1.00	1.00					1.00	0.85	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3449		1770	3438					1770	1583	
Flt Permitted		1.00		0.11	1.00					0.95	1.00	
Satd. Flow (perm)		3449		206	3438					1770	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1283	261	185	652	0	0	0	0	326	0	380
RTOR Reduction (vph)	0	26	0	0	0	0	0	0	0	0	230	0
Lane Group Flow (vph)	0	1518	0	185	652	0	0	0	0	326	150	0
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Perm	NA					Split	NA	
Protected Phases		2			2					4	4	
Permitted Phases				2								
Actuated Green, G (s)		41.8		41.8	41.8					13.8	13.8	
Effective Green, g (s)		41.8		41.8	41.8					13.8	13.8	
Actuated g/C Ratio		0.64		0.64	0.64					0.21	0.21	
Clearance Time (s)		5.2		5.2	5.2					4.2	4.2	
Vehicle Extension (s)		0.2		0.2	0.2					5.2	5.2	
Lane Grp Cap (vph)		2217		132	2210					375	336	
v/s Ratio Prot		0.44			0.19					c0.18	0.09	
v/s Ratio Perm				c0.90								
v/c Ratio		0.68		1.40	0.30					0.87	0.45	
Uniform Delay, d1		7.4		11.6	5.1					24.7	22.3	
Progression Factor		1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2		0.7		219.8	0.0					20.4	2.1	
Delay (s)		8.1		231.4	5.1					45.1	24.4	
Level of Service		A		F	A					D	C	
Approach Delay (s)		8.1			55.1			0.0			34.0	
Approach LOS		A			E			A			C	

Intersection Summary			
HCM 2000 Control Delay	26.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	9.4
Intersection Capacity Utilization	93.3%	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)	530	950	0	0	730	110	40	10	160	0	0	0
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			
Lane Util. Factor	1.00	0.95			0.95			1.00	1.00			
Frt	1.00	1.00			0.98			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.96	1.00			
Satd. Flow (prot)	1770	3539			3383			1791	1583			
Flt Permitted	0.30	1.00			1.00			0.96	1.00			
Satd. Flow (perm)	563	3539			3383			1791	1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	576	1033	0	0	793	120	43	11	174	0	0	0
RTOR Reduction (vph)	0	0	0	0	10	0	0	0	154	0	0	0
Lane Group Flow (vph)	576	1033	0	0	903	0	0	54	20	0	0	0
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Actuated Green, G (s)	66.1	66.1			66.1			8.9	8.9			
Effective Green, g (s)	66.1	66.1			66.1			8.9	8.9			
Actuated g/C Ratio	0.80	0.80			0.80			0.11	0.11			
Clearance Time (s)	4.0	4.0			4.0			4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			
Lane Grp Cap (vph)	448	2818			2694			192	169			
v/s Ratio Prot		0.29			0.27							
v/s Ratio Perm	c1.02							0.03	0.01			
v/c Ratio	1.29	0.37			0.34			0.28	0.12			
Uniform Delay, d1	8.5	2.4			2.3			34.1	33.5			
Progression Factor	1.00	1.00			1.00			1.00	1.00			
Incremental Delay, d2	144.6	0.1			0.1			0.8	0.3			
Delay (s)	153.1	2.5			2.4			34.9	33.8			
Level of Service	F	A			A			C	C			
Approach Delay (s)		56.4			2.4			34.1			0.0	
Approach LOS		E			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	36.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	83.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.3%	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 (veh/h)	190	870	50	10	740	60	30	40	220	30	10	70
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Hourly flow rate (vph)	207	946	54	11	804	65	32	43	237	33	11	76
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		270										
pX, platoon unblocked				0.91			0.91	0.91	0.91	0.91	0.91	
vC, conflicting volume	870			1000			1891	2277	500	2003	2272	435
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	870			812			1787	2209	265	1909	2203	435
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	73			99			0	0	65	0	63	87
cM capacity (veh/h)	771			741			23	29	670	0	29	569

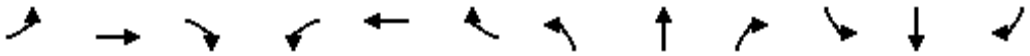
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	679	527	413	467	312	120
Volume Left	207	0	11	0	32	33
Volume Right	0	54	0	65	237	76
cSH	771	1700	741	1700	96	0
Volume to Capacity	0.27	0.31	0.01	0.27	3.25	Err
Queue Length 95th (ft)	27	0	1	0	Err	Err
Control Delay (s)	6.4	0.0	0.4	0.0	Err	Err
Lane LOS	A		A		F	F
Approach Delay (s)	3.6		0.2		Err	Err
Approach LOS					F	F

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	420	790	30	10	810	110	20	10	10	110	30	110
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	457	859	33	11	880	120	22	11	11	120	33	120
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					400							
pX, platoon unblocked	0.90						0.90	0.90		0.90	0.90	0.90
vC, conflicting volume	1000			891			2386	2810	446	2321	2766	500
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	786			891			2320	2789	446	2248	2741	233
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	39			99			0	0	98	0	0	83
cM capacity (veh/h)	749			756			0	6	560	0	7	695

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	457	572	319	11	587	413	43	272
Volume Left	457	0	0	11	0	0	22	120
Volume Right	0	0	33	0	0	120	11	120
cSH	749	1700	1700	756	1700	1700	0	0
Volume to Capacity	0.61	0.34	0.19	0.01	0.35	0.24	Err	Err
Queue Length 95th (ft)	105	0	0	1	0	0	Err	Err
Control Delay (s)	17.0	0.0	0.0	9.8	0.0	0.0	Err	Err
Lane LOS	C			A			F	F
Approach Delay (s)	5.8			0.1			Err	Err
Approach LOS							F	F

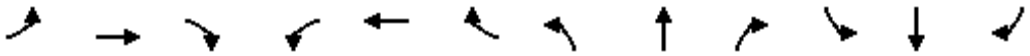
Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	700	150	40	440	120	360	110	10	20	90	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		5.6	5.6		5.6	5.6	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	0.97		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3446		1770	3426		1770	1839		1770	1835	
Flt Permitted	0.95	1.00		0.95	1.00		0.69	1.00		0.67	1.00	
Satd. Flow (perm)	1770	3446		1770	3426		1279	1839		1254	1835	
Peak-hour factor, PHF	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	761	163	42	463	126	391	120	11	22	98	11
RTOR Reduction (vph)	0	20	0	0	27	0	0	4	0	0	4	0
Lane Group Flow (vph)	11	904	0	42	562	0	391	127	0	22	105	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	8.0	33.8		8.0	33.8		34.4	34.4		34.4	34.4	
Effective Green, g (s)	8.0	33.8		8.0	33.8		34.4	34.4		34.4	34.4	
Actuated g/C Ratio	0.09	0.38		0.09	0.38		0.38	0.38		0.38	0.38	
Clearance Time (s)	4.0	4.2		4.0	4.2		5.6	5.6		5.6	5.6	
Lane Grp Cap (vph)	157	1294		157	1286		488	702		479	701	
v/s Ratio Prot	0.01	c0.26		0.02	c0.16			0.07			0.06	
v/s Ratio Perm							c0.31			0.02		
v/c Ratio	0.07	0.70		0.27	0.44		0.80	0.18		0.05	0.15	
Uniform Delay, d1	37.6	23.8		38.3	21.0		24.8	18.5		17.5	18.2	
Progression Factor	1.00	1.00		1.14	1.07		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.9	3.2		2.5	0.7		13.0	0.6		0.2	0.5	
Delay (s)	38.5	26.9		46.3	23.2		37.7	19.0		17.7	18.7	
Level of Service	D	C		D	C		D	B		B	B	
Approach Delay (s)		27.1			24.7			33.0			18.5	
Approach LOS		C			C			C			B	

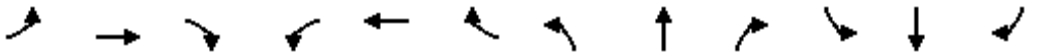
Intersection Summary			
HCM 2000 Control Delay	27.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.8
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



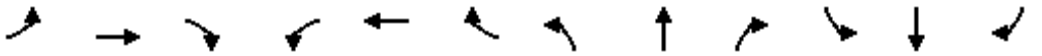
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	460	120	50	480	80	490	700	160	80	190	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.2	4.2	4.2	4.2	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.97		1.00	0.98		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3430		1770	3463		1770	1863	1583	1770	1815	
Flt Permitted	0.95	1.00		0.95	1.00		0.56	1.00	1.00	0.13	1.00	
Satd. Flow (perm)	1770	3430		1770	3463		1048	1863	1583	249	1815	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	500	130	54	522	87	533	761	174	87	207	43
RTOR Reduction (vph)	0	26	0	0	15	0	0	0	32	0	8	0
Lane Group Flow (vph)	65	604	0	54	594	0	533	761	142	87	242	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	6.4	28.0		4.8	26.4		44.8	44.8	44.8	44.8	44.8	
Effective Green, g (s)	6.4	28.0		4.8	26.4		44.8	44.8	44.8	44.8	44.8	
Actuated g/C Ratio	0.07	0.31		0.05	0.29		0.50	0.50	0.50	0.50	0.50	
Clearance Time (s)	4.0	4.2		4.0	4.2		4.2	4.2	4.2	4.2	4.2	
Vehicle Extension (s)	2.0	4.8		2.0	4.8		4.8	4.8	4.8	4.8	4.8	
Lane Grp Cap (vph)	125	1067		94	1015		521	927	787	123	903	
v/s Ratio Prot	c0.04	c0.18		0.03	0.17			0.41			0.13	
v/s Ratio Perm							c0.51		0.09	0.35		
v/c Ratio	0.52	0.57		0.57	0.59		1.02	0.82	0.18	0.71	0.27	
Uniform Delay, d1	40.3	25.9		41.6	27.1		22.6	19.2	12.5	17.5	13.1	
Progression Factor	0.64	0.13		0.48	0.56		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.3	1.6		5.0	2.4		45.4	6.6	0.2	20.1	0.3	
Delay (s)	27.2	5.0		25.1	17.5		68.0	25.7	12.7	37.6	13.4	
Level of Service	C	A		C	B		E	C	B	D	B	
Approach Delay (s)		7.1			18.1			39.5			19.7	
Approach LOS		A			B			D			B	

Intersection Summary			
HCM 2000 Control Delay	25.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	78.9%	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)	10	470	60	20	530	130	60	290	40	40	330	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.0	4.0			4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frt	1.00	0.98		1.00	0.97		1.00	0.98			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)	1770	3479		1770	3435		1770	1829			1853	1583
Flt Permitted	0.34	1.00		0.41	1.00		0.25	1.00			0.75	1.00
Satd. Flow (perm)	641	3479		768	3435		463	1829			1401	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	511	65	22	576	141	65	315	43	43	359	22
RTOR Reduction (vph)	0	10	0	0	23	0	0	6	0	0	0	11
Lane Group Flow (vph)	11	566	0	22	694	0	65	352	0	0	402	11
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	55.1	55.1		55.1	55.1		26.7	26.7			26.5	26.5
Effective Green, g (s)	55.1	55.1		55.1	55.1		26.7	26.7			26.5	26.5
Actuated g/C Ratio	0.61	0.61		0.61	0.61		0.30	0.30			0.29	0.29
Clearance Time (s)	4.2	4.2		4.2	4.2		4.0	4.0			4.2	4.2
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0			2.0	2.0
Lane Grp Cap (vph)	392	2129		470	2102		137	542			412	466
v/s Ratio Prot		0.16			c0.20			0.19				
v/s Ratio Perm	0.02			0.03			0.14				c0.29	0.01
v/c Ratio	0.03	0.27		0.05	0.33		0.47	0.65			0.98	0.02
Uniform Delay, d1	6.9	8.1		7.0	8.5		25.9	27.6			31.4	22.6
Progression Factor	0.49	0.46		1.43	1.92		1.00	1.00			1.14	1.34
Incremental Delay, d2	0.1	0.3		0.2	0.4		2.6	2.8			34.9	0.0
Delay (s)	3.5	4.0		10.2	16.7		28.5	30.4			70.9	30.2
Level of Service	A	A		B	B		C	C			E	C
Approach Delay (s)		4.0			16.5			30.1			68.8	
Approach LOS		A			B			C			E	

Intersection Summary			
HCM 2000 Control Delay	25.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	68.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

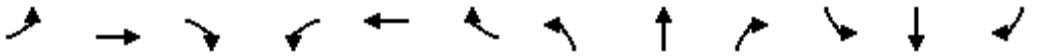


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	440	10	10	630	100	90	360	10	30	20	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2	4.2	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	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	3539	1583	1770	3539	1583	1681	1767	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.74	1.00	1.00	0.25	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1315	1762	1583	473	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	478	11	11	685	109	98	391	11	33	22	22
RTOR Reduction (vph)	0	0	5	0	0	62	0	0	7	0	0	15
Lane Group Flow (vph)	109	478	6	11	685	47	88	401	4	33	22	7
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	3	8		7	4			6			2	
Permitted Phases			8			4	6		6	2		2
Actuated Green, G (s)	10.2	47.7	47.7	1.2	38.7	38.7	28.7	28.7	28.7	28.7	28.7	28.7
Effective Green, g (s)	10.2	47.7	47.7	1.2	38.7	38.7	28.7	28.7	28.7	28.7	28.7	28.7
Actuated g/C Ratio	0.11	0.53	0.53	0.01	0.43	0.43	0.32	0.32	0.32	0.32	0.32	0.32
Clearance Time (s)	4.0	4.2	4.2	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Vehicle Extension (s)	2.0	4.9	4.9	2.0	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Lane Grp Cap (vph)	200	1875	838	23	1521	680	419	561	504	150	594	504
v/s Ratio Prot	c0.06	0.14		0.01	c0.19						0.01	
v/s Ratio Perm			0.00			0.03	0.07	c0.23	0.00	0.07		0.00
v/c Ratio	0.55	0.25	0.01	0.48	0.45	0.07	0.21	0.71	0.01	0.22	0.04	0.01
Uniform Delay, d1	37.7	11.5	10.0	44.1	18.1	15.1	22.4	27.0	20.9	22.5	21.1	21.0
Progression Factor	1.17	0.60	1.00	0.85	0.84	0.65	0.92	0.93	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	0.3	0.0	5.3	0.9	0.2	0.5	4.9	0.0	1.5	0.1	0.0
Delay (s)	45.7	7.3	10.0	43.0	16.1	10.0	21.1	30.0	20.9	23.9	21.2	21.0
Level of Service	D	A	A	D	B	B	C	C	C	C	C	C
Approach Delay (s)		14.3			15.6			28.3			22.3	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

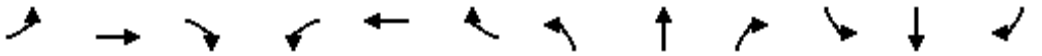
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	430	0	0	690	130	40	140	130	10	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.2		4.2	4.2	4.2		4.0	
Lane Util. Factor	1.00	0.95			0.95		1.00	1.00	1.00		1.00	
Frt	1.00	1.00			0.98		1.00	1.00	0.85		0.93	
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.98	
Satd. Flow (prot)	1770	3539			3455		1770	1863	1583		1695	
Flt Permitted	0.29	1.00			1.00		0.74	1.00	1.00		0.88	
Satd. Flow (perm)	534	3539			3455		1384	1863	1583		1530	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	467	0	0	750	141	43	152	141	11	0	11
RTOR Reduction (vph)	0	0	0	0	13	0	0	0	108	0	11	0
Lane Group Flow (vph)	54	467	0	0	878	0	43	152	33	0	11	0
Turn Type	Perm	NA			NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8		8	4		
Actuated Green, G (s)	60.6	60.6			60.6		21.0	21.0	21.0		21.2	
Effective Green, g (s)	60.6	60.6			60.6		21.0	21.0	21.0		21.2	
Actuated g/C Ratio	0.67	0.67			0.67		0.23	0.23	0.23		0.24	
Clearance Time (s)	4.2	4.2			4.2		4.2	4.2	4.2		4.0	
Vehicle Extension (s)	2.0	2.0			2.0		2.0	2.0	2.0		3.0	
Lane Grp Cap (vph)	359	2382			2326		322	434	369		360	
v/s Ratio Prot		0.13			c0.25			c0.08				
v/s Ratio Perm	0.10						0.03		0.02		0.01	
v/c Ratio	0.15	0.20			0.38		0.13	0.35	0.09		0.03	
Uniform Delay, d1	5.3	5.5			6.4		27.3	28.8	27.0		26.5	
Progression Factor	1.02	1.12			1.00		1.00	1.00	1.00		1.04	
Incremental Delay, d2	0.9	0.2			0.5		0.1	0.2	0.0		0.0	
Delay (s)	6.3	6.4			6.9		27.4	29.0	27.1		27.7	
Level of Service	A	A			A		C	C	C		C	
Approach Delay (s)		6.4			6.9			28.0			27.7	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



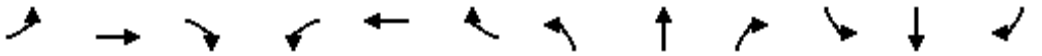
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	340	10	20	640	210	10	150	10	140	250	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6	4.6	4.6	4.6		4.6	4.6	4.6
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3524		1770	3539	1583	1770	3506		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.34	1.00		0.64	1.00	1.00
Satd. Flow (perm)	1770	3524		1770	3539	1583	626	3506		1196	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	370	11	22	696	228	11	163	11	152	272	370
RTOR Reduction (vph)	0	2	0	0	0	130	0	7	0	0	0	284
Lane Group Flow (vph)	120	379	0	22	696	98	11	167	0	152	272	86
Turn Type	Prot	NA		Prot	NA	custom	Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases						8	8			4		4
Actuated Green, G (s)	13.4	55.4		2.7	44.7	18.7	18.7	18.7		18.7	18.7	18.7
Effective Green, g (s)	13.4	55.4		2.7	44.7	18.7	18.7	18.7		18.7	18.7	18.7
Actuated g/C Ratio	0.15	0.62		0.03	0.50	0.21	0.21	0.21		0.21	0.21	0.21
Clearance Time (s)	4.0	4.6		4.0	4.6	4.6	4.6	4.6		4.6	4.6	4.6
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	263	2169		53	1757	328	130	728		248	387	328
v/s Ratio Prot	c0.07	0.11		0.01	c0.20			0.05			c0.15	
v/s Ratio Perm						0.06	0.02			0.13		0.05
v/c Ratio	0.46	0.17		0.42	0.40	0.30	0.08	0.23		0.61	0.70	0.26
Uniform Delay, d1	35.0	7.5		42.9	14.2	30.1	28.7	29.7		32.4	33.1	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	0.5	0.2		1.9	0.7	0.2	0.1	0.1		3.1	4.7	0.2
Delay (s)	35.4	7.6		44.8	14.9	30.3	28.9	29.7		35.5	37.7	30.0
Level of Service	D	A		D	B	C	C	C		D	D	C
Approach Delay (s)		14.3			19.3			29.7			33.7	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	23.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	10	220	120	610	10	210	0	0	30	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.2	4.6	4.6	4.6	4.2	4.6			4.6	4.6
Lane Util. Factor			1.00	1.00	1.00	0.88	1.00	1.00			1.00	1.00
Frt			0.86	1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00	0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1611	1770	1863	2787	1770	1863			1863	1583
Flt Permitted			1.00	0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1611	1770	1863	2787	1770	1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	11	239	130	663	11	228	0	0	33	22
RTOR Reduction (vph)	0	0	8	0	0	471	0	0	0	0	0	10
Lane Group Flow (vph)	0	0	3	239	130	192	11	228	0	0	33	12
Turn Type			pm+ov	Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1		4		1	6			2	
Permitted Phases			8	4		4						2
Actuated Green, G (s)			28.6	26.1	26.1	26.1	2.5	54.7			48.0	48.0
Effective Green, g (s)			28.6	26.1	26.1	26.1	2.5	54.7			48.0	48.0
Actuated g/C Ratio			0.32	0.29	0.29	0.29	0.03	0.61			0.53	0.53
Clearance Time (s)			4.2	4.6	4.6	4.6	4.2	4.6			4.6	4.6
Vehicle Extension (s)			2.0	5.3	5.3	5.3	2.0	5.1			5.2	5.2
Lane Grp Cap (vph)			511	513	540	808	49	1132			993	844
v/s Ratio Prot			0.00		0.07		0.01	c0.12			0.02	
v/s Ratio Perm			0.00	c0.14		0.07						0.01
v/c Ratio			0.01	0.47	0.24	0.24	0.22	0.20			0.03	0.01
Uniform Delay, d1			21.0	26.2	24.4	24.4	42.8	7.9			10.0	9.9
Progression Factor			1.00	1.00	1.00	1.00	1.00	1.00			0.72	1.00
Incremental Delay, d2			0.0	1.5	0.5	0.4	0.8	0.4			0.1	0.0
Delay (s)			21.0	27.8	24.9	24.7	43.7	8.3			7.3	9.9
Level of Service			C	C	C	C	D	A			A	A
Approach Delay (s)		21.0			25.5			9.9			8.3	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	21.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	40.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



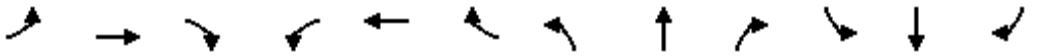
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	240	290	20	0	0	0	0	230	210	110	100	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		0.99						0.94		1.00	1.00	
Flt Protected		0.98						1.00		0.95	1.00	
Satd. Flow (prot)		3445						1743		1770	1863	
Flt Permitted		0.98						1.00		0.36	1.00	
Satd. Flow (perm)		3445						1743		675	1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	315	22	0	0	0	0	250	228	120	109	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	86	0	0	0	0
Lane Group Flow (vph)	0	591	0	0	0	0	0	392	0	120	109	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		11.5						11.7		11.7	11.7	
Effective Green, g (s)		11.5						11.7		11.7	11.7	
Actuated g/C Ratio		0.37						0.37		0.37	0.37	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		1269						653		253	698	
v/s Ratio Prot								c0.23			0.06	
v/s Ratio Perm		0.17								0.18		
v/c Ratio		0.47						0.60		0.47	0.16	
Uniform Delay, d1		7.5						7.9		7.4	6.5	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.3						1.6		1.4	0.1	
Delay (s)		7.8						9.4		8.8	6.6	
Level of Service		A						A		A	A	
Approach Delay (s)		7.8			0.0			9.4			7.8	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	31.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	180	340	690	20	770	0	0	350	10
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	
Lane Util. Factor					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			1.00	
Flt Protected					0.98	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1831	1583	1770	1863			1856	
Flt Permitted					0.98	1.00	0.53	1.00			1.00	
Satd. Flow (perm)					1831	1583	989	1863			1856	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	196	370	750	22	837	0	0	380	11
RTOR Reduction (vph)	0	0	0	0	0	373	0	0	0	0	2	0
Lane Group Flow (vph)	0	0	0	0	566	377	22	837	0	0	389	0
Turn Type				custom	NA	custom	Perm	NA			NA	
Protected Phases					6!			8!			6!	
Permitted Phases				8!		8	8!					
Actuated Green, G (s)					20.8	29.1	29.1	29.1			20.8	
Effective Green, g (s)					20.8	29.1	29.1	29.1			20.8	
Actuated g/C Ratio					0.36	0.50	0.50	0.50			0.36	
Clearance Time (s)					4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)					3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)					657	795	497	936			666	
v/s Ratio Prot								c0.45			0.21	
v/s Ratio Perm					0.31	0.24	0.02					
v/c Ratio					0.86	0.47	0.04	0.89			0.58	
Uniform Delay, d1					17.2	9.4	7.3	13.0			15.0	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					11.2	0.4	0.0	10.9			1.3	
Delay (s)					28.4	9.9	7.4	23.9			16.4	
Level of Service					C	A	A	C			B	
Approach Delay (s)		0.0			17.8			23.5			16.4	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	19.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	57.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	108.0%	ICU Level of Service	G
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group



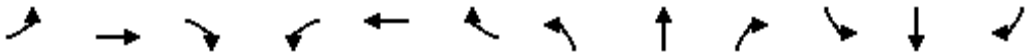
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	470	340	100	0	0	0	0	320	50	160	370	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		0.98						0.98		1.00	1.00	
Flt Protected		0.97						1.00		0.95	1.00	
Satd. Flow (prot)		3393						1829		1770	1863	
Flt Permitted		0.97						1.00		0.42	1.00	
Satd. Flow (perm)		3393						1829		789	1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	511	370	109	0	0	0	0	348	54	174	402	0
RTOR Reduction (vph)	0	24	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	966	0	0	0	0	0	387	0	174	402	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		14.4						12.6		12.6	12.6	
Effective Green, g (s)		14.4						12.6		12.6	12.6	
Actuated g/C Ratio		0.41						0.36		0.36	0.36	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		1395						658		284	670	
v/s Ratio Prot								0.21			0.22	
v/s Ratio Perm		0.28								c0.22		
v/c Ratio		0.69						0.59		0.61	0.60	
Uniform Delay, d1		8.5						9.1		9.2	9.1	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		1.5						1.4		3.9	1.5	
Delay (s)		10.0						10.4		13.1	10.6	
Level of Service		A						B		B	B	
Approach Delay (s)		10.0			0.0			10.4			11.3	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	35.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	108.0%	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	140	110	170	290	10	110	80	50	0	360	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		5.4	5.4		5.4	5.4			5.4	
Lane Util. Factor		1.00		1.00	1.00		1.00	1.00			1.00	
Frt		0.93		1.00	0.99		1.00	0.94			0.97	
Flt Protected		1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1739		1770	1814		1770	1756			1784	
Flt Permitted		1.00		0.55	1.00		0.21	1.00			1.00	
Satd. Flow (perm)		1739		1022	1814		398	1756			1784	
Peak-hour factor, PHF	0.92	0.92	0.92	1.00	1.00	1.00	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	152	120	170	290	10	120	87	54	0	391	109
RTOR Reduction (vph)	0	22	0	0	1	0	0	28	0	0	12	0
Lane Group Flow (vph)	0	250	0	170	299	0	120	113	0	0	488	0
Heavy Vehicles (%)	2%	2%	2%	2%	4%	10%	2%	2%	2%	2%	3%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			2	
Permitted Phases	4			8			2			2		
Actuated Green, G (s)		55.4		54.0	54.0		35.2	35.2			35.2	
Effective Green, g (s)		55.4		54.0	54.0		35.2	35.2			35.2	
Actuated g/C Ratio		0.55		0.54	0.54		0.35	0.35			0.35	
Clearance Time (s)		4.0		5.4	5.4		5.4	5.4			5.4	
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		963		551	979		140	618			627	
v/s Ratio Prot		0.14			0.16			0.06			0.27	
v/s Ratio Perm				c0.17			c0.30					
v/c Ratio		0.26		0.31	0.31		0.86	0.18			0.78	
Uniform Delay, d1		11.6		12.7	12.7		30.1	22.4			28.9	
Progression Factor		1.02		0.44	0.42		1.00	1.00			1.00	
Incremental Delay, d2		0.5		0.7	0.4		37.2	0.1			6.0	
Delay (s)		12.4		6.3	5.8		67.2	22.6			35.0	
Level of Service		B		A	A		E	C			C	
Approach Delay (s)		12.4			6.0			43.1			35.0	
Approach LOS		B			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	87.5%	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)	60	200	30	50	270	20	60	210	30	150	380	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.2	4.2			4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.99			0.99		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00			0.99		0.95	1.00	
Satd. Flow (prot)	1770	1810		1770	1843			1819		1719	1785	
Flt Permitted	0.95	1.00		0.60	1.00			0.48		0.48	1.00	
Satd. Flow (perm)	1770	1810		1125	1843			875		869	1785	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.00	0.92	1.00
Adj. Flow (vph)	65	217	33	54	293	22	65	228	33	150	413	160
RTOR Reduction (vph)	0	7	0	0	3	0	0	5	0	0	18	0
Lane Group Flow (vph)	65	243	0	54	312	0	0	321	0	150	555	0
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	2%	2%	2%	5%	2%	2%
Turn Type	Prot	NA		Perm	NA		Perm	NA		D.Pm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases				8			2			2		
Actuated Green, G (s)	3.3	41.9		34.6	34.6			29.9		29.9	29.9	
Effective Green, g (s)	3.3	41.9		34.6	34.6			29.9		29.9	29.9	
Actuated g/C Ratio	0.04	0.52		0.43	0.43			0.37		0.37	0.37	
Clearance Time (s)	4.0	4.2		4.2	4.2			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	73	947		486	797			327		324	667	
v/s Ratio Prot	c0.04	0.13			c0.17						0.31	
v/s Ratio Perm				0.05				c0.37		0.17		
v/c Ratio	0.89	0.26		0.11	0.39			0.98		0.46	0.83	
Uniform Delay, d1	38.2	10.5		13.5	15.5			24.8		19.0	22.8	
Progression Factor	1.13	0.79		0.79	0.80			1.00		1.00	1.00	
Incremental Delay, d2	60.0	0.5		0.4	1.4			44.6		1.0	8.8	
Delay (s)	103.1	8.8		11.1	13.7			69.3		20.0	31.5	
Level of Service	F	A		B	B			E		C	C	
Approach Delay (s)		28.3			13.4			69.3			29.2	
Approach LOS		C			B			E			C	

Intersection Summary			
HCM 2000 Control Delay	33.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.2
Intersection Capacity Utilization	106.0%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

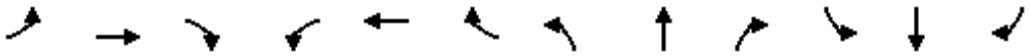
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	530	230	10	270	20	60	110	20	150	460	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.95		1.00	0.99		1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1778		1770	1843		1770	1819		1770	1817	
Flt Permitted	0.54	1.00		0.12	1.00		0.19	1.00		0.67	1.00	
Satd. Flow (perm)	1012	1778		229	1843		345	1819		1241	1817	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	576	250	11	293	22	65	120	22	163	500	98
RTOR Reduction (vph)	0	24	0	0	4	0	0	10	0	0	11	0
Lane Group Flow (vph)	11	802	0	11	311	0	65	132	0	163	587	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	32.6	32.6		32.6	32.6		21.6	21.6		21.6	21.6	
Effective Green, g (s)	32.6	32.6		32.6	32.6		21.6	21.6		21.6	21.6	
Actuated g/C Ratio	0.50	0.50		0.50	0.50		0.33	0.33		0.33	0.33	
Clearance Time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	507	891		114	924		114	604		412	603	
v/s Ratio Prot		c0.45			0.17			0.07			c0.32	
v/s Ratio Perm	0.01			0.05			0.19			0.13		
v/c Ratio	0.02	0.90		0.10	0.34		0.57	0.22		0.40	0.97	
Uniform Delay, d1	8.2	14.7		8.5	9.7		17.9	15.6		16.7	21.4	
Progression Factor	0.91	1.01		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	3.9		1.7	1.0		6.7	0.2		0.6	29.9	
Delay (s)	7.4	18.8		10.2	10.7		24.6	15.8		17.3	51.3	
Level of Service	A	B		B	B		C	B		B	D	
Approach Delay (s)		18.6			10.7			18.6			44.1	
Approach LOS		B			B			B			D	

Intersection Summary			
HCM 2000 Control Delay	26.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	100.6%	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)	60	110	10	10	60	70	10	350	20	130	10	60
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		4.2	4.0			4.2	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.99		1.00	0.92		1.00	0.99			0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.97	
Satd. Flow (prot)	1770	1823		1770	1707		1641	1849			1731	
Flt Permitted	0.67	1.00		0.67	1.00		0.64	1.00			0.37	
Satd. Flow (perm)	1248	1823		1254	1707		1107	1849			657	
Peak-hour factor, PHF	0.92	0.92	0.92	1.00	1.00	0.92	1.00	0.92	1.00	0.92	0.92	0.92
Adj. Flow (vph)	65	120	11	10	60	76	10	380	20	141	11	65
RTOR Reduction (vph)	0	5	0	0	34	0	0	3	0	0	24	0
Lane Group Flow (vph)	65	126	0	10	102	0	10	397	0	0	193	0
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	10%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		D.Pm	NA		Perm	NA	
Protected Phases		8			4			2			6	
Permitted Phases	8			4			6			6		
Actuated Green, G (s)	35.6	35.6		35.6	35.6		21.2	21.4			21.2	
Effective Green, g (s)	35.6	35.6		35.6	35.6		21.2	21.4			21.2	
Actuated g/C Ratio	0.55	0.55		0.55	0.55		0.33	0.33			0.33	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.2	4.0			4.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	683	998		686	934		361	608			214	
v/s Ratio Prot		c0.07			0.06			0.21				
v/s Ratio Perm	0.05			0.01			0.01				c0.29	
v/c Ratio	0.10	0.13		0.01	0.11		0.03	0.65			0.90	
Uniform Delay, d1	7.0	7.1		6.7	7.1		14.9	18.6			20.9	
Progression Factor	0.84	0.85		0.87	0.80		1.00	1.00			1.00	
Incremental Delay, d2	0.3	0.3		0.0	0.2		0.0	2.5			35.6	
Delay (s)	6.1	6.3		5.9	5.9		14.9	21.2			56.5	
Level of Service	A	A		A	A		B	C			E	
Approach Delay (s)		6.3			5.9			21.0			56.5	
Approach LOS		A			A			C			E	

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	95.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

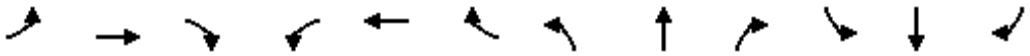


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	400	90	10	200	30	10	80	10	110	90	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.97		1.00	0.98			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.97	
Satd. Flow (prot)	1770	1811		1770	1826			1828			1803	
Flt Permitted	0.60	1.00		0.41	1.00			0.97			0.76	
Satd. Flow (perm)	1118	1811		757	1826			1776			1408	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	435	98	11	217	33	11	87	11	120	98	11
RTOR Reduction (vph)	0	8	0	0	5	0	0	5	0	0	2	0
Lane Group Flow (vph)	22	525	0	11	245	0	0	104	0	0	227	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	61.4	61.4		61.4	61.4			20.2			20.2	
Effective Green, g (s)	61.4	61.4		61.4	61.4			20.2			20.2	
Actuated g/C Ratio	0.68	0.68		0.68	0.68			0.22			0.22	
Clearance Time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	762	1235		516	1245			398			316	
v/s Ratio Prot		c0.29			0.13							
v/s Ratio Perm	0.02			0.01				0.06			c0.16	
v/c Ratio	0.03	0.43		0.02	0.20			0.26			0.72	
Uniform Delay, d1	4.6	6.4		4.6	5.2			28.8			32.3	
Progression Factor	1.00	1.00		0.77	0.90			1.00			1.09	
Incremental Delay, d2	0.1	1.1		0.1	0.3			0.4			5.8	
Delay (s)	4.7	7.5		3.6	5.0			29.1			40.9	
Level of Service	A	A		A	A			C			D	
Approach Delay (s)		7.4			5.0			29.1			40.9	
Approach LOS		A			A			C			D	

Intersection Summary			
HCM 2000 Control Delay	15.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	310	1020	270	200	620	20	110	160	80	10	210	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.95		1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3428		1770	3522		1770	1770		1770	1696	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3428		1770	3522		1770	1770		1770	1696	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	337	1109	293	217	674	22	120	174	87	11	228	337
RTOR Reduction (vph)	0	26	0	0	2	0	0	19	0	0	62	0
Lane Group Flow (vph)	337	1376	0	217	694	0	120	242	0	11	503	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	21.8	32.0		11.0	21.2		9.2	30.2		0.8	21.8	
Effective Green, g (s)	21.8	32.0		11.0	21.2		9.2	30.2		0.8	21.8	
Actuated g/C Ratio	0.24	0.36		0.12	0.24		0.10	0.34		0.01	0.24	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	428	1218		216	829		180	593		15	410	
v/s Ratio Prot	0.19	c0.40		c0.12	0.20		c0.07	0.14		0.01	c0.30	
v/s Ratio Perm												
v/c Ratio	0.79	1.13		1.00	0.84		0.67	0.41		0.73	1.23	
Uniform Delay, d1	31.9	29.0		39.5	32.8		38.9	23.0		44.5	34.1	
Progression Factor	0.81	0.80		0.77	0.88		0.90	0.84		1.00	1.00	
Incremental Delay, d2	6.9	66.5		48.3	4.5		8.4	1.9		103.2	121.8	
Delay (s)	32.6	89.8		78.5	33.4		43.4	21.4		147.7	155.9	
Level of Service	C	F		E	C		D	C		F	F	
Approach Delay (s)		78.7			44.1			28.3			155.8	
Approach LOS		E			D			C			F	

Intersection Summary			
HCM 2000 Control Delay	76.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	97.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

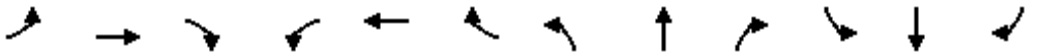


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	670	90	60	840	50	170	290	70	130	360	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.98		1.00	0.99			0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1770	3476		1770	3510			1801			1810	
Flt Permitted	0.12	1.00		0.19	1.00			0.65			0.76	
Satd. Flow (perm)	233	3476		347	3510			1195			1395	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	728	98	65	913	54	185	315	76	141	391	76
RTOR Reduction (vph)	0	12	0	0	5	0	0	6	0	0	6	0
Lane Group Flow (vph)	43	814	0	65	962	0	0	570	0	0	602	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.0	32.0		32.0	32.0			50.0			50.0	
Effective Green, g (s)	32.0	32.0		32.0	32.0			50.0			50.0	
Actuated g/C Ratio	0.36	0.36		0.36	0.36			0.56			0.56	
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)	82	1235		123	1248			663			775	
v/s Ratio Prot		0.23			c0.27							
v/s Ratio Perm	0.18			0.19				c0.48			0.43	
v/c Ratio	0.52	0.66		0.53	0.77			0.86			0.78	
Uniform Delay, d1	23.0	24.4		23.0	25.7			17.0			15.6	
Progression Factor	0.34	0.27		0.59	0.57			1.12			1.00	
Incremental Delay, d2	2.2	0.3		14.5	4.4			9.0			7.5	
Delay (s)	10.0	6.9		28.2	19.2			28.1			23.2	
Level of Service	A	A		C	B			C			C	
Approach Delay (s)		7.0			19.8			28.1			23.2	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.2%	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)	100	530	50	20	650	100	150	310	40	140	200	170
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	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	0.98			0.99			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	3494		1770	3468			1816			1755	
Flt Permitted	0.25	1.00		0.35	1.00			0.67			0.70	
Satd. Flow (perm)	472	3494		644	3468			1231			1252	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	576	54	22	707	109	163	337	43	152	217	185
RTOR Reduction (vph)	0	8	0	0	14	0	0	3	0	0	20	0
Lane Group Flow (vph)	109	622	0	22	802	0	0	540	0	0	534	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	42.0	42.0		42.0	42.0			40.0			40.0	
Effective Green, g (s)	42.0	42.0		42.0	42.0			40.0			40.0	
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.44			0.44	
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)	220	1630		300	1618			547			556	
v/s Ratio Prot		0.18			c0.23							
v/s Ratio Perm	0.23			0.03				c0.44			0.43	
v/c Ratio	0.50	0.38		0.07	0.50			0.99			0.96	
Uniform Delay, d1	16.6	15.6		13.3	16.7			24.7			24.2	
Progression Factor	0.67	0.71		0.90	0.74			1.00			0.89	
Incremental Delay, d2	7.6	0.7		0.4	0.9			35.3			22.9	
Delay (s)	18.9	11.8		12.3	13.2			60.1			44.4	
Level of Service	B	B		B	B			E			D	
Approach Delay (s)		12.8			13.2			60.1			44.4	
Approach LOS		B			B			E			D	

Intersection Summary			
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.8%	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	400	850	420	1240	0	20	0	20	290	20	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0			4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	0.95			1.00			1.00	1.00
Frt		1.00	0.85	1.00	1.00			0.93			1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00			0.98			0.96	1.00
Satd. Flow (prot)		1727	1468	1641	3282			1631			1763	1468
Flt Permitted		1.00	1.00	0.45	1.00			0.81			0.71	1.00
Satd. Flow (perm)		1727	1468	780	3282			1348			1307	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	435	924	442	1305	0	22	0	22	315	22	65
RTOR Reduction (vph)	0	0	362	0	0	0	0	16	0	0	0	28
Lane Group Flow (vph)	0	435	562	442	1305	0	0	28	0	0	337	37
Heavy Vehicles (%)	2%	10%	10%	10%	10%	2%	2%	2%	10%	3%	2%	10%
Turn Type		NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases			4	8			2			6		6
Actuated Green, G (s)		43.9	43.9	43.9	43.9			20.3			20.3	20.3
Effective Green, g (s)		43.9	43.9	43.9	43.9			20.3			20.3	20.3
Actuated g/C Ratio		0.61	0.61	0.61	0.61			0.28			0.28	0.28
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0			4.0	4.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)		1050	892	474	1995			379			367	412
v/s Ratio Prot		0.25			0.40							
v/s Ratio Perm			0.38	c0.57				0.02			c0.26	0.03
v/c Ratio		0.41	0.63	0.93	0.65			0.07			0.92	0.09
Uniform Delay, d1		7.4	9.0	12.8	9.2			19.1			25.1	19.1
Progression Factor		1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2		0.3	1.4	25.4	0.8			0.1			27.1	0.1
Delay (s)		7.7	10.4	38.2	10.0			19.1			52.3	19.2
Level of Service		A	B	D	A			B			D	B
Approach Delay (s)		9.5			17.1			19.1			46.9	
Approach LOS		A			B			B			D	

Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	72.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.0%	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)	80	630	0	0	1180	790	480	10	140	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0	4.0			
Lane Util. Factor		0.95			0.95			1.00	1.00			
Frt		1.00			0.94			1.00	0.85			
Flt Protected		0.99			1.00			0.95	1.00			
Satd. Flow (prot)		3317			3084			1649	1468			
Flt Permitted		0.54			1.00			0.95	1.00			
Satd. Flow (perm)		1798			3084			1649	1468			
Peak-hour factor, PHF	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	685	0	0	1242	832	522	11	152	0	0	0
RTOR Reduction (vph)	0	0	0	0	144	0	0	0	106	0	0	0
Lane Group Flow (vph)	0	772	0	0	1930	0	0	533	46	0	0	0
Heavy Vehicles (%)	10%	8%	2%	2%	10%	10%	10%	2%	10%	2%	2%	2%
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Actuated Green, G (s)		48.0			48.0			24.0	24.0			
Effective Green, g (s)		48.0			48.0			24.0	24.0			
Actuated g/C Ratio		0.60			0.60			0.30	0.30			
Clearance Time (s)		4.0			4.0			4.0	4.0			
Vehicle Extension (s)		3.0			3.0			3.0	3.0			
Lane Grp Cap (vph)		1078			1850			494	440			
v/s Ratio Prot					c0.63							
v/s Ratio Perm		0.43						0.32	0.03			
v/c Ratio		1.02dl			1.04			1.08	0.10			
Uniform Delay, d1		11.2			16.0			28.0	20.2			
Progression Factor		1.00			1.00			1.00	1.00			
Incremental Delay, d2		2.3			33.2			63.4	0.1			
Delay (s)		13.5			49.2			91.4	20.3			
Level of Service		B			D			F	C			
Approach Delay (s)		13.5			49.2			75.6			0.0	
Approach LOS		B			D			E			A	

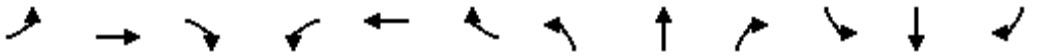
Intersection Summary			
HCM 2000 Control Delay	46.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	113.8%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	810	80	220	1250	220	370
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	0.99		1.00	1.00	0.92	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3491		1770	3539	1674	
Flt Permitted	1.00		0.24	1.00	0.98	
Satd. Flow (perm)	3491		438	3539	1674	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	880	87	239	1359	239	402
RTOR Reduction (vph)	12	0	0	0	91	0
Lane Group Flow (vph)	955	0	239	1359	550	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	4			8	2	
Permitted Phases			8			
Actuated Green, G (s)	36.0		36.0	36.0	21.0	
Effective Green, g (s)	36.0		36.0	36.0	21.0	
Actuated g/C Ratio	0.55		0.55	0.55	0.32	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1933		242	1960	540	
v/s Ratio Prot	0.27			0.38	c0.33	
v/s Ratio Perm			c0.55			
v/c Ratio	0.49		0.99	0.69	1.02	
Uniform Delay, d1	8.9		14.3	10.5	22.0	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.2		53.8	1.1	43.6	
Delay (s)	9.1		68.1	11.6	65.6	
Level of Service	A		E	B	E	
Approach Delay (s)	9.1			20.0	65.6	
Approach LOS	A			C	E	

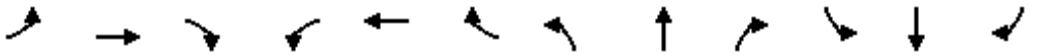
Intersection Summary			
HCM 2000 Control Delay	25.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	730	250	110	20	510	410	410	280	130	180	160	410
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.9		4.0	4.9	4.9	4.1	4.1		4.1	4.1	4.1
Lane Util. Factor	0.97	0.95		1.00	1.00	1.00	0.97	0.95		1.00	0.95	1.00
Frt	1.00	0.95		1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3400	3192		1703	1743	1568	3242	3226		1736	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.64	1.00		0.39	1.00	1.00
Satd. Flow (perm)	3400	3192		1703	1743	1568	2191	3226		708	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	793	272	120	22	554	446	446	304	141	196	174	446
RTOR Reduction (vph)	0	51	0	0	0	82	0	61	0	0	0	318
Lane Group Flow (vph)	793	341	0	22	554	364	446	384	0	196	174	128
Heavy Vehicles (%)	3%	7%	10%	6%	9%	3%	8%	5%	10%	4%	2%	2%
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases						8	2			6		6
Actuated Green, G (s)	21.0	50.4		2.0	31.4	31.4	26.3	26.3		26.3	26.3	26.3
Effective Green, g (s)	21.0	50.4		2.0	31.4	31.4	26.3	26.3		26.3	26.3	26.3
Actuated g/C Ratio	0.23	0.55		0.02	0.34	0.34	0.29	0.29		0.29	0.29	0.29
Clearance Time (s)	4.0	4.9		4.0	4.9	4.9	4.1	4.1		4.1	4.1	4.1
Vehicle Extension (s)	3.0	0.2		3.0	0.2	0.2	0.2	0.2		0.2	0.2	0.2
Lane Grp Cap (vph)	778	1754		37	596	536	628	925		203	1015	454
v/s Ratio Prot	c0.23	0.11		0.01	c0.32			0.12			0.05	
v/s Ratio Perm						0.23	0.20			c0.28		0.08
v/c Ratio	1.02	0.19		0.59	0.93	0.68	0.71	0.41		0.97	0.17	0.28
Uniform Delay, d1	35.4	10.4		44.4	29.1	25.8	29.3	26.5		32.3	24.5	25.4
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	37.2	0.0		23.1	20.7	2.7	6.7	1.4		52.5	0.0	0.1
Delay (s)	72.6	10.4		67.5	49.7	28.5	36.0	27.8		84.8	24.6	25.5
Level of Service	E	B		E	D	C	D	C		F	C	C
Approach Delay (s)		52.0			40.9			31.9			39.5	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	41.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	91.7	Sum of lost time (s)	13.0
Intersection Capacity Utilization	100.3%	ICU Level of Service	G
Analysis Period (min)	15		

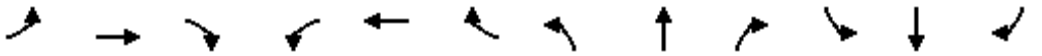
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	400	220	100	760	0	0	0	0	100	510	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.2	4.2	4.2						4.6	
Lane Util. Factor		1.00	1.00	1.00	1.00						0.95	
Frt		1.00	0.85	1.00	1.00						0.99	
Flt Protected		1.00	1.00	0.95	1.00						0.99	
Satd. Flow (prot)		1727	1568	1752	1792						3471	
Flt Permitted		1.00	1.00	0.41	1.00						0.99	
Satd. Flow (perm)		1727	1568	764	1792						3471	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	435	239	109	826	0	0	0	0	109	554	33
RTOR Reduction (vph)	0	0	49	0	0	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	435	190	109	826	0	0	0	0	0	692	0
Heavy Vehicles (%)	2%	10%	3%	3%	6%	2%	2%	2%	2%	5%	2%	2%
Turn Type		NA	Perm	Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases			4	8						6		
Actuated Green, G (s)		48.4	48.4	48.4	48.4						32.8	
Effective Green, g (s)		48.4	48.4	48.4	48.4						32.8	
Actuated g/C Ratio		0.54	0.54	0.54	0.54						0.36	
Clearance Time (s)		4.2	4.2	4.2	4.2						4.6	
Vehicle Extension (s)		0.2	0.2	0.2	0.2						0.2	
Lane Grp Cap (vph)		928	843	410	963						1264	
v/s Ratio Prot		0.25			c0.46							
v/s Ratio Perm			0.12	0.14							0.20	
v/c Ratio		0.47	0.22	0.27	0.86						0.55	
Uniform Delay, d1		12.9	10.9	11.2	17.8						22.7	
Progression Factor		1.00	1.00	0.91	0.69						1.00	
Incremental Delay, d2		0.1	0.0	0.1	4.8						1.7	
Delay (s)		13.0	11.0	10.3	17.1						24.4	
Level of Service		B	B	B	B						C	
Approach Delay (s)		12.3			16.3			0.0			24.4	
Approach LOS		B			B			A			C	

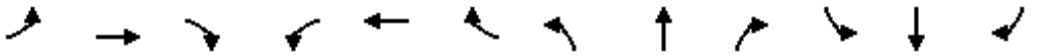
Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	110.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



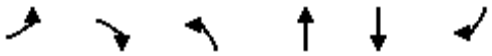
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	470	0	0	550	110	310	770	70	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6			4.6	4.6	4.0	4.6	4.6			
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1752	1776			1776	1509	1770	1845	1538			
Flt Permitted	0.13	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	243	1776			1776	1509	1770	1845	1538			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	511	0	0	598	120	337	837	76	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	24	0	0	11	0	0	0
Lane Group Flow (vph)	33	511	0	0	598	96	337	837	65	0	0	0
Heavy Vehicles (%)	3%	7%	2%	2%	7%	7%	2%	3%	5%	2%	2%	2%
Turn Type	Perm	NA			NA	Perm	Prot	NA	Perm			
Protected Phases		4			8		5	2				
Permitted Phases	4					8			2			
Actuated Green, G (s)	30.4	30.4			30.4	30.4	51.0	50.4	50.4			
Effective Green, g (s)	30.4	30.4			30.4	30.4	51.0	50.4	50.4			
Actuated g/C Ratio	0.34	0.34			0.34	0.34	0.57	0.56	0.56			
Clearance Time (s)	4.6	4.6			4.6	4.6	4.0	4.6	4.6			
Lane Grp Cap (vph)	82	599			599	509	1003	1033	861			
v/s Ratio Prot		0.29			c0.34		0.19	c0.45				
v/s Ratio Perm	0.14					0.06			0.04			
v/c Ratio	0.40	0.85			1.00	0.19	0.34	0.81	0.08			
Uniform Delay, d1	22.8	27.7			29.8	21.1	10.4	15.9	9.1			
Progression Factor	0.72	0.71			1.00	1.00	0.82	1.06	0.67			
Incremental Delay, d2	12.8	13.2			36.4	0.8	0.8	5.9	0.1			
Delay (s)	29.2	32.9			66.1	21.9	9.4	22.8	6.2			
Level of Service	C	C			E	C	A	C	A			
Approach Delay (s)		32.7			58.7			18.2			0.0	
Approach LOS		C			E			B			A	

Intersection Summary			
HCM 2000 Control Delay	32.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	110.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	390	440	20	180	0	0	0	0	10	690	420
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.0	3.7	4.2						4.9	4.9
Lane Util. Factor		1.00	1.00	1.00	1.00						0.95	1.00
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						1.00	1.00
Satd. Flow (prot)		1863	1583	1770	1863						3537	1583
Flt Permitted		1.00	1.00	0.95	1.00						1.00	1.00
Satd. Flow (perm)		1863	1583	1770	1863						3537	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	424	478	22	196	0	0	0	0	11	750	457
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	217
Lane Group Flow (vph)	0	424	478	22	196	0	0	0	0	0	761	240
Turn Type		NA	Free	Prot	NA					Perm	NA	Perm
Protected Phases		4		3	8						6	
Permitted Phases			Free							6		6
Actuated Green, G (s)		27.5	90.0	2.4	33.6						47.3	47.3
Effective Green, g (s)		27.5	90.0	2.4	33.6						47.3	47.3
Actuated g/C Ratio		0.31	1.00	0.03	0.37						0.53	0.53
Clearance Time (s)		4.2		3.7	4.2						4.9	4.9
Vehicle Extension (s)		4.9		2.0	4.6						5.2	5.2
Lane Grp Cap (vph)		569	1583	47	695						1858	831
v/s Ratio Prot		c0.23		0.01	0.11							
v/s Ratio Perm			c0.30								0.22	0.15
v/c Ratio		0.75	0.30	0.47	0.28						0.41	0.29
Uniform Delay, d1		28.1	0.0	43.2	19.8						12.9	11.9
Progression Factor		1.00	1.00	0.59	1.50						1.00	1.00
Incremental Delay, d2		6.2	0.5	1.7	0.3						0.7	0.9
Delay (s)		34.3	0.5	27.3	29.9						13.6	12.8
Level of Service		C	A	C	C						B	B
Approach Delay (s)		16.4			29.6			0.0			13.3	
Approach LOS		B			C			A			B	

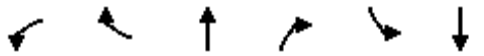
Intersection Summary			
HCM 2000 Control Delay	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	400	0	200	1190	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2			4.9		
Lane Util. Factor	1.00			0.95		
Frt	1.00			1.00		
Flt Protected	0.95			0.99		
Satd. Flow (prot)	1770			3514		
Flt Permitted	0.95			0.99		
Satd. Flow (perm)	1770			3514		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	435	0	217	1293	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	435	0	0	1510	0	0
Turn Type	Prot		Perm	NA		
Protected Phases	4			2		
Permitted Phases			2			
Actuated Green, G (s)	28.9			52.0		
Effective Green, g (s)	28.9			52.0		
Actuated g/C Ratio	0.32			0.58		
Clearance Time (s)	4.2			4.9		
Vehicle Extension (s)	5.7			5.2		
Lane Grp Cap (vph)	568			2030		
v/s Ratio Prot	c0.25					
v/s Ratio Perm				0.43		
v/c Ratio	0.77			0.74		
Uniform Delay, d1	27.5			14.1		
Progression Factor	0.57			0.87		
Incremental Delay, d2	6.5			2.0		
Delay (s)	22.2			14.2		
Level of Service	C			B		
Approach Delay (s)	22.2			14.2	0.0	
Approach LOS	C			B	A	

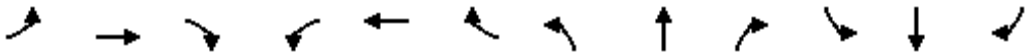
Intersection Summary			
HCM 2000 Control Delay	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	96.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



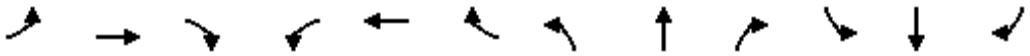
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	200	0	0	0	280	870
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2					4.9
Lane Util. Factor	1.00					0.95
Frt	1.00					1.00
Flt Protected	0.95					0.99
Satd. Flow (prot)	1770					3497
Flt Permitted	0.95					0.99
Satd. Flow (perm)	1770					3497
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	0	0	0	304	946
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	217	0	0	0	0	1250
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Actuated Green, G (s)	17.9					63.0
Effective Green, g (s)	17.9					63.0
Actuated g/C Ratio	0.20					0.70
Clearance Time (s)	4.2					4.9
Vehicle Extension (s)	4.8					5.4
Lane Grp Cap (vph)	352					2447
v/s Ratio Prot	c0.12					
v/s Ratio Perm						0.36
v/c Ratio	0.62					0.51
Uniform Delay, d1	32.9					6.3
Progression Factor	0.50					0.72
Incremental Delay, d2	4.3					0.7
Delay (s)	20.6					5.3
Level of Service	C					A
Approach Delay (s)	20.6		0.0			5.3
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	7.5	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)	9.1
Intersection Capacity Utilization	108.2%	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)	20	260	0	0	190	490	10	880	550	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.2	4.2		4.9	4.9			
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	1863			1863	1583		3537	1583			
Flt Permitted	0.56	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1052	1863			1863	1583		3537	1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	283	0	0	207	533	11	957	598	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	52	0	0	207	0	0	0
Lane Group Flow (vph)	22	283	0	0	207	481	0	968	391	0	0	0
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4					8	2		2			
Actuated Green, G (s)	32.5	32.5			32.5	32.5		48.4	48.4			
Effective Green, g (s)	32.5	32.5			32.5	32.5		48.4	48.4			
Actuated g/C Ratio	0.36	0.36			0.36	0.36		0.54	0.54			
Clearance Time (s)	4.2	4.2			4.2	4.2		4.9	4.9			
Vehicle Extension (s)	4.5	4.5			4.8	4.8		3.8	3.8			
Lane Grp Cap (vph)	379	672			672	571		1902	851			
v/s Ratio Prot		0.15			0.11							
v/s Ratio Perm	0.02					c0.30		0.27	0.25			
v/c Ratio	0.06	0.42			0.31	0.84		0.51	0.46			
Uniform Delay, d1	18.8	21.7			20.7	26.4		13.2	12.8			
Progression Factor	1.41	1.45			1.00	1.00		0.29	0.07			
Incremental Delay, d2	0.1	0.6			0.5	11.9		0.5	0.9			
Delay (s)	26.6	32.0			21.2	38.3		4.3	1.8			
Level of Service	C	C			C	D		A	A			
Approach Delay (s)		31.6			33.5			3.3			0.0	
Approach LOS		C			C			A			A	

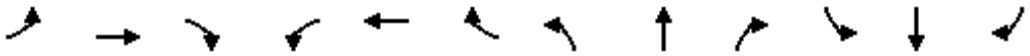
Intersection Summary			
HCM 2000 Control Delay	15.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	95.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	560	40	170	470	0	0	0	0	190	740	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2		3.7	4.2						4.9	
Lane Util. Factor		1.00		1.00	1.00						0.95	
Frt		0.99		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1765		1770	1863						3439	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		1765		1770	1863						3439	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	609	43	185	511	0	0	0	0	207	804	152
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	0	0	13	0
Lane Group Flow (vph)	0	649	0	185	511	0	0	0	0	0	1150	0
Heavy Vehicles (%)	2%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases										6		
Actuated Green, G (s)		30.4		10.8	44.9						36.0	
Effective Green, g (s)		30.4		10.8	44.9						36.0	
Actuated g/C Ratio		0.34		0.12	0.50						0.40	
Clearance Time (s)		4.2		3.7	4.2						4.9	
Vehicle Extension (s)		6.8		2.0	6.8						0.2	
Lane Grp Cap (vph)		596		212	929						1375	
v/s Ratio Prot		c0.37		c0.10	0.27							
v/s Ratio Perm											0.33	
v/c Ratio		1.09		0.87	0.55						0.84	
Uniform Delay, d1		29.8		38.9	15.6						24.3	
Progression Factor		1.00		1.50	0.14						0.83	
Incremental Delay, d2		63.6		9.3	0.4						5.5	
Delay (s)		93.4		67.6	2.6						25.7	
Level of Service		F		E	A						C	
Approach Delay (s)		93.4			19.8			0.0			25.7	
Approach LOS		F			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	41.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



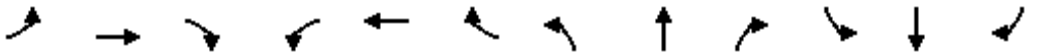
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	180	570	0	0	570	110	70	1150	50	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.7	4.2			4.2	4.2		4.9	4.9			
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	1776			1863	1583		3529	1583			
Flt Permitted	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1770	1776			1863	1583		3529	1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	620	0	0	620	120	76	1250	54	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	49	0	0	31	0	0	0
Lane Group Flow (vph)	196	620	0	0	620	71	0	1326	23	0	0	0
Heavy Vehicles (%)	2%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases						8	2		2			
Actuated Green, G (s)	8.9	42.4			29.8	29.8		38.5	38.5			
Effective Green, g (s)	8.9	42.4			29.8	29.8		38.5	38.5			
Actuated g/C Ratio	0.10	0.47			0.33	0.33		0.43	0.43			
Clearance Time (s)	3.7	4.2			4.2	4.2		4.9	4.9			
Vehicle Extension (s)	2.0	5.1			5.1	5.1		0.2	0.2			
Lane Grp Cap (vph)	175	836			616	524		1509	677			
v/s Ratio Prot	c0.11	0.35			c0.33							
v/s Ratio Perm						0.04		0.38	0.01			
v/c Ratio	1.12	0.74			1.01	0.13		0.88	0.03			
Uniform Delay, d1	40.5	19.3			30.1	21.1		23.6	15.0			
Progression Factor	0.86	0.90			1.00	1.00		1.00	1.00			
Incremental Delay, d2	61.6	0.4			37.9	0.3		7.6	0.1			
Delay (s)	96.4	17.8			68.0	21.3		31.2	15.0			
Level of Service	F	B			E	C		C	B			
Approach Delay (s)		36.7			60.4			30.6			0.0	
Approach LOS		D			E			C			A	

Intersection Summary			
HCM 2000 Control Delay	39.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

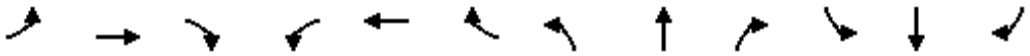
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	560	60	160	520	120	60	590	80	110	330	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6		4.6	4.6		4.6	4.6		4.6	4.6	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	0.98		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1836		1770	1810		1770	1829		1770	1784	
Flt Permitted	0.16	1.00		0.18	1.00		0.29	1.00		0.15	1.00	
Satd. Flow (perm)	295	1836		329	1810		547	1829		282	1784	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	609	65	174	565	130	65	641	87	120	359	141
RTOR Reduction (vph)	0	6	0	0	13	0	0	8	0	0	22	0
Lane Group Flow (vph)	152	668	0	174	682	0	65	720	0	120	478	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	29.4	29.4		29.4	29.4		26.4	26.4		26.4	26.4	
Effective Green, g (s)	29.4	29.4		29.4	29.4		26.4	26.4		26.4	26.4	
Actuated g/C Ratio	0.45	0.45		0.45	0.45		0.41	0.41		0.41	0.41	
Clearance Time (s)	4.6	4.6		4.6	4.6		4.6	4.6		4.6	4.6	
Vehicle Extension (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
Lane Grp Cap (vph)	133	830		148	818		222	742		114	724	
v/s Ratio Prot		0.36			0.38			0.39			0.27	
v/s Ratio Perm	0.52			c0.53			0.12			c0.43		
v/c Ratio	1.14	0.80		1.18	0.83		0.29	0.97		1.05	0.66	
Uniform Delay, d1	17.8	15.3		17.8	15.7		13.0	18.9		19.3	15.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	121.5	5.9		129.0	7.5		0.9	25.9		99.1	2.4	
Delay (s)	139.3	21.2		146.8	23.2		13.9	44.9		118.4	18.0	
Level of Service	F	C		F	C		B	D		F	B	
Approach Delay (s)		42.9			47.9			42.3			37.5	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	43.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	100.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



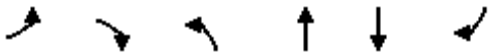
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	240	460	190	140	430	160	120	1130	140	140	640	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.9	4.9	4.9	4.9	4.9		4.9	4.9		4.9	4.9	4.9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1787		1770	3481		1770	3539	1583
Flt Permitted	0.20	1.00	1.00	0.32	1.00		0.31	1.00		0.14	1.00	1.00
Satd. Flow (perm)	366	1863	1583	605	1787		583	3481		256	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	500	207	152	467	174	130	1228	152	152	696	283
RTOR Reduction (vph)	0	0	66	0	11	0	0	13	0	0	0	159
Lane Group Flow (vph)	261	500	141	152	630	0	130	1367	0	152	696	124
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases	4		4	8			6			2		2
Actuated Green, G (s)	31.1	31.1	31.1	31.1	31.1		29.1	29.1		29.1	29.1	29.1
Effective Green, g (s)	31.1	31.1	31.1	31.1	31.1		29.1	29.1		29.1	29.1	29.1
Actuated g/C Ratio	0.44	0.44	0.44	0.44	0.44		0.42	0.42		0.42	0.42	0.42
Clearance Time (s)	4.9	4.9	4.9	4.9	4.9		4.9	4.9		4.9	4.9	4.9
Vehicle Extension (s)	4.5	4.5	4.5	4.5	4.5		5.0	5.0		5.0	5.0	5.0
Lane Grp Cap (vph)	162	827	703	268	793		242	1447		106	1471	658
v/s Ratio Prot		0.27			0.35			0.39			0.20	
v/s Ratio Perm	c0.71		0.09	0.25			0.22			c0.59		0.08
v/c Ratio	1.61	0.60	0.20	0.57	0.79		0.54	0.94		1.43	0.47	0.19
Uniform Delay, d1	19.4	14.8	11.9	14.4	16.7		15.4	19.7		20.4	14.9	13.0
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	301.7	1.6	0.2	3.9	6.1		4.1	13.1		240.8	0.5	0.3
Delay (s)	321.2	16.4	12.1	18.3	22.8		19.5	32.7		261.2	15.4	13.3
Level of Service	F	B	B	B	C		B	C		F	B	B
Approach Delay (s)		97.7			22.0			31.6			47.9	
Approach LOS		F			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	48.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.52		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.8
Intersection Capacity Utilization	105.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



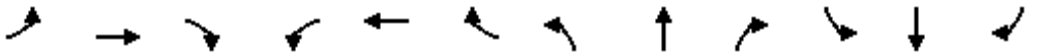
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	390	220	10	200	0	0	0	0	10	470	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.7	4.0		3.7						4.1	
Lane Util. Factor		1.00	1.00		1.00						0.95	
Frt		1.00	0.85		1.00						0.94	
Flt Protected		1.00	1.00		1.00						1.00	
Satd. Flow (prot)		1863	1583		1858						3314	
Flt Permitted		1.00	1.00		0.98						1.00	
Satd. Flow (perm)		1863	1583		1819						3314	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	424	239	11	217	0	0	0	0	11	511	380
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	105	0
Lane Group Flow (vph)	0	424	239	0	228	0	0	0	0	0	797	0
Turn Type		NA	Free	Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases			Free	8						6		
Actuated Green, G (s)		28.2	90.0		28.2						54.0	
Effective Green, g (s)		28.2	90.0		28.2						54.0	
Actuated g/C Ratio		0.31	1.00		0.31						0.60	
Clearance Time (s)		3.7			3.7						4.1	
Vehicle Extension (s)		5.0			4.8						4.6	
Lane Grp Cap (vph)		583	1583		569						1988	
v/s Ratio Prot		c0.23										
v/s Ratio Perm			0.15		0.13						0.24	
v/c Ratio		0.73	0.15		0.40						0.40	
Uniform Delay, d1		27.5	0.0		24.3						9.5	
Progression Factor		1.00	1.00		1.59						0.52	
Incremental Delay, d2		5.5	0.2		0.8						0.6	
Delay (s)		33.0	0.2		39.4						5.5	
Level of Service		C	A		D						A	
Approach Delay (s)		21.2			39.4			0.0			5.5	
Approach LOS		C			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.8
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



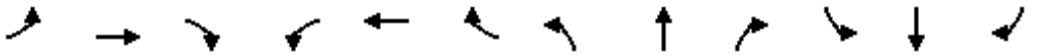
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	400	0	210	750	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6			4.6		
Lane Util. Factor	1.00			0.95		
Frt	1.00			1.00		
Flt Protected	0.95			0.99		
Satd. Flow (prot)	1770			3501		
Flt Permitted	0.95			0.99		
Satd. Flow (perm)	1770			3501		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	435	0	228	815	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	435	0	0	1043	0	0
Turn Type	Prot		Perm	NA		
Protected Phases	4			2		
Permitted Phases			2			
Actuated Green, G (s)	27.9			52.9		
Effective Green, g (s)	27.9			52.9		
Actuated g/C Ratio	0.31			0.59		
Clearance Time (s)	4.6			4.6		
Vehicle Extension (s)	3.3			4.9		
Lane Grp Cap (vph)	548			2057		
v/s Ratio Prot	c0.25					
v/s Ratio Perm				0.30		
v/c Ratio	0.79			0.51		
Uniform Delay, d1	28.4			10.9		
Progression Factor	0.51			0.93		
Incremental Delay, d2	7.1			0.8		
Delay (s)	21.4			11.0		
Level of Service	C			B		
Approach Delay (s)	21.4			11.0	0.0	
Approach LOS	C			B	A	

Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



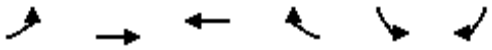
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	470	470	0	0	0	0	0	0	370	330	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.2							4.6	4.6	
Lane Util. Factor		0.95	1.00							1.00	0.95	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		3539	1583							1770	3539	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		3539	1583							1770	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	511	511	0	0	0	0	0	0	402	359	0
RTOR Reduction (vph)	0	0	177	0	0	0	0	0	0	84	0	0
Lane Group Flow (vph)	0	511	334	0	0	0	0	0	0	318	359	0
Turn Type		NA	Perm							Split	NA	
Protected Phases		4								6	6	
Permitted Phases			4									
Actuated Green, G (s)		27.5	27.5							53.7	53.7	
Effective Green, g (s)		27.5	27.5							53.7	53.7	
Actuated g/C Ratio		0.31	0.31							0.60	0.60	
Clearance Time (s)		4.2	4.2							4.6	4.6	
Vehicle Extension (s)		6.4	6.4							5.6	5.6	
Lane Grp Cap (vph)		1081	483							1056	2111	
v/s Ratio Prot		0.14								c0.18	0.10	
v/s Ratio Perm			c0.21									
v/c Ratio		0.47	0.69							0.30	0.17	
Uniform Delay, d1		25.4	27.5							8.9	8.1	
Progression Factor		1.00	1.00							0.16	0.51	
Incremental Delay, d2		1.0	6.7							0.7	0.2	
Delay (s)		26.4	34.2							2.1	4.4	
Level of Service		C	C							A	A	
Approach Delay (s)		30.3			0.0			0.0			3.2	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.8
Intersection Capacity Utilization	66.1%	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)	470	370	0	0	0	0	0	490	630	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6						4.6	4.6			
Lane Util. Factor	1.00	1.00						0.95	1.00			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						1.00	1.00			
Satd. Flow (prot)	1770	1863						3539	1583			
Flt Permitted	0.95	1.00						1.00	1.00			
Satd. Flow (perm)	1770	1863						3539	1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	511	402	0	0	0	0	0	533	685	0	0	0
RTOR Reduction (vph)	115	0	0	0	0	0	0	0	175	0	0	0
Lane Group Flow (vph)	396	402	0	0	0	0	0	533	510	0	0	0
Turn Type	Split	NA						NA	Perm			
Protected Phases	4	4						2				
Permitted Phases									2			
Actuated Green, G (s)	30.0	30.0						50.8	50.8			
Effective Green, g (s)	30.0	30.0						50.8	50.8			
Actuated g/C Ratio	0.33	0.33						0.56	0.56			
Clearance Time (s)	4.6	4.6						4.6	4.6			
Vehicle Extension (s)	5.0	5.0						4.5	4.5			
Lane Grp Cap (vph)	590	621						1997	893			
v/s Ratio Prot	c0.22	0.22						0.15				
v/s Ratio Perm									c0.32			
v/c Ratio	0.67	0.65						0.27	0.57			
Uniform Delay, d1	25.8	25.5						10.1	12.6			
Progression Factor	1.48	1.21						1.00	1.00			
Incremental Delay, d2	3.7	3.0						0.3	2.7			
Delay (s)	42.0	34.0						10.4	15.3			
Level of Service	D	C						B	B			
Approach Delay (s)		38.5			0.0			13.1			0.0	
Approach LOS		D			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	114.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	120	530	1020	680	250	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8	4.8	4.8	
Lane Util. Factor		0.95	1.00	1.00	0.97	
Frt		1.00	1.00	0.85	0.99	
Flt Protected		0.99	1.00	1.00	0.96	
Satd. Flow (prot)		3430	1776	1495	3365	
Flt Permitted		0.52	1.00	1.00	0.96	
Satd. Flow (perm)		1810	1776	1495	3365	
Peak-hour factor, PHF	0.92	0.92	0.93	0.93	0.92	0.92
Adj. Flow (vph)	130	576	1097	731	272	22
RTOR Reduction (vph)	0	0	0	351	10	0
Lane Group Flow (vph)	0	706	1097	380	284	0
Heavy Vehicles (%)	10%	3%	7%	8%	3%	10%
Turn Type	Perm	NA	NA	Perm	Prot	
Protected Phases		2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)		31.2	31.2	31.2	19.2	
Effective Green, g (s)		31.2	31.2	31.2	19.2	
Actuated g/C Ratio		0.52	0.52	0.52	0.32	
Clearance Time (s)		4.8	4.8	4.8	4.8	
Lane Grp Cap (vph)		941	923	777	1076	
v/s Ratio Prot			c0.62		c0.08	
v/s Ratio Perm		0.39		0.25		
v/c Ratio		1.14dl	1.19	0.49	0.26	
Uniform Delay, d1		11.3	14.4	9.3	15.2	
Progression Factor		1.00	1.00	1.00	1.00	
Incremental Delay, d2		5.5	95.7	2.2	0.6	
Delay (s)		16.8	110.1	11.5	15.7	
Level of Service		B	F	B	B	
Approach Delay (s)		16.8	70.7		15.7	
Approach LOS		B	E		B	

Intersection Summary			
HCM 2000 Control Delay	51.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	107.7%	ICU Level of Service	G
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

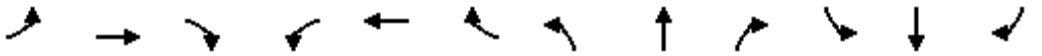
Movement	EBT	EBR	WBT	WBR	WBR2	NBL	NBT	NBR2	SBL	SBT	SBR	SWL
Lane Configurations												
Volume (vph)	10	10	10	1030	10	10	760	20	510	360	10	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6		4.6	4.6			4.6	4.6	4.6	4.6		4.2
Lane Util. Factor	1.00		1.00	1.00			0.95	1.00	1.00	1.00		1.00
Frt	0.93		1.00	0.85			1.00	0.85	1.00	1.00		0.86
Flt Protected	1.00		1.00	1.00			1.00	1.00	0.95	1.00		1.00
Satd. Flow (prot)	1737		1863	1583			3537	1583	1770	1855		1611
Flt Permitted	1.00		1.00	1.00			1.00	1.00	0.95	1.00		1.00
Satd. Flow (perm)	1737		1863	1583			3537	1583	1770	1855		1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	1120	11	11	826	22	554	391	11	0
RTOR Reduction (vph)	8	0	0	18	0	0	0	17	0	1	0	11
Lane Group Flow (vph)	14	0	11	1113	0	0	837	5	554	401	0	0
Turn Type	NA		NA	custom		Split	NA	Perm	Split	NA		Prot
Protected Phases	6		6	2		4	4		5	5		8
Permitted Phases								4				
Actuated Green, G (s)	31.0		31.0	79.4			26.4	26.4	43.8	43.8		0.8
Effective Green, g (s)	31.0		31.0	79.4			26.4	26.4	43.8	43.8		0.8
Actuated g/C Ratio	0.26		0.26	0.66			0.22	0.22	0.36	0.36		0.01
Clearance Time (s)	4.6		4.6	4.6			4.6	4.6	4.6	4.6		4.2
Vehicle Extension (s)	5.0		5.0	5.0			4.0	4.0	5.0	5.0		2.0
Lane Grp Cap (vph)	448		481	1047			778	348	646	677		10
v/s Ratio Prot	0.01		0.01	c0.70			c0.24		0.31	0.22		c0.00
v/s Ratio Perm								0.00				
v/c Ratio	0.03		0.02	1.06			1.08	0.01	0.86	0.59		0.01
Uniform Delay, d1	33.3		33.2	20.3			46.8	36.6	35.2	30.9		59.2
Progression Factor	1.00		0.73	0.82			1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	0.1		0.0	30.8			54.6	0.0	13.8	3.8		0.1
Delay (s)	33.3		24.2	47.4			101.4	36.6	49.0	34.7		59.3
Level of Service	C		C	D			F	D	D	C		E
Approach Delay (s)	33.3		47.2				99.8			43.0		59.3
Approach LOS	C		D				F			D		E

Intersection Summary			
HCM 2000 Control Delay	60.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



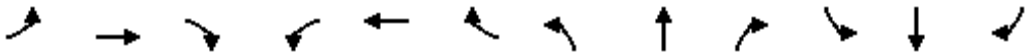
Movement	SWR2
Lane Configurations	
Volume (vph)	10
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	11
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
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



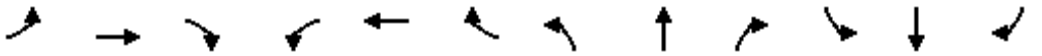
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	360	100	10	570	0	460	0	40	270	520	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5		4.5	4.5	4.5	4.5
Lane Util. Factor		1.00		1.00	1.00		1.00		1.00	1.00	1.00	1.00
Frt		0.97		1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		1808		1770	1863		1770		1583	1770	1863	1583
Flt Permitted		1.00		0.12	1.00		0.35		1.00	0.95	1.00	1.00
Satd. Flow (perm)		1808		218	1863		658		1583	1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	391	109	11	620	0	500	0	43	293	565	11
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	9	0	0	4
Lane Group Flow (vph)	0	492	0	11	620	0	500	0	34	293	565	7
Turn Type		NA		Perm	NA		D.Pm		Perm	Perm	NA	Perm
Protected Phases					4						2	
Permitted Phases		4		4			2		2	2		2
Actuated Green, G (s)		36.5		36.5	36.5		74.5		74.5	74.5	74.5	74.5
Effective Green, g (s)		36.5		36.5	36.5		74.5		74.5	74.5	74.5	74.5
Actuated g/C Ratio		0.30		0.30	0.30		0.62		0.62	0.62	0.62	0.62
Clearance Time (s)		4.5		4.5	4.5		4.5		4.5	4.5	4.5	4.5
Vehicle Extension (s)		2.0		2.0	2.0		2.0		2.0	2.0	2.0	2.0
Lane Grp Cap (vph)		549		66	566		408		982	1098	1156	982
v/s Ratio Prot					c0.33						0.30	
v/s Ratio Perm		0.27		0.05			c0.76		0.02	0.17		0.00
v/c Ratio		0.90		0.17	1.10		1.23		0.03	0.27	0.49	0.01
Uniform Delay, d1		39.9		30.6	41.8		22.8		8.8	10.3	12.4	8.7
Progression Factor		0.42		0.47	0.50		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		13.8		0.5	46.0		121.5		0.1	0.6	1.5	0.0
Delay (s)		30.6		14.8	66.7		144.2		8.9	10.9	13.9	8.7
Level of Service		C		B	E		F		A	B	B	A
Approach Delay (s)		30.6			65.8			133.5			12.8	
Approach LOS		C			E			F			B	

Intersection Summary			
HCM 2000 Control Delay	55.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	93.7%	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)	10	440	220	20	450	210	130	860	20	0	0	0
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			4.2	4.2			
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00			
Frt	1.00	0.95		1.00	0.95			1.00	0.85			
Flt Protected	0.95	1.00		0.95	1.00			0.99	1.00			
Satd. Flow (prot)	1770	1772		1770	1774			1851	1583			
Flt Permitted	0.09	1.00		0.09	1.00			0.99	1.00			
Satd. Flow (perm)	160	1772		160	1774			1851	1583			
Peak-hour factor, PHF	0.92	0.92	0.96	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	11	478	229	22	489	228	138	915	21	0	0	0
RTOR Reduction (vph)	0	14	0	0	14	0	0	0	6	0	0	0
Lane Group Flow (vph)	11	693	0	22	703	0	0	1053	15	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm			
Protected Phases		8			4			6				
Permitted Phases	8			4			6		6			
Actuated Green, G (s)	46.5	46.5		46.5	46.5			64.8	64.8			
Effective Green, g (s)	46.5	46.5		46.5	46.5			64.8	64.8			
Actuated g/C Ratio	0.39	0.39		0.39	0.39			0.54	0.54			
Clearance Time (s)	4.5	4.5		4.5	4.5			4.2	4.2			
Vehicle Extension (s)	2.0	2.0		2.0	2.0			2.0	2.0			
Lane Grp Cap (vph)	62	686		62	687			999	854			
v/s Ratio Prot		0.39			c0.40							
v/s Ratio Perm	0.07			0.14				0.57	0.01			
v/c Ratio	0.18	1.01		0.35	1.02			1.05	0.02			
Uniform Delay, d1	24.2	36.8		26.1	36.8			27.6	12.8			
Progression Factor	1.25	0.99		0.99	0.99			1.00	1.00			
Incremental Delay, d2	5.0	33.4		13.3	38.1			43.8	0.0			
Delay (s)	35.1	69.9		39.0	74.3			71.4	12.9			
Level of Service	D	E		D	E			E	B			
Approach Delay (s)		69.4			73.3			70.3			0.0	
Approach LOS		E			E			E			A	

Intersection Summary			
HCM 2000 Control Delay	70.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.7
Intersection Capacity Utilization	96.3%	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	550	60	0	410	0	0	0	0	100	410	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5					4.9	4.9	4.9
Lane Util. Factor		1.00			1.00					1.00	0.95	1.00
Frt		0.99			1.00					1.00	1.00	0.85
Flt Protected		1.00			1.00					0.95	1.00	1.00
Satd. Flow (prot)		1838			1863					1770	3539	1583
Flt Permitted		1.00			1.00					0.95	1.00	1.00
Satd. Flow (perm)		1838			1863					1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	598	65	0	446	0	0	0	0	109	446	87
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	0	0	0	54
Lane Group Flow (vph)	0	657	0	0	446	0	0	0	0	109	446	33
Turn Type		NA			NA					Perm	NA	Perm
Protected Phases		4			4						2	
Permitted Phases										2		2
Actuated Green, G (s)		27.5			27.5					23.1	23.1	23.1
Effective Green, g (s)		27.5			27.5					23.1	23.1	23.1
Actuated g/C Ratio		0.46			0.46					0.39	0.39	0.39
Clearance Time (s)		4.5			4.5					4.9	4.9	4.9
Lane Grp Cap (vph)		842			853					681	1362	609
v/s Ratio Prot		c0.36			0.24						c0.13	
v/s Ratio Perm										0.06		0.02
v/c Ratio		0.78			0.52					0.16	0.33	0.06
Uniform Delay, d1		13.7			11.6					12.1	13.0	11.6
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		7.1			2.3					0.5	0.6	0.2
Delay (s)		20.8			13.9					12.6	13.6	11.8
Level of Service		C			B					B	B	B
Approach Delay (s)		20.8			13.9			0.0			13.2	
Approach LOS		C			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.4
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

MOVEMENT SUMMARY

Site: 25_Divisidero_Abby_PM

Divisadero Street/Abby Street/P Street
Cumulative Plus Project Mall Open
Roundabout

Movement Performance - Vehicles

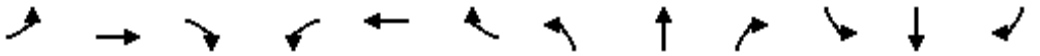
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
SouthEast: P Street											
3x	L2	98	2.0	1.265	147.0	LOS F	70.5	1791.6	1.00	7.90	7.3
3ax	L1	185	2.0	1.265	147.1	LOS F	70.5	1791.6	1.00	7.90	7.3
18ax	R1	478	2.0	1.265	140.9	LOS F	70.5	1791.6	1.00	7.90	7.3
18bx	R3	22	2.0	1.265	143.1	LOS F	70.5	1791.6	1.00	7.90	7.3
Approach		783	2.0	1.265	143.2	LOS F	70.5	1791.6	1.00	3.95	7.3
East: Divisidero											
1b	L3	11	2.0	1.121	104.8	LOS F	34.1	866.7	1.00	4.24	9.8
1a	L1	76	2.0	1.121	104.3	LOS F	34.1	866.7	1.00	4.24	9.8
6	T1	261	1.8	1.121	99.1	LOS F	34.1	866.7	1.00	4.24	9.8
16	R2	130	2.0	1.121	102.0	LOS F	34.1	866.7	1.00	4.24	9.8
Approach		478	1.9	1.121	100.9	LOS F	34.1	866.7	1.00	2.12	9.8
West: Divisidero											
5	L2	272	2.0	0.635	14.3	LOS B	6.2	157.4	0.64	1.21	28.3
2	T1	326	1.9	0.635	4.8	LOS A	6.2	157.4	0.64	1.21	28.3
12a	R1	65	2.0	0.635	4.1	LOS A	6.2	157.4	0.64	1.21	28.3
12b	R3	33	2.0	0.635	6.6	LOS A	6.2	157.4	0.64	1.21	28.3
Approach		696	2.0	0.635	8.5	LOS A	6.2	157.4	0.64	0.60	28.3
All Vehicles		1957	2.0	1.265	85.0	LOS F	70.5	1791.6	0.87	2.31	10.8

Level of Service (LOS) Method: Delay (HCM 2000).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Movement	WBT	SBL	SBR	SBR2	SET	SER	NWT
Lane Configurations							
Volume (vph)	120	100	360	10	10	10	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.9	4.9		3.0		
Lane Util. Factor	0.95	1.00	1.00		1.00		
Frt	1.00	1.00	0.85		0.93		
Flt Protected	1.00	0.95	1.00		1.00		
Satd. Flow (prot)	3539	1770	1583		1737		
Flt Permitted	1.00	0.95	1.00		1.00		
Satd. Flow (perm)	3539	1770	1583		1737		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	109	391	11	11	11	0
RTOR Reduction (vph)	0	0	82	0	10	0	0
Lane Group Flow (vph)	130	109	320	0	12	0	0
Turn Type	NA	Prot	Perm		NA		
Protected Phases	4	2			3		1
Permitted Phases			2				
Actuated Green, G (s)	37.7	22.0	22.0		5.6		
Effective Green, g (s)	37.7	22.0	22.0		5.6		
Actuated g/C Ratio	0.44	0.26	0.26		0.07		
Clearance Time (s)	4.6	4.9	4.9		3.0		
Vehicle Extension (s)	4.0	4.0	4.0		2.0		
Lane Grp Cap (vph)	1569	458	409		114		
v/s Ratio Prot	c0.04	0.06			c0.01		
v/s Ratio Perm			c0.20				
v/c Ratio	0.08	0.24	0.78		0.10		
Uniform Delay, d1	13.7	24.9	29.3		37.3		
Progression Factor	1.00	1.00	1.00		1.00		
Incremental Delay, d2	0.1	0.4	10.0		0.1		
Delay (s)	13.8	25.2	39.3		37.5		
Level of Service	B	C	D		D		
Approach Delay (s)	13.8	36.3			37.5		0.0
Approach LOS	B	D			D		A

Intersection Summary			
HCM 2000 Control Delay	31.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

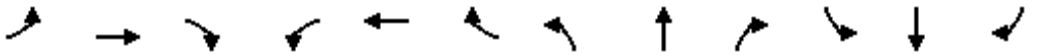


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	20	560	240	0	300	0	0	190	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.2			4.2			4.2	
Lane Util. Factor					0.91			1.00			1.00	
Frt					0.96			1.00			0.96	
Flt Protected					1.00			1.00			1.00	
Satd. Flow (prot)					4856			1863			1788	
Flt Permitted					1.00			1.00			1.00	
Satd. Flow (perm)					4856			1863			1788	
Peak-hour factor, PHF	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	21	589	253	0	326	0	0	207	87
RTOR Reduction (vph)	0	0	0	0	115	0	0	0	0	0	33	0
Lane Group Flow (vph)	0	0	0	0	748	0	0	326	0	0	261	0
Turn Type				Prot	NA			NA			NA	
Protected Phases				3	8			2			2	
Permitted Phases							2					
Actuated Green, G (s)					27.2			14.4			14.4	
Effective Green, g (s)					27.2			14.4			14.4	
Actuated g/C Ratio					0.54			0.29			0.29	
Clearance Time (s)					4.2			4.2			4.2	
Vehicle Extension (s)					3.4			3.4			3.4	
Lane Grp Cap (vph)					2641			536			514	
v/s Ratio Prot								c0.18			0.15	
v/s Ratio Perm					0.15							
v/c Ratio					1.00dr			0.61			0.51	
Uniform Delay, d1					6.1			15.4			14.8	
Progression Factor					1.00			1.00			1.00	
Incremental Delay, d2					0.1			2.0			0.9	
Delay (s)					6.2			17.4			15.8	
Level of Service					A			B			B	
Approach Delay (s)		0.0			6.2			17.4			15.8	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	39.4%	ICU Level of Service	A
Analysis Period (min)	15		

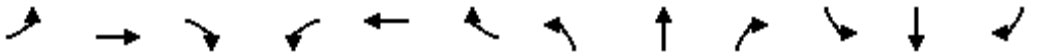
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group



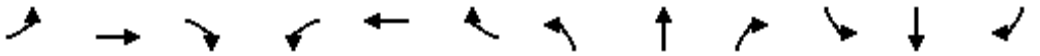
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	290	0	10	50	480	120	140	420	0	0	320	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.2	4.0	4.2	4.2	4.2	4.2			4.2	
Lane Util. Factor	1.00		1.00	0.95	0.91	0.95	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			1.00	
Flt Protected	0.95		1.00	0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1770		1583	1681	1688	1504	1770	1863			1855	
Flt Permitted	0.95		1.00	0.95	1.00	1.00	0.40	1.00			1.00	
Satd. Flow (perm)	1770		1583	1681	1688	1504	745	1863			1855	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	315	0	11	54	522	130	151	452	0	0	348	11
RTOR Reduction (vph)	0	0	6	0	1	89	0	0	0	0	1	0
Lane Group Flow (vph)	315	0	5	49	539	28	151	452	0	0	358	0
Turn Type	Prot		Perm	Prot	NA	Perm	Perm	NA			NA	
Protected Phases	7			3	8			6			2	
Permitted Phases			4			8	6					
Actuated Green, G (s)	24.6		42.0	5.6	28.6	23.0	40.0	40.0			40.0	
Effective Green, g (s)	24.6		42.0	5.6	28.6	23.0	40.0	40.0			40.0	
Actuated g/C Ratio	0.25		0.42	0.06	0.29	0.23	0.40	0.40			0.40	
Clearance Time (s)	4.0		4.2	4.0	4.2	4.2	4.2	4.2			4.2	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	435		664	94	482	345	298	745			742	
v/s Ratio Prot	c0.18			0.03	c0.06			c0.24			0.19	
v/s Ratio Perm			0.00		0.26	0.02	0.20					
v/c Ratio	0.72		0.01	0.52	1.12	0.08	0.51	0.61			0.48	
Uniform Delay, d1	34.6		16.9	45.9	35.7	30.2	22.6	23.8			22.3	
Progression Factor	0.95		1.00	0.91	0.92	1.41	1.00	1.00			1.00	
Incremental Delay, d2	5.7		0.0	4.6	75.9	0.4	6.0	3.7			2.2	
Delay (s)	38.8		16.9	46.5	108.7	42.9	28.6	27.4			24.5	
Level of Service	D		B	D	F	D	C	C			C	
Approach Delay (s)		38.0			93.5			27.7			24.5	
Approach LOS		D			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	52.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	102.1%	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)	50	40	30	230	490	110	80	420	270	160	170	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.2	4.2	4.5	4.2	4.2	4.2	4.5		4.5	4.2	
Lane Util. Factor	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	0.94		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1754		1770	1773	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	1770	1754		1770	1773	
Peak-hour factor, PHF	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	43	33	240	510	115	87	457	293	174	185	87
RTOR Reduction (vph)	0	0	27	0	0	80	0	23	0	0	17	0
Lane Group Flow (vph)	54	43	6	240	510	35	87	727	0	174	255	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		2	5		6	1	
Permitted Phases			4			8						
Actuated Green, G (s)	3.3	19.0	19.0	14.6	30.3	30.3	25.3	38.5		10.2	24.0	
Effective Green, g (s)	3.3	19.0	19.0	14.6	30.3	30.3	25.3	38.5		10.2	24.0	
Actuated g/C Ratio	0.03	0.19	0.19	0.15	0.30	0.30	0.25	0.38		0.10	0.24	
Clearance Time (s)	4.5	4.2	4.2	4.5	4.2	4.2	4.2	4.5		4.5	4.2	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	58	353	300	258	564	479	447	675		180	425	
v/s Ratio Prot	c0.03	0.02		0.14	c0.27		0.05	c0.41		c0.10	0.14	
v/s Ratio Perm			0.00			0.02						
v/c Ratio	0.93	0.12	0.02	0.93	0.90	0.07	0.19	1.08		0.97	0.60	
Uniform Delay, d1	48.2	33.6	32.9	42.2	33.5	24.8	29.3	30.8		44.7	33.7	
Progression Factor	1.00	1.00	1.00	0.83	0.78	0.70	1.00	1.00		1.00	1.00	
Incremental Delay, d2	93.1	0.7	0.1	35.2	18.9	0.3	1.0	57.1		58.9	2.4	
Delay (s)	141.3	34.3	33.1	70.0	45.0	17.7	30.3	87.8		103.6	36.1	
Level of Service	F	C	C	E	D	B	C	F		F	D	
Approach Delay (s)		78.4			48.3			81.8			62.5	
Approach LOS		E			D			F			E	

Intersection Summary			
HCM 2000 Control Delay	65.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.7
Intersection Capacity Utilization	91.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

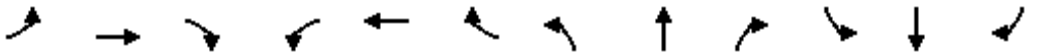


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	40	650	100	670	330	10	0	150	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	5.4			5.4			5.4	
Lane Util. Factor				1.00	0.95			0.95			0.95	
Frt				1.00	0.98			1.00			0.90	
Flt Protected				0.95	1.00			0.97			1.00	
Satd. Flow (prot)				1770	3274			3421			3171	
Flt Permitted				0.95	1.00			0.57			1.00	
Satd. Flow (perm)				1770	3274			2024			3171	
Peak-hour factor, PHF	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	43	699	108	728	359	11	0	163	370
RTOR Reduction (vph)	0	0	0	0	12	0	0	1	0	0	97	0
Lane Group Flow (vph)	0	0	0	43	795	0	0	1097	0	0	436	0
Heavy Vehicles (%)	2%	2%	2%	2%	9%	2%	2%	2%	2%	2%	2%	2%
Turn Type				Prot	NA		Perm	NA			NA	
Protected Phases				3	8			2			2	
Permitted Phases							2			2		
Actuated Green, G (s)				3.6	34.6			44.6			44.6	
Effective Green, g (s)				3.6	34.6			44.6			44.6	
Actuated g/C Ratio				0.04	0.38			0.50			0.50	
Clearance Time (s)				4.0	5.4			5.4			5.4	
Vehicle Extension (s)				3.0	0.2			0.2			0.2	
Lane Grp Cap (vph)				70	1258			1003			1571	
v/s Ratio Prot				0.02	c0.24						0.14	
v/s Ratio Perm								c0.54				
v/c Ratio				0.61	0.63			1.86dl			0.28	
Uniform Delay, d1				42.5	22.5			22.7			13.3	
Progression Factor				1.00	1.00			0.71			1.00	
Incremental Delay, d2				14.9	2.4			57.2			0.4	
Delay (s)				57.4	24.9			73.3			13.7	
Level of Service				E	C			E			B	
Approach Delay (s)		0.0			26.6			73.3			13.7	
Approach LOS		A			C			E			B	

Intersection Summary			
HCM 2000 Control Delay	44.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.8
Intersection Capacity Utilization	98.3%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

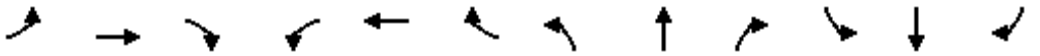
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	870	790	240	270	0	0	0	0
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				
Lane Util. Factor					0.91	0.91		1.00				
Frt					0.96	0.85		1.00				
Flt Protected					1.00	1.00		0.98				
Satd. Flow (prot)					3051	1336		1738				
Flt Permitted					1.00	1.00		0.98				
Satd. Flow (perm)					3051	1336		1738				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	946	859	261	293	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	36	135	0	33	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1211	423	0	521	0	0	0	0
Heavy Vehicles (%)	2%	2%	2%	2%	9%	10%	10%	4%	2%	2%	2%	2%
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					50.5	50.5		31.5				
Effective Green, g (s)					50.5	50.5		31.5				
Actuated g/C Ratio					0.56	0.56		0.35				
Clearance Time (s)					4.0	4.0		4.0				
Vehicle Extension (s)					3.0	3.0		3.0				
Lane Grp Cap (vph)					1711	749		608				
v/s Ratio Prot					c0.40							
v/s Ratio Perm						0.32		0.30				
v/c Ratio					0.71	0.57		0.86				
Uniform Delay, d1					14.4	12.7		27.2				
Progression Factor					0.96	1.01		0.70				
Incremental Delay, d2					0.9	0.6		14.2				
Delay (s)					14.6	13.4		33.2				
Level of Service					B	B		C				
Approach Delay (s)		0.0			14.3			33.2			0.0	
Approach LOS		A			B			C			A	

Intersection Summary			
HCM 2000 Control Delay	18.7	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)	8.0
Intersection Capacity Utilization	66.8%	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	0	0	180	930	0	0	0	0	0	250	390
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	
Lane Util. Factor				0.91	0.91						1.00	
Frt				1.00	1.00						0.92	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1493	3257						1710	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1493	3257						1710	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	196	1011	0	0	0	0	0	272	424
RTOR Reduction (vph)	0	0	0	98	7	0	0	0	0	0	51	0
Lane Group Flow (vph)	0	0	0	78	1024	0	0	0	0	0	645	0
Heavy Vehicles (%)	2%	2%	2%	10%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type				Perm	NA						NA	
Protected Phases					8						6	
Permitted Phases				8								
Actuated Green, G (s)				40.1	40.1						41.9	
Effective Green, g (s)				40.1	40.1						41.9	
Actuated g/C Ratio				0.45	0.45						0.47	
Clearance Time (s)				4.0	4.0						4.0	
Vehicle Extension (s)				3.0	3.0						3.0	
Lane Grp Cap (vph)				665	1451						796	
v/s Ratio Prot											c0.38	
v/s Ratio Perm				0.05	0.31							
v/c Ratio				0.12	0.71						0.81	
Uniform Delay, d1				14.6	20.2						20.6	
Progression Factor				0.13	0.68						1.00	
Incremental Delay, d2				0.1	1.1						8.8	
Delay (s)				2.0	14.8						29.4	
Level of Service				A	B						C	
Approach Delay (s)		0.0			12.9			0.0			29.4	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	19.0	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)	8.0
Intersection Capacity Utilization	66.8%	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)	10	0	10	230	670	420	70	220	0	0	250	0
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	
Lane Util. Factor		1.00		1.00	0.95			1.00			1.00	
Frt		0.93		1.00	0.94			1.00			1.00	
Flt Protected		0.98		0.95	1.00			0.99			1.00	
Satd. Flow (prot)		1695		1719	3273			1814			1863	
Flt Permitted		0.70		0.74	1.00			0.86			1.00	
Satd. Flow (perm)		1219		1344	3273			1576			1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	0	11	250	728	457	76	239	0	0	272	0
RTOR Reduction (vph)	0	13	0	0	234	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	9	0	250	951	0	0	315	0	0	272	0
Heavy Vehicles (%)	2%	2%	2%	5%	2%	7%	2%	4%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		14.8		14.8	14.8			11.6			11.6	
Effective Green, g (s)		14.8		14.8	14.8			11.6			11.6	
Actuated g/C Ratio		0.43		0.43	0.43			0.34			0.34	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		524		578	1408			531			628	
v/s Ratio Prot					c0.29						0.15	
v/s Ratio Perm		0.01		0.19				c0.20				
v/c Ratio		0.02		0.43	0.68			0.59			0.43	
Uniform Delay, d1		5.6		6.9	7.9			9.4			8.8	
Progression Factor		1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2		0.0		0.5	1.3			1.8			0.5	
Delay (s)		5.6		7.4	9.2			11.2			9.3	
Level of Service		A		A	A			B			A	
Approach Delay (s)		5.6			8.9			11.2			9.3	
Approach LOS		A			A			B			A	

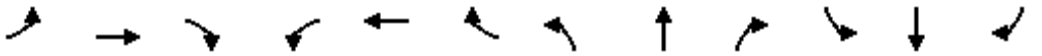
Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	34.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	140	10	0	0	0	10	10	10	150	140	20
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	152	11	0	0	0	11	11	11	163	152	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	527	533	163	603	538	16	174			22		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	527	533	163	603	538	16	174			22		
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 %	97	62	99	100	100	100	99			90		
cM capacity (veh/h)	423	402	882	264	400	1063	1403			1575		

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	174	33	163	174
Volume Left	11	11	163	0
Volume Right	11	11	0	22
cSH	417	1403	1575	1700
Volume to Capacity	0.42	0.01	0.10	0.10
Queue Length 95th (ft)	50	1	9	0
Control Delay (s)	19.7	2.6	7.6	0.0
Lane LOS	C	A	A	
Approach Delay (s)	19.7	2.6	3.7	
Approach LOS	C			

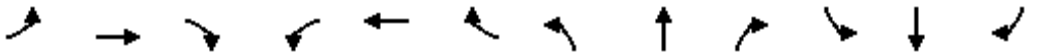
Intersection Summary				
Average Delay	8.7			
Intersection Capacity Utilization	30.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	650	120	0	0	0	0	0	0	230	200	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.91									0.95	
Frt		0.98									1.00	
Flt Protected		1.00									0.97	
Satd. Flow (prot)		4929									3326	
Flt Permitted		1.00									0.97	
Satd. Flow (perm)		4929									3326	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	707	130	0	0	0	0	0	0	250	217	0
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	0	0	83	0
Lane Group Flow (vph)	0	808	0	0	0	0	0	0	0	0	384	0
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	2%	2%	2%	2%	10%	2%
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		42.0									40.0	
Effective Green, g (s)		42.0									40.0	
Actuated g/C Ratio		0.47									0.44	
Clearance Time (s)		4.0									4.0	
Vehicle Extension (s)		3.0									3.0	
Lane Grp Cap (vph)		2300									1478	
v/s Ratio Prot		c0.16										
v/s Ratio Perm											0.12	
v/c Ratio		0.35									0.26	
Uniform Delay, d1		15.3									15.7	
Progression Factor		1.00									0.67	
Incremental Delay, d2		0.4									0.4	
Delay (s)		15.7									10.9	
Level of Service		B									B	
Approach Delay (s)		15.7			0.0			0.0			10.9	
Approach LOS		B			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	34.6%	ICU Level of Service	A
Analysis Period (min)	15		

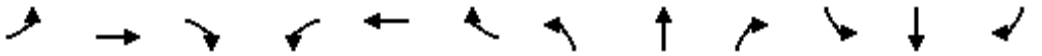
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	280	600	0	0	0	0	0	230	160	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.91						0.95				
Frt		1.00						0.94				
Flt Protected		0.98						1.00				
Satd. Flow (prot)		4975						3115				
Flt Permitted		0.98						1.00				
Satd. Flow (perm)		4975						3115				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	304	652	0	0	0	0	0	250	174	0	0	0
RTOR Reduction (vph)	0	44	0	0	0	0	0	148	0	0	0	0
Lane Group Flow (vph)	0	912	0	0	0	0	0	276	0	0	0	0
Heavy Vehicles (%)	4%	2%	2%	2%	2%	2%	2%	10%	7%	2%	2%	2%
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		68.6						13.4				
Effective Green, g (s)		68.6						13.4				
Actuated g/C Ratio		0.76						0.15				
Clearance Time (s)		4.0						4.0				
Vehicle Extension (s)		3.0						3.0				
Lane Grp Cap (vph)		3792						463				
v/s Ratio Prot								c0.09				
v/s Ratio Perm		0.18										
v/c Ratio		0.24						0.60				
Uniform Delay, d1		3.1						35.8				
Progression Factor		0.69						0.79				
Incremental Delay, d2		0.1						1.2				
Delay (s)		2.3						29.4				
Level of Service		A						C				
Approach Delay (s)		2.3			0.0			29.4			0.0	
Approach LOS		A			A			C			A	

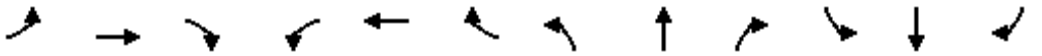
Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	35.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



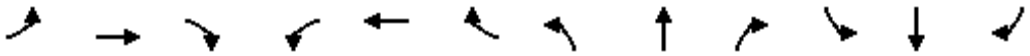
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	270	560	90	40	0	390	0	330	30	40	160	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0		4.0		4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00		1.00		0.95			0.95	
Frt	1.00	0.98		1.00		0.85		0.99			1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00			0.99	
Satd. Flow (prot)	1770	3466		1770		1583		3495			3504	
Flt Permitted	0.95	1.00		0.36		1.00		1.00			0.80	
Satd. Flow (perm)	1770	3466		675		1583		3495			2832	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	609	98	43	0	424	0	359	33	43	174	0
RTOR Reduction (vph)	0	10	0	0	0	99	0	9	0	0	0	0
Lane Group Flow (vph)	293	697	0	43	0	325	0	383	0	0	217	0
Turn Type	Perm	NA		Perm		Perm		NA		Perm	NA	
Protected Phases		2						8			4	
Permitted Phases	2			6		6				4		
Actuated Green, G (s)	62.0	62.0		62.0		62.0		20.0			20.0	
Effective Green, g (s)	62.0	62.0		62.0		62.0		20.0			20.0	
Actuated g/C Ratio	0.69	0.69		0.69		0.69		0.22			0.22	
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)	1219	2387		465		1090		776			629	
v/s Ratio Prot		0.20						c0.11				
v/s Ratio Perm	0.17			0.06		c0.21					0.08	
v/c Ratio	0.24	0.29		0.09		0.30		0.49			0.34	
Uniform Delay, d1	5.2	5.5		4.7		5.5		30.6			29.5	
Progression Factor	0.51	0.48		1.00		1.00		1.00			0.88	
Incremental Delay, d2	0.5	0.3		0.1		0.2		0.5			0.3	
Delay (s)	3.1	2.9		4.7		5.6		31.1			26.3	
Level of Service	A	A		A		A		C			C	
Approach Delay (s)		3.0			5.6			31.1			26.3	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



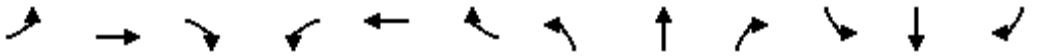
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	210	360	60	50	340	20	70	70	60	120	30	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2	4.2	4.2	4.2			4.2	4.2	4.6	4.6	
Lane Util. Factor	1.00	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	0.99			1.00	0.85	1.00	0.87	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1863	1583	1770	1847			1817	1583	1770	1615	
Flt Permitted	0.31	1.00	1.00	0.33	1.00			0.15	1.00	0.66	1.00	
Satd. Flow (perm)	576	1863	1583	616	1847			282	1583	1230	1615	
Peak-hour factor, PHF	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	219	375	62	54	370	22	76	76	65	130	33	261
RTOR Reduction (vph)	0	0	41	0	3	0	0	0	41	0	223	0
Lane Group Flow (vph)	219	375	21	54	389	0	0	152	24	130	71	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			1			2	
Permitted Phases	4		4	8			1		1	2		
Actuated Green, G (s)	30.0	30.0	30.0	30.0	30.0			33.8	33.8	13.2	13.2	
Effective Green, g (s)	30.0	30.0	30.0	30.0	30.0			33.8	33.8	13.2	13.2	
Actuated g/C Ratio	0.33	0.33	0.33	0.33	0.33			0.38	0.38	0.15	0.15	
Clearance Time (s)	4.2	4.2	4.2	4.2	4.2			4.2	4.2	4.6	4.6	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0			2.0	2.0	3.8	3.8	
Lane Grp Cap (vph)	192	621	527	205	615			105	594	180	236	
v/s Ratio Prot		0.20			0.21						0.04	
v/s Ratio Perm	c0.38		0.01	0.09				c0.54	0.02	c0.11		
v/c Ratio	1.14	0.60	0.04	0.26	0.63			1.45	0.04	0.72	0.30	
Uniform Delay, d1	30.0	25.0	20.3	21.9	25.3			28.1	17.8	36.7	34.3	
Progression Factor	1.00	1.00	1.00	0.74	0.77			1.00	1.00	1.00	1.00	
Incremental Delay, d2	107.9	4.3	0.1	2.7	4.3			246.7	0.0	22.1	3.3	
Delay (s)	137.9	29.4	20.4	19.0	23.8			274.8	17.8	58.7	37.6	
Level of Service	F	C	C	B	C			F	B	E	D	
Approach Delay (s)		64.7			23.2			197.8			44.1	
Approach LOS		E			C			F			D	

Intersection Summary			
HCM 2000 Control Delay	65.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	73.2%	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)	50	550	20	30	130	10	40	500	50	20	270	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.0	4.2		4.0	4.2	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.99		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1853		1770	1843		1770	1837		1770	1772	
Flt Permitted	0.66	1.00		0.21	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1223	1853		394	1843		1770	1837		1770	1772	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	598	22	33	141	11	43	543	54	22	293	141
RTOR Reduction (vph)	0	1	0	0	3	0	0	4	0	0	19	0
Lane Group Flow (vph)	54	619	0	33	149	0	43	593	0	22	415	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		8			8		1	6		5	2	
Permitted Phases	8			8								
Actuated Green, G (s)	41.7	41.7		41.7	41.7		5.3	33.1		2.8	30.6	
Effective Green, g (s)	41.7	41.7		41.7	41.7		5.3	33.1		2.8	30.6	
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.06	0.37		0.03	0.34	
Clearance Time (s)	4.2	4.2		4.2	4.2		4.0	4.2		4.0	4.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	566	858		182	853		104	675		55	602	
v/s Ratio Prot		c0.33			0.08		c0.02	c0.32		0.01	0.23	
v/s Ratio Perm	0.04			0.08								
v/c Ratio	0.10	0.72		0.18	0.18		0.41	0.88		0.40	0.69	
Uniform Delay, d1	13.6	19.5		14.1	14.1		40.9	26.6		42.8	25.6	
Progression Factor	0.92	0.82		1.09	1.10		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	4.9		2.2	0.4		2.7	12.5		4.7	3.3	
Delay (s)	12.8	20.8		17.6	15.9		43.5	39.0		47.5	28.9	
Level of Service	B	C		B	B		D	D		D	C	
Approach Delay (s)		20.2			16.2			39.3			29.8	
Approach LOS		C			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	28.3	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)	12.4
Intersection Capacity Utilization	81.8%	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)	150	330	60	0	80	0	10	160	40	40	150	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.2			4.2			4.2	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.98			1.00			0.97			0.98	
Flt Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1770	1820			1863			1811			1792	
Flt Permitted	0.70	1.00			1.00			0.98			0.86	
Satd. Flow (perm)	1305	1820			1863			1787			1556	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	359	65	0	87	0	11	174	43	43	163	43
RTOR Reduction (vph)	0	5	0	0	0	0	0	12	0	0	11	0
Lane Group Flow (vph)	163	419	0	0	87	0	0	216	0	0	238	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			8			2			2	
Permitted Phases	8			8			2			2		
Actuated Green, G (s)	62.0	62.0			62.0			19.6			19.6	
Effective Green, g (s)	62.0	62.0			62.0			19.6			19.6	
Actuated g/C Ratio	0.69	0.69			0.69			0.22			0.22	
Clearance Time (s)	4.2	4.2			4.2			4.2			4.2	
Vehicle Extension (s)	3.4	3.4			3.4			3.4			3.4	
Lane Grp Cap (vph)	899	1253			1283			389			338	
v/s Ratio Prot		c0.23			0.05							
v/s Ratio Perm	0.12							0.12			c0.15	
v/c Ratio	0.18	0.33			0.07			0.56			0.70	
Uniform Delay, d1	5.0	5.7			4.6			31.3			32.5	
Progression Factor	1.51	1.45			0.97			1.00			1.00	
Incremental Delay, d2	0.3	0.5			0.1			1.9			6.7	
Delay (s)	7.8	8.7			4.5			33.2			39.2	
Level of Service	A	A			A			C			D	
Approach Delay (s)		8.5			4.5			33.2			39.2	
Approach LOS		A			A			C			D	

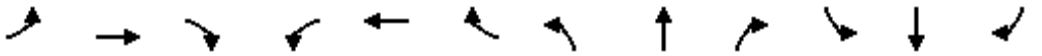
Intersection Summary			
HCM 2000 Control Delay	19.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	270	140	20	10	0	20	20	380	80	10	60	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.0			4.2			4.2	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.98			0.91			0.98			1.00	
Flt Protected	0.95	1.00			0.98			1.00			0.99	
Satd. Flow (prot)	1736	1827			1667			1797			1849	
Flt Permitted	0.74	1.00			0.93			0.99			0.93	
Satd. Flow (perm)	1344	1827			1573			1780			1729	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	152	22	11	0	22	22	413	87	11	65	0
RTOR Reduction (vph)	0	5	0	0	11	0	0	9	0	0	0	0
Lane Group Flow (vph)	293	169	0	0	22	0	0	513	0	0	76	0
Heavy Vehicles (%)	4%	2%	2%	2%	2%	2%	2%	3%	4%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			4	
Permitted Phases	2			6			4			4		
Actuated Green, G (s)	46.8	46.8			47.0			34.8			34.8	
Effective Green, g (s)	46.8	46.8			47.0			34.8			34.8	
Actuated g/C Ratio	0.52	0.52			0.52			0.39			0.39	
Clearance Time (s)	4.2	4.2			4.0			4.2			4.2	
Vehicle Extension (s)	5.0	5.0			3.0			5.0			5.0	
Lane Grp Cap (vph)	698	950			821			688			668	
v/s Ratio Prot		0.09										
v/s Ratio Perm	c0.22				0.01			c0.29			0.04	
v/c Ratio	0.42	0.18			0.03			0.75			0.11	
Uniform Delay, d1	13.3	11.4			10.4			23.8			17.7	
Progression Factor	0.97	1.01			1.00			1.00			1.00	
Incremental Delay, d2	1.8	0.4			0.1			5.3			0.2	
Delay (s)	14.7	11.9			10.5			29.1			17.9	
Level of Service	B	B			B			C			B	
Approach Delay (s)		13.7			10.5			29.1			17.9	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

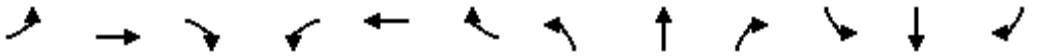
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	340	760	80	60	960	120	140	170	20	100	100	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.1	4.2		4.1	4.2		4.2	4.2		4.2	4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1736	3398		1770	3392		1770	1820		1671	1792	1538
Flt Permitted	0.95	1.00		0.95	1.00		0.67	1.00		0.43	1.00	1.00
Satd. Flow (perm)	1736	3398		1770	3392		1241	1820		761	1792	1538
Peak-hour factor, PHF	1.00	1.00	1.00	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	340	760	80	65	1043	130	152	185	22	109	109	261
RTOR Reduction (vph)	0	8	0	0	10	0	0	5	0	0	0	212
Lane Group Flow (vph)	340	832	0	65	1163	0	152	202	0	109	109	49
Heavy Vehicles (%)	4%	5%	2%	2%	4%	10%	2%	2%	9%	8%	6%	5%
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	Perm
Protected Phases	3	8		7	4			6			2	
Permitted Phases							6			2		2
Actuated Green, G (s)	17.3	55.4		5.1	43.2		17.0	17.0		17.0	17.0	17.0
Effective Green, g (s)	17.3	55.4		5.1	43.2		17.0	17.0		17.0	17.0	17.0
Actuated g/C Ratio	0.19	0.62		0.06	0.48		0.19	0.19		0.19	0.19	0.19
Clearance Time (s)	4.1	4.2		4.1	4.2		4.2	4.2		4.2	4.2	4.2
Vehicle Extension (s)	2.0	6.0		2.0	6.0		4.0	4.0		4.0	4.0	4.0
Lane Grp Cap (vph)	333	2091		100	1628		234	343		143	338	290
v/s Ratio Prot	c0.20	0.24		0.04	c0.34			0.11			0.06	
v/s Ratio Perm							0.12			c0.14		0.03
v/c Ratio	1.02	0.40		0.65	0.71		0.65	0.59		0.76	0.32	0.17
Uniform Delay, d1	36.4	8.8		41.6	18.5		33.7	33.3		34.6	31.5	30.6
Progression Factor	1.00	1.00		0.65	1.05		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	54.8	0.6		7.8	1.9		6.8	3.1		22.2	0.8	0.4
Delay (s)	91.1	9.4		35.0	21.4		40.5	36.4		56.8	32.3	31.0
Level of Service	F	A		C	C		D	D		E	C	C
Approach Delay (s)		32.9			22.1			38.1			37.1	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	30.0	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)	12.5
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		

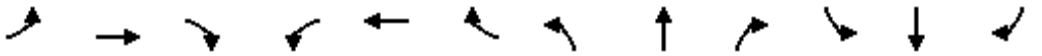
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	670	230	150	1000	110	240	100	170	150	120	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.99		1.00	0.91		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3379		1770	3368		1770	1687		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	3379		1770	3368		1770	1687		1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	728	250	163	1087	120	261	109	185	163	130	33
RTOR Reduction (vph)	0	37	0	0	8	0	0	75	0	0	0	29
Lane Group Flow (vph)	22	941	0	163	1199	0	261	220	0	163	130	4
Heavy Vehicles (%)	2%	3%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	1.6	31.1		13.4	42.9		17.5	15.5		13.6	11.6	11.6
Effective Green, g (s)	1.6	31.1		13.4	42.9		17.5	15.5		13.6	11.6	11.6
Actuated g/C Ratio	0.02	0.35		0.15	0.48		0.19	0.17		0.15	0.13	0.13
Clearance Time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	4.2
Vehicle Extension (s)	2.0	6.0		2.0	6.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	31	1167		263	1605		344	290		267	240	204
v/s Ratio Prot	0.01	c0.28		0.09	c0.36		c0.15	c0.13		0.09	0.07	
v/s Ratio Perm												0.00
v/c Ratio	0.71	0.81		0.62	0.75		0.76	0.76		0.61	0.54	0.02
Uniform Delay, d1	44.0	26.7		35.9	19.1		34.3	35.5		35.7	36.7	34.2
Progression Factor	1.19	0.72		0.57	0.24		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	44.0	5.7		2.7	2.9		8.3	9.6		2.9	1.3	0.0
Delay (s)	96.4	24.9		23.3	7.5		42.5	45.1		38.6	38.0	34.3
Level of Service	F	C		C	A		D	D		D	D	C
Approach Delay (s)		26.5			9.4			43.9			37.9	
Approach LOS		C			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	23.4	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)	16.4
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		

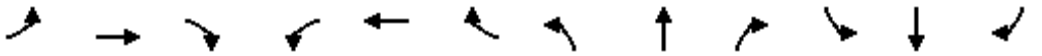
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	870	120	510	1050	0	0	0	0	320	190	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		5.2	5.2					4.7	4.7	4.7
Lane Util. Factor		0.95		1.00	0.95					1.00	1.00	1.00
Frt		0.98		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (prot)		3445		1770	3406					1770	1863	1583
Flt Permitted		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (perm)		3445		1770	3406					1770	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	946	130	554	1141	0	0	0	0	348	207	228
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	0	0	0	112
Lane Group Flow (vph)	0	1064	0	554	1141	0	0	0	0	348	207	116
Heavy Vehicles (%)	2%	3%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Actuated Green, G (s)		32.8		26.8	64.8					15.3	15.3	15.3
Effective Green, g (s)		32.8		26.8	64.8					15.3	15.3	15.3
Actuated g/C Ratio		0.36		0.30	0.72					0.17	0.17	0.17
Clearance Time (s)		5.2		5.2	5.2					4.7	4.7	4.7
Vehicle Extension (s)		0.2		2.0	0.2					6.2	6.2	6.2
Lane Grp Cap (vph)		1255		527	2452					300	316	269
v/s Ratio Prot		c0.31		c0.31	0.34						0.11	
v/s Ratio Perm										c0.20		0.07
v/c Ratio		0.85		1.05	0.47					1.16	0.66	0.43
Uniform Delay, d1		26.3		31.6	5.3					37.4	34.9	33.5
Progression Factor		0.50		1.06	0.36					0.94	0.93	0.85
Incremental Delay, d2		5.1		34.6	0.2					102.4	7.8	3.3
Delay (s)		18.4		68.2	2.0					137.5	40.3	31.6
Level of Service		B		E	A					F	D	C
Approach Delay (s)		18.4			23.7			0.0			81.0	
Approach LOS		B			C			A			F	

Intersection Summary			
HCM 2000 Control Delay	34.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		

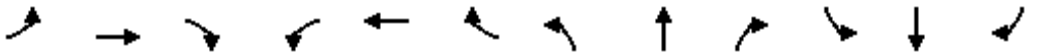
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	310	880	0	0	1440	510	120	410	340	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.7	5.2			5.2	5.2		5.4	5.4			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.95	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)	1770	3505			3406	1583		3500	1583			
Flt Permitted	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (perm)	1770	3505			3406	1583		3500	1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	926	0	0	1565	554	130	446	370	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	94	0	0	77	0	0	0
Lane Group Flow (vph)	326	926	0	0	1565	460	0	576	293	0	0	0
Heavy Vehicles (%)	2%	3%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	11.3	55.1			40.1	40.1		24.3	24.3			
Effective Green, g (s)	11.3	55.1			40.1	40.1		24.3	24.3			
Actuated g/C Ratio	0.13	0.61			0.45	0.45		0.27	0.27			
Clearance Time (s)	3.7	5.2			5.2	5.2		5.4	5.4			
Vehicle Extension (s)	2.0	0.2			0.2	0.2		5.0	5.0			
Lane Grp Cap (vph)	222	2145			1517	705		945	427			
v/s Ratio Prot	c0.18	0.26			c0.46							
v/s Ratio Perm						0.29		0.16	c0.18			
v/c Ratio	1.47	0.43			1.03	0.65		0.61	0.69			
Uniform Delay, d1	39.4	9.2			24.9	19.5		28.7	29.4			
Progression Factor	0.77	0.12			1.00	1.00		1.00	1.00			
Incremental Delay, d2	219.6	0.2			31.6	4.6		1.6	5.8			
Delay (s)	249.8	1.4			56.6	24.1		30.4	35.2			
Level of Service	F	A			E	C		C	D			
Approach Delay (s)		66.1			48.1			32.3			0.0	
Approach LOS		E			D			C			A	

Intersection Summary			
HCM 2000 Control Delay	49.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.3
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		

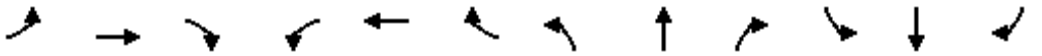
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	180	880	160	30	1530	30	170	80	20	30	70	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frt	1.00	0.98		1.00	1.00			0.99			0.89	
Flt Protected	0.95	1.00		0.95	1.00			0.97			1.00	
Satd. Flow (prot)	1770	3419		1770	3333			3291			2967	
Flt Permitted	0.10	1.00		0.22	1.00			0.60			0.90	
Satd. Flow (perm)	182	3419		409	3333			2042			2676	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	957	174	33	1663	33	185	87	22	33	76	272
RTOR Reduction (vph)	0	12	0	0	1	0	0	6	0	0	31	0
Lane Group Flow (vph)	196	1119	0	33	1695	0	0	288	0	0	350	0
Heavy Vehicles (%)	2%	3%	4%	2%	8%	8%	7%	2%	2%	10%	8%	8%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	72.7	72.7		72.7	72.7			18.9			18.9	
Effective Green, g (s)	72.7	72.7		72.7	72.7			18.9			18.9	
Actuated g/C Ratio	0.73	0.73		0.73	0.73			0.19			0.19	
Clearance Time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Vehicle Extension (s)	5.0	5.0		5.0	5.0			2.0			2.0	
Lane Grp Cap (vph)	132	2485		297	2423			385			505	
v/s Ratio Prot		0.33			0.51							
v/s Ratio Perm	c1.08			0.08				c0.14			0.13	
v/c Ratio	1.48	0.45		0.11	0.70			1.46dl			0.85dr	
Uniform Delay, d1	13.6	5.5		4.1	7.6			38.3			37.8	
Progression Factor	1.00	1.00		0.13	0.39			1.00			1.00	
Incremental Delay, d2	254.0	0.6		0.1	0.2			6.8			3.3	
Delay (s)	267.7	6.1		0.6	3.1			45.1			41.2	
Level of Service	F	A		A	A			D			D	
Approach Delay (s)		44.8			3.0			45.1			41.2	
Approach LOS		D			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	97.5%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

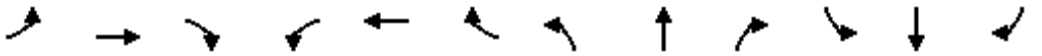


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	130	680	70	160	410	90	130	430	100	180	210	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.1	4.2		4.1	4.2		4.1	4.2		4.1	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	0.97		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3490		1770	3444		1770	1810		1770	1761	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3490		1770	3444		1770	1810		1770	1761	
Peak-hour factor, PHF	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	135	708	73	174	446	98	141	467	109	196	228	130
RTOR Reduction (vph)	0	8	0	0	19	0	0	9	0	0	20	0
Lane Group Flow (vph)	135	773	0	174	525	0	141	567	0	196	338	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	9.7	26.4		11.3	28.0		12.0	32.8		12.9	33.7	
Effective Green, g (s)	9.7	26.4		11.3	28.0		12.0	32.8		12.9	33.7	
Actuated g/C Ratio	0.10	0.26		0.11	0.28		0.12	0.33		0.13	0.34	
Clearance Time (s)	4.1	4.2		4.1	4.2		4.1	4.2		4.1	4.2	
Vehicle Extension (s)	3.0	5.0		3.0	5.0		3.0	5.0		3.0	5.0	
Lane Grp Cap (vph)	171	921		200	964		212	593		228	593	
v/s Ratio Prot	0.08	c0.22		c0.10	0.15		0.08	c0.31		c0.11	0.19	
v/s Ratio Perm												
v/c Ratio	0.79	0.84		0.87	0.54		0.67	0.96		0.86	0.57	
Uniform Delay, d1	44.2	34.8		43.6	30.6		42.1	32.9		42.7	27.2	
Progression Factor	0.73	0.63		0.89	0.90		1.00	1.00		1.00	1.00	
Incremental Delay, d2	11.8	4.9		30.2	2.2		7.6	27.7		26.0	3.9	
Delay (s)	43.9	27.0		69.0	29.8		49.7	60.6		68.7	31.2	
Level of Service	D	C		E	C		D	E		E	C	
Approach Delay (s)		29.4			39.3			58.4			44.4	
Approach LOS		C			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	41.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.6
Intersection Capacity Utilization	82.4%	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)	50	640	130	60	510	0	60	90	60	210	200	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.0	4.0		4.2	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.94		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3450		1770	3539		1770	1751		1770	1817	
Flt Permitted	0.45	1.00		0.30	1.00		0.52	1.00		0.65	1.00	
Satd. Flow (perm)	836	3450		558	3539		967	1751		1218	1817	
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	696	141	64	543	0	65	98	65	228	217	43
RTOR Reduction (vph)	0	34	0	0	0	0	0	47	0	0	14	0
Lane Group Flow (vph)	54	803	0	64	543	0	65	116	0	228	246	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			8			4	
Permitted Phases	2			2			8			4		
Actuated Green, G (s)	27.6	27.6		27.6	27.6		14.2	14.2		14.0	14.0	
Effective Green, g (s)	27.6	27.6		27.6	27.6		14.2	14.2		14.0	14.0	
Actuated g/C Ratio	0.55	0.55		0.55	0.55		0.28	0.28		0.28	0.28	
Clearance Time (s)	4.2	4.2		4.2	4.2		4.0	4.0		4.2	4.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	461	1904		308	1953		274	497		341	508	
v/s Ratio Prot		c0.23			0.15			0.07			0.14	
v/s Ratio Perm	0.06			0.11			0.07			c0.19		
v/c Ratio	0.12	0.42		0.21	0.28		0.24	0.23		0.67	0.48	
Uniform Delay, d1	5.4	6.5		5.7	5.9		13.7	13.7		15.9	15.0	
Progression Factor	0.21	0.16		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	0.3		1.5	0.4		0.4	0.2		4.9	0.7	
Delay (s)	1.4	1.4		7.2	6.3		14.2	14.0		20.9	15.7	
Level of Service	A	A		A	A		B	B		C	B	
Approach Delay (s)		1.4			6.4			14.0			18.1	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	7.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



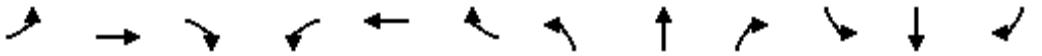
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	930	60	60	680	40	120	120	90	80	130	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1641	3508		1770	3510		1770	1743		1719	1743	1482
Flt Permitted	0.32	1.00		0.19	1.00		0.67	1.00		0.57	1.00	1.00
Satd. Flow (perm)	545	3508		348	3510		1243	1743		1035	1743	1482
Peak-hour factor, PHF	0.92	0.92	0.95	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	1011	63	63	716	42	130	130	98	87	141	43
RTOR Reduction (vph)	0	7	0	0	7	0	0	45	0	0	0	28
Lane Group Flow (vph)	33	1067	0	63	751	0	130	183	0	87	141	15
Heavy Vehicles (%)	10%	2%	2%	2%	2%	2%	2%	2%	2%	5%	9%	9%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		2
Actuated Green, G (s)	30.8	30.8		30.8	30.8		20.8	20.8		20.8	20.8	20.8
Effective Green, g (s)	30.8	30.8		30.8	30.8		20.8	20.8		20.8	20.8	20.8
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.35	0.35		0.35	0.35	0.35
Clearance Time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Grp Cap (vph)	279	1800		178	1801		430	604		358	604	513
v/s Ratio Prot		c0.30			0.21			c0.10			0.08	
v/s Ratio Perm	0.06			0.18			0.10			0.08		0.01
v/c Ratio	0.12	0.59		0.35	0.42		0.30	0.30		0.24	0.23	0.03
Uniform Delay, d1	7.6	10.2		8.7	9.0		14.3	14.3		14.0	13.9	12.9
Progression Factor	1.00	1.00		0.53	0.54		1.36	1.56		1.00	1.00	1.00
Incremental Delay, d2	0.9	1.4		5.0	0.7		1.4	1.0		1.6	0.9	0.1
Delay (s)	8.4	11.7		9.6	5.5		20.9	23.3		15.6	14.8	13.0
Level of Service	A	B		A	A		C	C		B	B	B
Approach Delay (s)		11.6			5.8			22.4			14.8	
Approach LOS		B			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	90.4%	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)	50	1110	10	10	650	100	50	420	100	70	20	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.98		1.00	0.97		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3535		1770	3468		1770	1809		1770	1770	
Flt Permitted	0.27	1.00		0.14	1.00		0.74	1.00		0.22	1.00	
Satd. Flow (perm)	505	3535		268	3468		1370	1809		403	1770	
Peak-hour factor, PHF	0.97	0.97	0.97	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	1144	10	11	707	109	54	457	109	76	22	11
RTOR Reduction (vph)	0	1	0	0	20	0	0	14	0	0	7	0
Lane Group Flow (vph)	52	1153	0	11	796	0	54	552	0	76	26	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			6	
Permitted Phases	4			4			2			6		
Actuated Green, G (s)	27.8	27.8		27.8	27.8		24.0	24.0		24.0	24.0	
Effective Green, g (s)	27.8	27.8		27.8	27.8		24.0	24.0		24.0	24.0	
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.40	0.40		0.40	0.40	
Clearance Time (s)	4.2	4.2		4.2	4.2		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	233	1637		124	1606		548	723		161	708	
v/s Ratio Prot		c0.33			0.23			c0.30			0.01	
v/s Ratio Perm	0.10			0.04			0.04			0.19		
v/c Ratio	0.22	0.70		0.09	0.50		0.10	0.76		0.47	0.04	
Uniform Delay, d1	9.6	12.8		9.0	11.2		11.2	15.5		13.3	11.0	
Progression Factor	0.58	0.49		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.9	2.2		1.4	1.1		0.4	7.5		9.6	0.1	
Delay (s)	7.5	8.5		10.4	12.3		11.6	23.0		22.9	11.1	
Level of Service	A	A		B	B		B	C		C	B	
Approach Delay (s)		8.4			12.3			22.0			19.3	
Approach LOS		A			B			C			B	

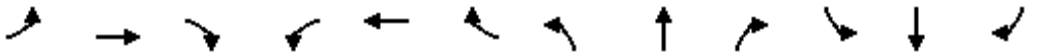
Intersection Summary			
HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	83.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



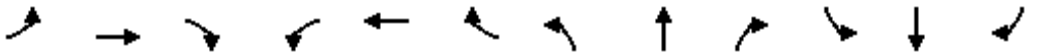
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	120	20	470	30	200	10	460	840	360	350	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6		4.6	4.6	4.6	4.0	4.6	4.6	4.0	4.6	4.6
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1822		1681	1695	1583	1770	1863	1583	1770	3539	1583
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1822		1681	1695	1583	1770	1863	1583	1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	130	22	511	33	217	11	500	913	391	380	33
RTOR Reduction (vph)	0	4	0	0	0	170	0	0	124	0	0	16
Lane Group Flow (vph)	43	148	0	271	273	47	11	500	789	391	380	17
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	8	8		4	4		1	6	4	5	2	
Permitted Phases						4			6			2
Actuated Green, G (s)	16.7	16.7		29.5	29.5	29.5	1.5	42.3	71.8	31.1	71.9	71.9
Effective Green, g (s)	16.7	16.7		29.5	29.5	29.5	1.5	42.3	71.8	31.1	71.9	71.9
Actuated g/C Ratio	0.12	0.12		0.21	0.21	0.21	0.01	0.31	0.52	0.23	0.52	0.52
Clearance Time (s)	4.6	4.6		4.6	4.6	4.6	4.0	4.6	4.6	4.0	4.6	4.6
Vehicle Extension (s)	3.0	3.0		3.5	3.5	3.5	2.0	4.8	3.5	3.0	4.8	4.8
Lane Grp Cap (vph)	215	221		360	363	339	19	573	880	400	1851	828
v/s Ratio Prot	0.02	c0.08		0.16	0.16		0.01	0.27	c0.19	c0.22	0.11	
v/s Ratio Perm						0.03			0.31			0.01
v/c Ratio	0.20	0.67		0.75	0.75	0.14	0.58	0.87	0.90	0.98	0.21	0.02
Uniform Delay, d1	54.3	57.7		50.5	50.5	43.7	67.6	45.0	29.5	52.8	17.5	15.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	7.4		8.9	8.8	0.2	23.8	14.7	12.0	38.6	0.1	0.0
Delay (s)	54.8	65.1		59.4	59.3	43.9	91.5	59.7	41.4	91.4	17.6	15.8
Level of Service	D	E		E	E	D	F	E	D	F	B	B
Approach Delay (s)		62.8			54.9			48.2			53.4	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	52.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	137.4	Sum of lost time (s)	17.8
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



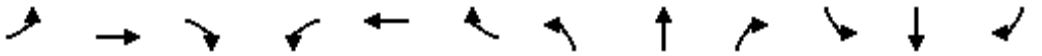
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	440	120	40	420	160	70	310	70	180	250	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.96		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3426		1770	3393		1770	1811		1770	1863	1583
Flt Permitted	0.30	1.00		0.31	1.00		0.56	1.00		0.44	1.00	1.00
Satd. Flow (perm)	552	3426		579	3393		1042	1811		821	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	478	130	43	457	174	76	337	76	196	272	65
RTOR Reduction (vph)	0	27	0	0	44	0	0	9	0	0	0	29
Lane Group Flow (vph)	54	581	0	43	587	0	76	404	0	196	272	36
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	31.8	31.8		31.8	31.8		49.5	49.5		49.5	49.5	49.5
Effective Green, g (s)	31.8	31.8		31.8	31.8		49.5	49.5		49.5	49.5	49.5
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.55	0.55		0.55	0.55	0.55
Clearance Time (s)	4.2	4.2		4.2	4.2		4.5	4.5		4.5	4.5	4.5
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)	195	1210		204	1198		573	996		451	1024	870
v/s Ratio Prot		0.17			c0.17			0.22			0.15	
v/s Ratio Perm	0.10			0.07			0.07			c0.24		0.02
v/c Ratio	0.28	0.48		0.21	0.49		0.13	0.41		0.43	0.27	0.04
Uniform Delay, d1	20.9	22.7		20.3	22.8		9.8	11.7		12.0	10.7	9.3
Progression Factor	1.19	1.17		0.66	0.56		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.4	1.3		1.8	1.1		0.5	1.2		3.0	0.6	0.1
Delay (s)	28.2	27.9		15.2	13.8		10.3	13.0		15.0	11.3	9.4
Level of Service	C	C		B	B		B	B		B	B	A
Approach Delay (s)		27.9			13.9			12.5			12.4	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	17.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.7
Intersection Capacity Utilization	92.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



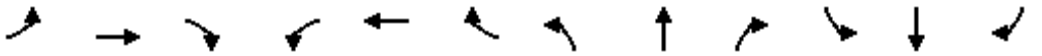
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	690	30	60	600	170	60	360	80	140	390	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3517		1770	3422		1770	1812		1770	1831	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3517		1770	3422		1770	1812		1770	1831	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.96	0.96	0.96
Adj. Flow (vph)	54	750	33	65	652	185	65	391	87	146	406	52
RTOR Reduction (vph)	0	3	0	0	28	0	0	9	0	0	5	0
Lane Group Flow (vph)	54	780	0	65	809	0	65	469	0	146	453	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	3.2	31.8		4.8	33.4		4.8	26.6		10.4	32.2	
Effective Green, g (s)	3.2	31.8		4.8	33.4		4.8	26.6		10.4	32.2	
Actuated g/C Ratio	0.04	0.35		0.05	0.37		0.05	0.30		0.12	0.36	
Clearance Time (s)	4.0	4.2		4.0	4.2		4.0	4.2		4.0	4.2	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	5.0		2.0	5.0	
Lane Grp Cap (vph)	62	1242		94	1269		94	535		204	655	
v/s Ratio Prot	0.03	c0.22		0.04	c0.24		0.04	c0.26		0.08	c0.25	
v/s Ratio Perm												
v/c Ratio	0.87	0.63		0.69	0.64		0.69	0.88		0.72	0.69	
Uniform Delay, d1	43.2	24.2		41.9	23.3		41.9	30.1		38.4	24.7	
Progression Factor	1.05	1.60		0.84	0.72		1.00	1.00		1.00	1.00	
Incremental Delay, d2	57.5	1.8		15.8	2.4		16.2	16.0		9.5	4.0	
Delay (s)	103.0	40.6		50.8	19.1		58.1	46.1		47.9	28.7	
Level of Service	F	D		D	B		E	D		D	C	
Approach Delay (s)		44.6			21.4			47.6			33.3	
Approach LOS		D			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	35.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.4
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



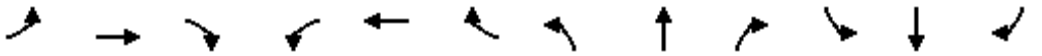
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	150	920	50	70	540	20	20	20	0	110	280	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	1.00		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3512		1770	3520		1770	1863		1770	1784	
Flt Permitted	0.39	1.00		0.20	1.00		0.29	1.00		0.74	1.00	
Satd. Flow (perm)	717	3512		368	3520		547	1863		1384	1784	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	1000	54	76	587	22	22	22	0	120	304	120
RTOR Reduction (vph)	0	5	0	0	3	0	0	0	0	0	16	0
Lane Group Flow (vph)	163	1050	0	76	606	0	22	22	0	120	408	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	49.5	49.5		49.5	49.5		31.5	31.5		31.5	31.5	
Effective Green, g (s)	49.5	49.5		49.5	49.5		31.5	31.5		31.5	31.5	
Actuated g/C Ratio	0.55	0.55		0.55	0.55		0.35	0.35		0.35	0.35	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	394	1931		202	1936		191	652		484	624	
v/s Ratio Prot		c0.30			0.17			0.01			c0.23	
v/s Ratio Perm	0.23			0.21			0.04			0.09		
v/c Ratio	0.41	0.54		0.38	0.31		0.12	0.03		0.25	0.65	
Uniform Delay, d1	11.8	13.0		11.5	11.0		19.8	19.2		20.8	24.7	
Progression Factor	0.30	0.36		1.00	1.00		0.95	0.94		1.00	1.00	
Incremental Delay, d2	2.8	1.0		5.3	0.4		1.2	0.1		1.2	5.3	
Delay (s)	6.3	5.7		16.8	11.4		20.0	18.2		22.0	29.9	
Level of Service	A	A		B	B		C	B		C	C	
Approach Delay (s)		5.7			12.0			19.1			28.2	
Approach LOS		A			B			B			C	

Intersection Summary			
HCM 2000 Control Delay	12.6	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)	9.0
Intersection Capacity Utilization	81.4%	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)	50	1000	20	30	540	30	50	220	220	120	210	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.2			4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	1.00
Satd. Flow (prot)	1736	3430		1770	3511			1741			1823	1468
Flt Permitted	0.38	1.00		0.16	1.00			0.93			0.60	1.00
Satd. Flow (perm)	692	3430		303	3511			1631			1108	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	1087	22	33	587	33	54	239	239	130	228	54
RTOR Reduction (vph)	0	3	0	0	7	0	0	33	0	0	0	34
Lane Group Flow (vph)	54	1106	0	33	613	0	0	499	0	0	358	20
Heavy Vehicles (%)	4%	5%	2%	2%	2%	2%	2%	2%	2%	3%	2%	10%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	29.0	29.0		29.0	29.0			22.6			22.6	22.6
Effective Green, g (s)	29.0	29.0		29.0	29.0			22.6			22.6	22.6
Actuated g/C Ratio	0.48	0.48		0.48	0.48			0.38			0.38	0.38
Clearance Time (s)	4.2	4.2		4.2	4.2			4.2			4.2	4.2
Lane Grp Cap (vph)	334	1657		146	1696			614			417	552
v/s Ratio Prot		c0.32			0.17							
v/s Ratio Perm	0.08			0.11				0.31			c0.32	0.01
v/c Ratio	0.16	0.67		0.23	0.36			0.81			0.86	0.04
Uniform Delay, d1	8.7	11.8		9.0	9.7			16.8			17.2	11.8
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.22	1.72
Incremental Delay, d2	1.0	2.2		3.6	0.6			11.2			19.7	0.1
Delay (s)	9.7	14.0		12.6	10.3			28.0			40.7	20.5
Level of Service	A	B		B	B			C			D	C
Approach Delay (s)		13.8			10.4			28.0			38.1	
Approach LOS		B			B			C			D	

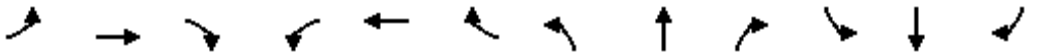
Intersection Summary			
HCM 2000 Control Delay	19.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	98.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	1310	10	10	500	40	40	260	120	60	20	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2	4.2	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93	
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	3435		1770	3539	1583	1770	1863	1583	1770	1723	
Flt Permitted	0.42	1.00		0.10	1.00	1.00	0.73	1.00	1.00	0.44	1.00	
Satd. Flow (perm)	791	3435		193	3539	1583	1357	1863	1583	822	1723	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	1424	11	11	543	43	43	283	130	65	22	22
RTOR Reduction (vph)	0	0	0	0	0	18	0	0	30	0	15	0
Lane Group Flow (vph)	22	1435	0	11	543	25	43	283	100	65	29	0
Heavy Vehicles (%)	2%	5%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		8			4			6			6	
Permitted Phases	8			4		4	6		6	6		
Actuated Green, G (s)	52.3	52.3		52.3	52.3	52.3	29.5	29.5	29.5	29.5	29.5	
Effective Green, g (s)	52.3	52.3		52.3	52.3	52.3	29.5	29.5	29.5	29.5	29.5	
Actuated g/C Ratio	0.58	0.58		0.58	0.58	0.58	0.33	0.33	0.33	0.33	0.33	
Clearance Time (s)	4.2	4.2		4.2	4.2	4.2	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	5.0	5.0		5.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	459	1996		112	2056	919	444	610	518	269	564	
v/s Ratio Prot		c0.42			0.15			c0.15			0.02	
v/s Ratio Perm	0.03			0.06		0.02	0.03		0.06	0.08		
v/c Ratio	0.05	0.72		0.10	0.26	0.03	0.10	0.46	0.19	0.24	0.05	
Uniform Delay, d1	8.1	13.6		8.4	9.3	8.0	21.0	24.0	21.7	22.1	20.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.13	1.16	1.22	1.00	1.00	
Incremental Delay, d2	0.1	1.6		0.8	0.1	0.0	0.4	2.5	0.8	2.1	0.2	
Delay (s)	8.2	15.1		9.2	9.5	8.0	24.1	30.3	27.3	24.2	20.9	
Level of Service	A	B		A	A	A	C	C	C	C	C	
Approach Delay (s)		15.0			9.4			28.8			22.9	
Approach LOS		B			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	16.5	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)	8.2
Intersection Capacity Utilization	66.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

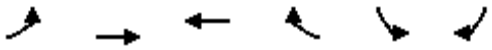


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	1210	90	220	620	70	0	0	0	130	220	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6		4.6	4.6						4.6	4.6
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frt	1.00	0.99		1.00	0.98						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.98	1.00
Satd. Flow (prot)	1770	3502		1770	3485						1829	1583
Flt Permitted	0.34	1.00		0.13	1.00						0.98	1.00
Satd. Flow (perm)	628	3502		240	3485						1829	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	1287	96	239	674	76	0	0	0	141	239	33
RTOR Reduction (vph)	0	5	0	0	8	0	0	0	0	0	0	17
Lane Group Flow (vph)	43	1378	0	239	742	0	0	0	0	0	380	16
Turn Type	Perm	NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases	2			6						4		4
Actuated Green, G (s)	45.4	45.4		45.4	45.4						20.4	20.4
Effective Green, g (s)	45.4	45.4		45.4	45.4						20.4	20.4
Actuated g/C Ratio	0.61	0.61		0.61	0.61						0.27	0.27
Clearance Time (s)	4.6	4.6		4.6	4.6						4.6	4.6
Vehicle Extension (s)	4.1	4.1		4.1	4.1						0.2	0.2
Lane Grp Cap (vph)	380	2119		145	2109						497	430
v/s Ratio Prot		0.39			0.21							
v/s Ratio Perm	0.07			c1.00							0.21	0.01
v/c Ratio	0.11	0.65		1.65	0.35						0.76	0.04
Uniform Delay, d1	6.3	9.6		14.8	7.4						25.1	20.1
Progression Factor	1.00	1.00		0.91	0.68						1.00	1.00
Incremental Delay, d2	0.6	1.6		319.8	0.5						6.2	0.0
Delay (s)	6.9	11.2		333.3	5.5						31.3	20.1
Level of Service	A	B		F	A						C	C
Approach Delay (s)		11.1			84.7			0.0			30.4	
Approach LOS		B			F			A			C	

Intersection Summary			
HCM 2000 Control Delay	39.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.37		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	78.8%	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	1250	10	0	270	0	0	0	0	570	360	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.1			4.1					4.6	4.6	3.6
Lane Util. Factor		0.95			0.95					0.91	0.91	1.00
Frt		1.00			1.00					1.00	1.00	0.85
Flt Protected		1.00			1.00					0.95	0.98	1.00
Satd. Flow (prot)		3535			3539					1610	3319	1583
Flt Permitted		1.00			1.00					0.95	0.98	1.00
Satd. Flow (perm)		3535			3539					1610	3319	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1359	11	0	293	0	0	0	0	620	391	435
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	314
Lane Group Flow (vph)	0	1370	0	0	293	0	0	0	0	329	682	121
Turn Type		NA			NA					Split	NA	custom
Protected Phases		2			6					4	4	
Permitted Phases												7
Actuated Green, G (s)		37.7			37.7					28.6	28.6	20.9
Effective Green, g (s)		37.7			37.7					28.6	28.6	20.9
Actuated g/C Ratio		0.50			0.50					0.38	0.38	0.28
Clearance Time (s)		4.1			4.1					4.6	4.6	3.6
Vehicle Extension (s)		4.1			3.5					4.0	4.0	4.0
Lane Grp Cap (vph)		1776			1778					613	1265	441
v/s Ratio Prot		c0.39			0.08					0.20	c0.21	
v/s Ratio Perm												0.08
v/c Ratio		0.77			0.16					0.54	0.54	0.27
Uniform Delay, d1		15.1			10.1					18.0	18.1	21.1
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		3.3			0.2					1.2	0.6	0.5
Delay (s)		18.5			10.3					19.2	18.6	21.6
Level of Service		B			B					B	B	C
Approach Delay (s)		18.5			10.3			0.0			19.7	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	11.4
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



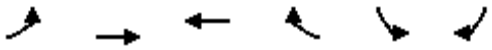
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱↱
Volume (vph)	0	1340	540	0	0	370
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.1	4.1			4.6
Lane Util. Factor		0.95	0.95			0.88
Frt		1.00	1.00			0.85
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		3539	3539			2787
Flt Permitted		1.00	1.00			1.00
Satd. Flow (perm)		3539	3539			2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1457	587	0	0	402
RTOR Reduction (vph)	0	0	0	0	0	136
Lane Group Flow (vph)	0	1457	587	0	0	266
Turn Type		NA	NA			Prot
Protected Phases		2 8	6			4
Permitted Phases						
Actuated Green, G (s)		75.0	42.6			23.7
Effective Green, g (s)		75.0	42.6			23.7
Actuated g/C Ratio		1.00	0.57			0.32
Clearance Time (s)			4.1			4.6
Vehicle Extension (s)			3.0			4.0
Lane Grp Cap (vph)		3539	2010			880
v/s Ratio Prot		c0.41	0.17			0.10
v/s Ratio Perm						
v/c Ratio		0.41	0.29			0.30
Uniform Delay, d1		0.0	8.4			19.4
Progression Factor		1.00	1.00			0.05
Incremental Delay, d2		0.1	0.4			0.2
Delay (s)		0.1	8.8			1.2
Level of Service		A	A			A
Approach Delay (s)		0.1	8.8		1.2	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	2.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.3
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



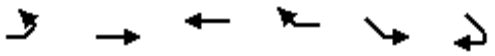
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	350	990	0	410	130	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.1	4.0		4.1	4.1	4.1
Lane Util. Factor	0.91	0.91		0.95	1.00	1.00
Frt	0.91	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3092	1441		3539	1770	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3092	1441		3539	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	380	1076	0	446	141	370
RTOR Reduction (vph)	324	0	0	0	0	160
Lane Group Flow (vph)	594	538	0	446	141	210
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	8			8	6	
Permitted Phases		Free				6
Actuated Green, G (s)	29.8	75.0		29.8	37.0	37.0
Effective Green, g (s)	29.8	75.0		29.8	37.0	37.0
Actuated g/C Ratio	0.40	1.00		0.40	0.49	0.49
Clearance Time (s)	4.1			4.1	4.1	4.1
Vehicle Extension (s)	2.0			2.0	3.0	3.0
Lane Grp Cap (vph)	1228	1441		1406	873	780
v/s Ratio Prot	c0.19			0.13	0.08	
v/s Ratio Perm		c0.37				0.13
v/c Ratio	0.48	0.37		0.32	0.16	0.27
Uniform Delay, d1	16.9	0.0		15.6	10.5	11.1
Progression Factor	1.00	1.00		0.67	1.00	1.00
Incremental Delay, d2	0.1	0.7		0.0	0.1	0.2
Delay (s)	17.0	0.7		10.4	10.5	11.3
Level of Service	B	A		B	B	B
Approach Delay (s)	11.0			10.4	11.1	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	11.9
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



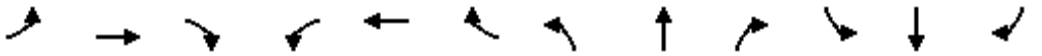
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	1030	790	270	670	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.1	4.0	4.1	4.0		
Lane Util. Factor	1.00	0.95	0.95	1.00		
Frt	1.00	1.00	1.00	0.85		
Flt Protected	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	1770	3539	3539	1583		
Flt Permitted	0.95	1.00	1.00	1.00		
Satd. Flow (perm)	1770	3539	3539	1583		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1120	859	293	728	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	1120	859	293	728	0	0
Turn Type	Prot	NA	NA	Free		
Protected Phases	2 3	Free	4			
Permitted Phases				Free		
Actuated Green, G (s)	46.1	75.0	21.1	75.0		
Effective Green, g (s)	46.1	75.0	21.1	75.0		
Actuated g/C Ratio	0.61	1.00	0.28	1.00		
Clearance Time (s)			4.1			
Vehicle Extension (s)			4.1			
Lane Grp Cap (vph)	1087	3539	995	1583		
v/s Ratio Prot	c0.63	0.24	0.08			
v/s Ratio Perm				c0.46		
v/c Ratio	1.03	0.24	0.29	0.46		
Uniform Delay, d1	14.4	0.0	21.1	0.0		
Progression Factor	1.00	1.00	0.86	1.00		
Incremental Delay, d2	35.4	0.2	0.2	0.8		
Delay (s)	49.8	0.2	18.4	0.8		
Level of Service	D	A	B	A		
Approach Delay (s)		28.3	5.8		0.0	
Approach LOS		C	A		A	

Intersection Summary			
HCM 2000 Control Delay	20.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	11.9
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



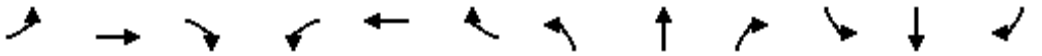
Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (vph)	0	690	410	940	790	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.1	4.1	4.0	4.1	
Lane Util. Factor		0.95	0.91	0.91	0.97	
Frt		1.00	0.92	0.85	1.00	
Flt Protected		1.00	1.00	1.00	0.95	
Satd. Flow (prot)		3539	3119	1441	3433	
Flt Permitted		1.00	1.00	1.00	0.95	
Satd. Flow (perm)		3539	3119	1441	3433	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	750	446	1022	859	0
RTOR Reduction (vph)	0	0	275	0	0	0
Lane Group Flow (vph)	0	750	682	511	859	0
Turn Type		NA	NA	Free	Prot	
Protected Phases		4	4		2 3	
Permitted Phases				Free		
Actuated Green, G (s)		21.1	21.1	75.0	46.1	
Effective Green, g (s)		21.1	21.1	75.0	46.1	
Actuated g/C Ratio		0.28	0.28	1.00	0.61	
Clearance Time (s)		4.1	4.1			
Vehicle Extension (s)		4.1	4.1			
Lane Grp Cap (vph)		995	877	1441	2110	
v/s Ratio Prot		0.21	c0.22		c0.25	
v/s Ratio Perm				c0.35		
v/c Ratio		0.75	0.78	0.35	0.41	
Uniform Delay, d1		24.6	24.8	0.0	7.4	
Progression Factor		0.93	1.00	1.00	1.00	
Incremental Delay, d2		3.1	4.7	0.7	0.0	
Delay (s)		25.9	29.5	0.7	7.5	
Level of Service		C	C	A	A	
Approach Delay (s)		25.9	19.5		7.5	
Approach LOS		C	B		A	

Intersection Summary			
HCM 2000 Control Delay	17.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	11.9
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



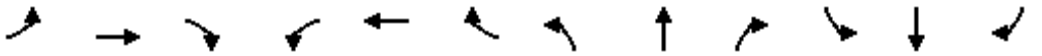
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	410	850	220	110	670	130	360	1000	190	350	480	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6	4.6	4.0	4.9		4.0	4.6	4.6	4.0	4.9	4.9
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3453		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3453		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	441	914	237	120	728	141	391	1087	207	380	522	174
RTOR Reduction (vph)	0	0	83	0	14	0	0	0	90	0	0	116
Lane Group Flow (vph)	441	914	154	120	855	0	391	1087	117	380	522	58
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8						6			2
Actuated Green, G (s)	16.5	39.9	39.9	6.0	29.1		16.6	36.4	36.4	14.5	34.0	34.0
Effective Green, g (s)	16.5	39.9	39.9	6.0	29.1		16.6	36.4	36.4	14.5	34.0	34.0
Actuated g/C Ratio	0.14	0.35	0.35	0.05	0.26		0.15	0.32	0.32	0.13	0.30	0.30
Clearance Time (s)	4.0	4.6	4.6	4.0	4.9		4.0	4.6	4.6	4.0	4.9	4.9
Vehicle Extension (s)	2.0	5.0	5.0	2.0	5.2		2.0	5.0	5.0	2.0	5.2	5.2
Lane Grp Cap (vph)	496	1238	554	180	881		499	1129	505	436	1055	472
v/s Ratio Prot	c0.13	0.26		0.03	c0.25		0.11	c0.31		c0.11	0.15	
v/s Ratio Perm			0.10						0.07			0.04
v/c Ratio	0.89	0.74	0.28	0.67	0.97		0.78	0.96	0.23	0.87	0.49	0.12
Uniform Delay, d1	47.9	32.5	26.7	53.0	42.0		47.0	38.1	28.5	48.8	32.9	29.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	17.0	2.8	0.6	7.0	23.5		7.3	18.7	0.5	16.7	0.8	0.3
Delay (s)	64.9	35.3	27.2	60.0	65.5		54.3	56.8	29.0	65.5	33.7	29.4
Level of Service	E	D	C	E	E		D	E	C	E	C	C
Approach Delay (s)		42.3			64.9			52.8			44.3	
Approach LOS		D			E			D			D	

Intersection Summary			
HCM 2000 Control Delay	50.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	114.0	Sum of lost time (s)	17.8
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	0	0	90	0	120	0	320	50	190	310	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.2		4.2		4.2	4.2	4.0	4.2	
Lane Util. Factor				1.00		1.00		1.00	1.00	1.00	1.00	
Frt				1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected				0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1770		1583		1863	1583	1770	1863	
Flt Permitted				0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1770		1583		1863	1583	1770	1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	98	0	130	0	348	54	207	337	0
RTOR Reduction (vph)	0	0	0	0	0	73	0	0	40	0	0	0
Lane Group Flow (vph)	0	0	0	98	0	57	0	348	14	207	337	0
Turn Type				Prot		Perm		NA	Perm	Prot	NA	
Protected Phases				4				6		5	2	
Permitted Phases						4			6			
Actuated Green, G (s)				40.7		40.7		23.7	23.7	15.6	43.3	
Effective Green, g (s)				40.7		40.7		23.7	23.7	15.6	43.3	
Actuated g/C Ratio				0.44		0.44		0.26	0.26	0.17	0.47	
Clearance Time (s)				4.2		4.2		4.2	4.2	4.0	4.2	
Vehicle Extension (s)				3.0		3.0		4.8	4.8	3.0	4.8	
Lane Grp Cap (vph)				779		697		477	406	298	873	
v/s Ratio Prot				c0.06				c0.19		c0.12	0.18	
v/s Ratio Perm						0.04			0.01			
v/c Ratio				0.13		0.08		0.73	0.03	0.69	0.39	
Uniform Delay, d1				15.3		15.0		31.4	25.8	36.2	15.9	
Progression Factor				1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2				0.3		0.2		6.6	0.1	6.9	0.6	
Delay (s)				15.6		15.2		38.0	25.8	43.0	16.5	
Level of Service				B		B		D	C	D	B	
Approach Delay (s)		0.0			15.4			36.3			26.6	
Approach LOS		A			B			D			C	

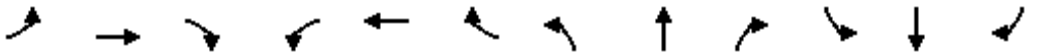
Intersection Summary			
HCM 2000 Control Delay	27.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	92.4	Sum of lost time (s)	12.4
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	100	200	50	190	40	190	330	30	50	290	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.90		1.00	0.97		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1677		1770	1815		1770	1839		1770	1863	1583
Flt Permitted	0.56	1.00		0.46	1.00		0.52	1.00		0.45	1.00	1.00
Satd. Flow (perm)	1036	1677		864	1815		971	1839		834	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	109	217	54	207	43	207	359	33	54	315	98
RTOR Reduction (vph)	0	120	0	0	12	0	0	6	0	0	0	51
Lane Group Flow (vph)	65	206	0	54	238	0	207	386	0	54	315	47
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	22.8	22.8		22.8	22.8		28.8	28.8		28.8	28.8	28.8
Effective Green, g (s)	22.8	22.8		22.8	22.8		28.8	28.8		28.8	28.8	28.8
Actuated g/C Ratio	0.38	0.38		0.38	0.38		0.48	0.48		0.48	0.48	0.48
Clearance Time (s)	4.2	4.2		4.2	4.2		4.2	4.2		4.2	4.2	4.2
Lane Grp Cap (vph)	393	637		328	689		466	882		400	894	759
v/s Ratio Prot		0.12			c0.13			0.21			0.17	
v/s Ratio Perm	0.06			0.06			c0.21			0.06		0.03
v/c Ratio	0.17	0.32		0.16	0.34		0.44	0.44		0.14	0.35	0.06
Uniform Delay, d1	12.3	13.2		12.3	13.3		10.3	10.3		8.7	9.8	8.4
Progression Factor	1.06	1.21		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.9	1.3		1.1	1.4		3.0	1.6		0.7	1.1	0.2
Delay (s)	14.0	17.2		13.4	14.6		13.4	11.9		9.4	10.9	8.5
Level of Service	B	B		B	B		B	B		A	B	A
Approach Delay (s)		16.6			14.4			12.4			10.2	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		

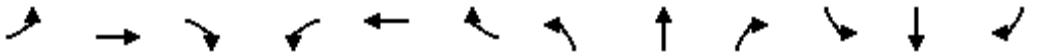
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	240	770	80	70	1260	200	10	30	60	90	150	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8		4.8	4.8		4.8	4.8	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.90		1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	3464		1770	3381		1687	1672		1770	1678	
Flt Permitted	0.12	1.00		0.28	1.00		0.17	1.00		0.67	1.00	
Satd. Flow (perm)	214	3464		527	3381		306	1672		1249	1678	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	837	87	76	1370	217	11	33	65	98	163	261
RTOR Reduction (vph)	0	7	0	0	11	0	0	52	0	0	48	0
Lane Group Flow (vph)	261	917	0	76	1576	0	11	46	0	98	376	0
Heavy Vehicles (%)	3%	2%	10%	2%	5%	2%	7%	3%	2%	2%	4%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	87.2	87.2		87.2	87.2		23.2	23.2		23.2	23.2	
Effective Green, g (s)	87.2	87.2		87.2	87.2		23.2	23.2		23.2	23.2	
Actuated g/C Ratio	0.73	0.73		0.73	0.73		0.19	0.19		0.19	0.19	
Clearance Time (s)	4.8	4.8		4.8	4.8		4.8	4.8		4.8	4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	155	2517		382	2456		59	323		241	324	
v/s Ratio Prot		0.26			0.47			0.03			c0.22	
v/s Ratio Perm	c1.22			0.14			0.04			0.08		
v/c Ratio	1.68	0.36		0.20	0.64		0.19	0.14		0.41	1.16	
Uniform Delay, d1	16.4	6.1		5.2	8.4		40.5	40.1		42.4	48.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	334.1	0.1		0.3	0.6		6.9	0.9		5.0	100.5	
Delay (s)	350.5	6.2		5.5	9.0		47.4	41.1		47.4	148.9	
Level of Service	F	A		A	A		D	D		D	F	
Approach Delay (s)		82.0			8.8			41.7			129.8	
Approach LOS		F			A			D			F	

Intersection Summary			
HCM 2000 Control Delay	52.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.57		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	101.8%	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	870	50	130	1110	0	0	0	0	150	10	420
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.2		5.2	5.2					4.2	4.2	
Lane Util. Factor		0.95		1.00	0.95					1.00	1.00	
Frt		0.99		1.00	1.00					1.00	0.85	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3511		1770	3438					1770	1590	
Flt Permitted		1.00		0.21	1.00					0.95	1.00	
Satd. Flow (perm)		3511		397	3438					1770	1590	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	946	54	141	1207	0	0	0	0	163	11	457
RTOR Reduction (vph)	0	6	0	0	0	0	0	0	0	0	35	0
Lane Group Flow (vph)	0	994	0	141	1207	0	0	0	0	163	433	0
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type		NA		Perm	NA					Split	NA	
Protected Phases		2			2					4	4	
Permitted Phases				2								
Actuated Green, G (s)		29.9		29.9	29.9					21.7	21.7	
Effective Green, g (s)		29.9		29.9	29.9					21.7	21.7	
Actuated g/C Ratio		0.49		0.49	0.49					0.36	0.36	
Clearance Time (s)		5.2		5.2	5.2					4.2	4.2	
Vehicle Extension (s)		0.2		0.2	0.2					5.2	5.2	
Lane Grp Cap (vph)		1720		194	1685					629	565	
v/s Ratio Prot		0.28			0.35					0.09	c0.27	
v/s Ratio Perm				c0.35								
v/c Ratio		0.58		0.73	0.72					0.26	0.77	
Uniform Delay, d1		11.1		12.3	12.2					13.9	17.4	
Progression Factor		1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2		0.3		10.9	1.2					0.5	7.4	
Delay (s)		11.4		23.2	13.4					14.4	24.8	
Level of Service		B		C	B					B	C	
Approach Delay (s)		11.4			14.5			0.0			22.1	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	61.0	Sum of lost time (s)	9.4
Intersection Capacity Utilization	83.5%	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)	280	740	0	0	1010	410	230	10	240	0	0	0
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			
Lane Util. Factor	1.00	0.95			0.95			1.00	1.00			
Frt	1.00	1.00			0.96			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	1770	3539			3316			1778	1583			
Flt Permitted	0.13	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	237	3539			3316			1778	1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	304	804	0	0	1098	446	250	11	261	0	0	0
RTOR Reduction (vph)	0	0	0	0	48	0	0	0	216	0	0	0
Lane Group Flow (vph)	304	804	0	0	1496	0	0	261	45	0	0	0
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA			NA		Perm	NA	Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Actuated Green, G (s)	66.0	66.0			66.0			15.4	15.4			
Effective Green, g (s)	66.0	66.0			66.0			15.4	15.4			
Actuated g/C Ratio	0.74	0.74			0.74			0.17	0.17			
Clearance Time (s)	4.0	4.0			4.0			4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			
Lane Grp Cap (vph)	174	2612			2448			306	272			
v/s Ratio Prot		0.23			0.45							
v/s Ratio Perm	c1.28							0.15	0.03			
v/c Ratio	1.75	0.31			0.61			0.85	0.17			
Uniform Delay, d1	11.7	4.0			5.6			35.9	31.5			
Progression Factor	1.00	1.00			1.00			1.00	1.00			
Incremental Delay, d2	358.9	0.1			0.5			19.9	0.3			
Delay (s)	370.6	4.0			6.0			55.8	31.8			
Level of Service	F	A			A			E	C			
Approach Delay (s)		104.6			6.0			43.8			0.0	
Approach LOS		F			A			D			A	

Intersection Summary			
HCM 2000 Control Delay	46.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.57		
Actuated Cycle Length (s)	89.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.5%	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 (veh/h)	110	840	30	10	1190	60	70	120	160	60	10	160
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Hourly flow rate (vph)	120	913	33	11	1293	65	75	129	172	65	11	174
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		270										
pX, platoon unblocked				0.92			0.92	0.92	0.92	0.92	0.92	
vC, conflicting volume	1359			946			2016	2549	473	2280	2533	679
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1359			776			1935	2512	264	2221	2494	679
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	76			99			0	0	75	0	45	56
cM capacity (veh/h)	502			772			10	19	678	0	20	394

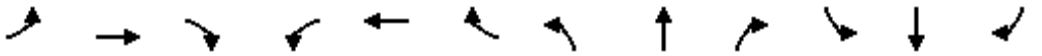
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	576	489	658	712	376	250
Volume Left	120	0	11	0	75	65
Volume Right	0	33	0	65	172	174
cSH	502	1700	772	1700	25	0
Volume to Capacity	0.24	0.29	0.01	0.42	14.78	Err
Queue Length 95th (ft)	23	0	1	0	Err	Err
Control Delay (s)	6.7	0.0	0.4	0.0	Err	Err
Lane LOS	A		A		F	F
Approach Delay (s)	3.6		0.2		Err	Err
Approach LOS					F	F

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	260	920	30	10	1130	120	30	20	10	100	20	260
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	283	1000	33	11	1228	130	33	22	11	109	22	283
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					400							
pX, platoon unblocked	0.68						0.68	0.68		0.68	0.68	0.68
vC, conflicting volume	1359			1033			2511	2962	516	2402	2913	679
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	601			1033			2285	2944	516	2126	2873	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	58			98			0	0	98	0	0	62
cM capacity (veh/h)	665			669			0	6	504	0	6	742

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	283	667	366	11	819	540	65	413
Volume Left	283	0	0	11	0	0	33	109
Volume Right	0	0	33	0	0	130	11	283
cSH	665	1700	1700	669	1700	1700	0	0
Volume to Capacity	0.42	0.39	0.22	0.02	0.48	0.32	Err	Err
Queue Length 95th (ft)	53	0	0	1	0	0	Err	Err
Control Delay (s)	14.3	0.0	0.0	10.5	0.0	0.0	Err	Err
Lane LOS	B			B			F	F
Approach Delay (s)	3.1			0.1			Err	Err
Approach LOS							F	F

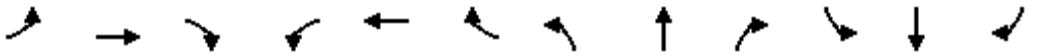
Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	83.7%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	870	150	70	1070	20	170	30	20	100	380	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		5.6	5.6		5.6	5.6	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	0.94		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3461		1770	3529		1770	1751		1770	1849	
Flt Permitted	0.95	1.00		0.95	1.00		0.35	1.00		0.72	1.00	
Satd. Flow (perm)	1770	3461		1770	3529		655	1751		1343	1849	
Peak-hour factor, PHF	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	946	163	74	1126	21	185	33	22	109	413	22
RTOR Reduction (vph)	0	16	0	0	1	0	0	13	0	0	2	0
Lane Group Flow (vph)	22	1093	0	74	1146	0	185	42	0	109	433	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	8.0	31.5		8.0	31.5		36.7	36.7		36.7	36.7	
Effective Green, g (s)	8.0	31.5		8.0	31.5		36.7	36.7		36.7	36.7	
Actuated g/C Ratio	0.09	0.35		0.09	0.35		0.41	0.41		0.41	0.41	
Clearance Time (s)	4.0	4.2		4.0	4.2		5.6	5.6		5.6	5.6	
Lane Grp Cap (vph)	157	1211		157	1235		267	714		547	753	
v/s Ratio Prot	0.01	c0.32		0.04	c0.32			0.02			0.23	
v/s Ratio Perm							c0.28			0.08		
v/c Ratio	0.14	0.90		0.47	0.93		0.69	0.06		0.20	0.57	
Uniform Delay, d1	37.8	27.8		39.0	28.2		22.0	16.2		17.2	20.6	
Progression Factor	1.00	1.00		0.76	0.92		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.9	11.0		2.6	4.3		13.8	0.2		0.8	3.2	
Delay (s)	39.7	38.8		32.1	30.2		35.8	16.3		18.0	23.8	
Level of Service	D	D		C	C		D	B		B	C	
Approach Delay (s)		38.8			30.3			31.4			22.6	
Approach LOS		D			C			C			C	

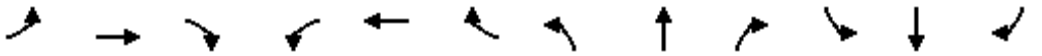
Intersection Summary			
HCM 2000 Control Delay	32.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.8
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



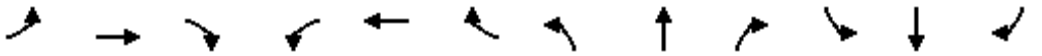
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	680	440	70	720	120	430	580	100	150	390	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.0	4.2		4.2	4.2	4.2	4.2	4.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.94		1.00	0.98		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3331		1770	3464		1770	1863	1583	1770	1826	
Flt Permitted	0.95	1.00		0.95	1.00		0.36	1.00	1.00	0.25	1.00	
Satd. Flow (perm)	1770	3331		1770	3464		674	1863	1583	470	1826	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	739	478	76	783	130	467	630	109	163	424	65
RTOR Reduction (vph)	0	117	0	0	14	0	0	0	52	0	6	0
Lane Group Flow (vph)	43	1100	0	76	899	0	467	630	57	163	483	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	3.6	25.2		5.6	27.2		46.8	46.8	46.8	46.8	46.8	
Effective Green, g (s)	3.6	25.2		5.6	27.2		46.8	46.8	46.8	46.8	46.8	
Actuated g/C Ratio	0.04	0.28		0.06	0.30		0.52	0.52	0.52	0.52	0.52	
Clearance Time (s)	4.0	4.2		4.0	4.2		4.2	4.2	4.2	4.2	4.2	
Vehicle Extension (s)	2.0	4.8		2.0	4.8		4.8	4.8	4.8	4.8	4.8	
Lane Grp Cap (vph)	70	932		110	1046		350	968	823	244	949	
v/s Ratio Prot	0.02	c0.33		0.04	c0.26			0.34			0.26	
v/s Ratio Perm							c0.69		0.04	0.35		
v/c Ratio	0.61	1.18		0.69	0.86		1.33	0.65	0.07	0.67	0.51	
Uniform Delay, d1	42.5	32.4		41.4	29.6		21.6	15.7	10.8	15.9	14.1	
Progression Factor	0.88	0.47		0.68	0.55		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	7.7	89.4		12.6	8.3		168.7	2.0	0.1	8.5	0.8	
Delay (s)	45.0	104.5		40.8	24.5		190.3	17.7	10.8	24.4	14.9	
Level of Service	D	F		D	C		F	B	B	C	B	
Approach Delay (s)		102.4			25.7			83.9			17.3	
Approach LOS		F			C			F			B	

Intersection Summary			
HCM 2000 Control Delay	65.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	99.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



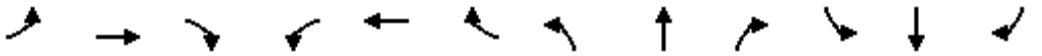
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	950	30	40	910	10	10	30	0	20	530	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2		4.0	4.0			4.2	4.2
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1770	3523		1770	3533		1770	1863			1859	1583
Flt Permitted	0.22	1.00		0.20	1.00		0.13	1.00			0.99	1.00
Satd. Flow (perm)	414	3523		373	3533		248	1863			1846	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	1033	33	43	989	11	11	33	0	22	576	22
RTOR Reduction (vph)	0	3	0	0	1	0	0	0	0	0	0	10
Lane Group Flow (vph)	22	1063	0	43	999	0	11	33	0	0	598	12
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	51.8	51.8		51.8	51.8		30.0	30.0			29.8	29.8
Effective Green, g (s)	51.8	51.8		51.8	51.8		30.0	30.0			29.8	29.8
Actuated g/C Ratio	0.58	0.58		0.58	0.58		0.33	0.33			0.33	0.33
Clearance Time (s)	4.2	4.2		4.2	4.2		4.0	4.0			4.2	4.2
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0			2.0	2.0
Lane Grp Cap (vph)	238	2027		214	2033		82	621			611	524
v/s Ratio Prot		c0.30			0.28			0.02				
v/s Ratio Perm	0.05			0.12			0.04				c0.32	0.01
v/c Ratio	0.09	0.52		0.20	0.49		0.13	0.05			0.98	0.02
Uniform Delay, d1	8.6	11.6		9.2	11.3		20.9	20.4			29.8	20.3
Progression Factor	1.12	1.00		0.63	0.81		1.00	1.00			1.45	1.82
Incremental Delay, d2	0.4	0.5		2.0	0.8		0.7	0.0			29.2	0.0
Delay (s)	10.0	12.1		7.8	9.9		21.7	20.4			72.5	36.9
Level of Service	A	B		A	A		C	C			E	D
Approach Delay (s)		12.0			9.8			20.7			71.3	
Approach LOS		B			A			C			E	

Intersection Summary			
HCM 2000 Control Delay	24.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



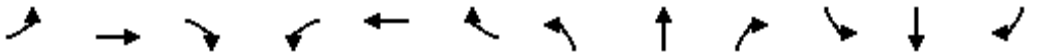
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	860	30	10	710	60	140	190	20	110	180	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2	4.2	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95	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	3539	1583	1770	3539	1583	1681	1764	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.49	0.97	1.00	0.41	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	867	1723	1583	769	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	935	33	11	772	65	152	207	22	120	196	185
RTOR Reduction (vph)	0	0	12	0	0	28	0	0	17	0	0	145
Lane Group Flow (vph)	54	935	21	11	772	37	137	222	5	120	196	40
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	3	8		7	4			6			2	
Permitted Phases			8			4	6		6	2		2
Actuated Green, G (s)	6.3	57.0	57.0	1.2	51.9	51.9	19.4	19.4	19.4	19.4	19.4	19.4
Effective Green, g (s)	6.3	57.0	57.0	1.2	51.9	51.9	19.4	19.4	19.4	19.4	19.4	19.4
Actuated g/C Ratio	0.07	0.63	0.63	0.01	0.58	0.58	0.22	0.22	0.22	0.22	0.22	0.22
Clearance Time (s)	4.0	4.2	4.2	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Vehicle Extension (s)	2.0	4.9	4.9	2.0	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Lane Grp Cap (vph)	123	2241	1002	23	2040	912	186	371	341	165	401	341
v/s Ratio Prot	0.03	c0.26		0.01	c0.22						0.11	
v/s Ratio Perm			0.01			0.02	c0.16	0.13	0.00	0.16		0.03
v/c Ratio	0.44	0.42	0.02	0.48	0.38	0.04	0.74	0.60	0.01	0.73	0.49	0.12
Uniform Delay, d1	40.2	8.2	6.1	44.1	10.3	8.3	32.9	31.8	27.8	32.8	31.0	28.4
Progression Factor	0.93	2.01	5.78	0.89	0.70	0.32	0.85	0.85	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.5	0.0	5.3	0.5	0.1	16.2	3.7	0.0	17.6	1.9	0.3
Delay (s)	38.2	17.0	35.5	44.4	7.7	2.7	44.2	30.7	27.8	50.4	32.8	28.7
Level of Service	D	B	D	D	A	A	D	C	C	D	C	C
Approach Delay (s)		18.8			7.8			35.3			35.5	
Approach LOS		B			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.4
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



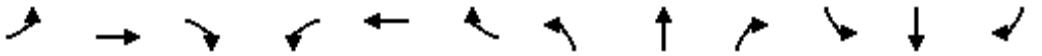
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	910	0	0	730	110	40	130	120	220	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2			4.2		4.2	4.2	4.2		4.0	
Lane Util. Factor	1.00	0.95			0.95		1.00	1.00	1.00		1.00	
Frt	1.00	1.00			0.98		1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	
Satd. Flow (prot)	1770	3539			3469		1770	1863	1583		1767	
Flt Permitted	0.28	1.00			1.00		0.79	1.00	1.00		0.59	
Satd. Flow (perm)	520	3539			3469		1469	1863	1583		1086	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	989	0	0	793	120	43	141	130	239	0	11
RTOR Reduction (vph)	0	0	0	0	13	0	0	0	100	0	11	0
Lane Group Flow (vph)	87	989	0	0	900	0	43	141	30	0	239	0
Turn Type	Perm	NA			NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8		8	4		
Actuated Green, G (s)	60.6	60.6			60.6		21.0	21.0	21.0		21.2	
Effective Green, g (s)	60.6	60.6			60.6		21.0	21.0	21.0		21.2	
Actuated g/C Ratio	0.67	0.67			0.67		0.23	0.23	0.23		0.24	
Clearance Time (s)	4.2	4.2			4.2		4.2	4.2	4.2		4.0	
Vehicle Extension (s)	2.0	2.0			2.0		2.0	2.0	2.0		3.0	
Lane Grp Cap (vph)	350	2382			2335		342	434	369		255	
v/s Ratio Prot		c0.28			0.26			0.08				
v/s Ratio Perm	0.17						0.03		0.02		c0.22	
v/c Ratio	0.25	0.42			0.39		0.13	0.32	0.08		0.94	
Uniform Delay, d1	5.8	6.7			6.5		27.2	28.6	27.0		33.7	
Progression Factor	0.40	0.72			1.00		1.00	1.00	1.00		0.99	
Incremental Delay, d2	1.6	0.5			0.5		0.1	0.2	0.0		38.8	
Delay (s)	3.9	5.3			7.0		27.3	28.8	27.0		72.3	
Level of Service	A	A			A		C	C	C		E	
Approach Delay (s)		5.2			7.0			27.8			72.3	
Approach LOS		A			A			C			E	

Intersection Summary			
HCM 2000 Control Delay	15.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



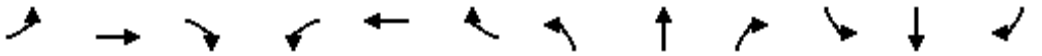
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	510	820	10	30	590	260	10	380	20	250	230	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6	4.6	4.6	4.6		4.6	4.6	4.6
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	3533		1770	3539	1583	1770	3512		1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.48	1.00		0.42	1.00	1.00
Satd. Flow (perm)	1770	3533		1770	3539	1583	899	3512		776	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	554	891	11	33	641	283	11	413	22	272	250	185
RTOR Reduction (vph)	0	1	0	0	0	134	0	4	0	0	0	129
Lane Group Flow (vph)	554	901	0	33	641	149	11	431	0	272	250	56
Turn Type	Prot	NA		Prot	NA	custom	Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases						8	8			4		4
Actuated Green, G (s)	21.6	45.8		3.6	27.8	27.4	27.4	27.4		27.4	27.4	27.4
Effective Green, g (s)	21.6	45.8		3.6	27.8	27.4	27.4	27.4		27.4	27.4	27.4
Actuated g/C Ratio	0.24	0.51		0.04	0.31	0.30	0.30	0.30		0.30	0.30	0.30
Clearance Time (s)	4.0	4.6		4.0	4.6	4.6	4.6	4.6		4.6	4.6	4.6
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	424	1797		70	1093	481	273	1069		236	567	481
v/s Ratio Prot	c0.31	0.26		0.02	c0.18			0.12			0.13	
v/s Ratio Perm						0.09	0.01			c0.35		0.04
v/c Ratio	1.31	0.50		0.47	0.59	0.31	0.04	0.40		1.15	0.44	0.12
Uniform Delay, d1	34.2	14.6		42.3	26.2	24.0	22.0	24.8		31.3	25.1	22.6
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	154.2	1.0		1.8	2.3	0.1	0.0	0.1		106.0	0.2	0.0
Delay (s)	188.4	15.6		44.1	28.6	24.2	22.1	24.9		137.3	25.3	22.6
Level of Service	F	B		D	C	C	C	C		F	C	C
Approach Delay (s)		81.3			27.8			24.8			67.7	
Approach LOS		F			C			C			E	

Intersection Summary			
HCM 2000 Control Delay	57.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



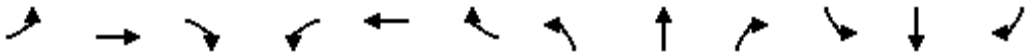
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	10	220	30	220	20	380	0	0	210	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.2	4.6	4.6	4.6	4.2	4.6			4.6	4.6
Lane Util. Factor			1.00	1.00	1.00	0.88	1.00	1.00			1.00	1.00
Frt			0.86	1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected			1.00	0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)			1611	1770	1863	2787	1770	1863			1863	1583
Flt Permitted			1.00	0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)			1611	1770	1863	2787	1770	1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	11	239	33	239	22	413	0	0	228	11
RTOR Reduction (vph)	0	0	8	0	0	182	0	0	0	0	0	5
Lane Group Flow (vph)	0	0	3	239	33	57	22	413	0	0	228	6
Turn Type			pm+ov	Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases			1		4		1	6			2	
Permitted Phases			8	4		4						2
Actuated Green, G (s)			25.2	21.3	21.3	21.3	3.9	59.5			51.4	51.4
Effective Green, g (s)			25.2	21.3	21.3	21.3	3.9	59.5			51.4	51.4
Actuated g/C Ratio			0.28	0.24	0.24	0.24	0.04	0.66			0.57	0.57
Clearance Time (s)			4.2	4.6	4.6	4.6	4.2	4.6			4.6	4.6
Vehicle Extension (s)			2.0	5.3	5.3	5.3	2.0	5.1			5.2	5.2
Lane Grp Cap (vph)			451	418	440	659	76	1231			1063	904
v/s Ratio Prot			0.00		0.02		0.01	c0.22			0.12	
v/s Ratio Perm			0.00	c0.14		0.02						0.00
v/c Ratio			0.01	0.57	0.07	0.09	0.29	0.34			0.21	0.01
Uniform Delay, d1			23.4	30.3	26.7	26.8	41.7	6.6			9.4	8.3
Progression Factor			1.00	1.00	1.00	1.00	1.00	1.00			0.15	1.00
Incremental Delay, d2			0.0	3.2	0.2	0.1	0.8	0.7			0.5	0.0
Delay (s)			23.4	33.5	26.9	26.9	42.5	7.4			1.9	8.3
Level of Service			C	C	C	C	D	A			A	A
Approach Delay (s)		23.4			30.0			9.2			2.2	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	16.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	680	40	0	0	0	0	90	200	210	110	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		0.99						0.91		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		3502						1690		1770	1863	
Flt Permitted		1.00						1.00		0.54	1.00	
Satd. Flow (perm)		3502						1690		1006	1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	739	43	0	0	0	0	98	217	228	120	0
RTOR Reduction (vph)	0	10	0	0	0	0	0	60	0	0	0	0
Lane Group Flow (vph)	0	815	0	0	0	0	0	255	0	228	120	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		13.8						12.2		12.2	12.2	
Effective Green, g (s)		13.8						12.2		12.2	12.2	
Actuated g/C Ratio		0.41						0.36		0.36	0.36	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		1421						606		360	668	
v/s Ratio Prot								0.15			0.06	
v/s Ratio Perm		0.23								c0.23		
v/c Ratio		0.57						0.42		0.63	0.18	
Uniform Delay, d1		7.8						8.2		9.0	7.5	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.6						0.5		3.6	0.1	
Delay (s)		8.4						8.7		12.7	7.6	
Level of Service		A						A		B	A	
Approach Delay (s)		8.4			0.0			8.7			10.9	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	9.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	34.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

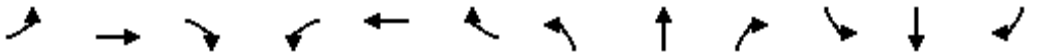


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	60	40	560	20	550	0	0	970	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			1.00	
Flt Protected					0.97	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1808	1583	1770	1863			1858	
Flt Permitted					0.97	1.00	0.28	1.00			1.00	
Satd. Flow (perm)					1808	1583	522	1863			1858	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	65	43	609	22	598	0	0	1054	22
RTOR Reduction (vph)	0	0	0	0	0	406	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	0	108	203	22	598	0	0	1075	0
Turn Type				custom	NA	custom	Perm	NA			NA	
Protected Phases					6!			8!			6!	
Permitted Phases				8!		8	8!					
Actuated Green, G (s)					52.0	30.0	30.0	30.0			52.0	
Effective Green, g (s)					52.0	30.0	30.0	30.0			52.0	
Actuated g/C Ratio					0.58	0.33	0.33	0.33			0.58	
Clearance Time (s)					4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)					3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)					1044	527	174	621			1073	
v/s Ratio Prot								c0.32			c0.58	
v/s Ratio Perm					0.06	0.13	0.04					
v/c Ratio					0.10	0.39	0.13	0.96			1.00	
Uniform Delay, d1					8.5	22.9	20.9	29.5			19.0	
Progression Factor					1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2					0.0	0.5	0.3	27.0			28.0	
Delay (s)					8.6	23.4	21.2	56.4			47.0	
Level of Service					A	C	C	E			D	
Approach Delay (s)		0.0			21.2			55.2			47.0	
Approach LOS		A			C			E			D	

Intersection Summary			
HCM 2000 Control Delay	41.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	123.4%	ICU Level of Service	H
Analysis Period (min)	15		

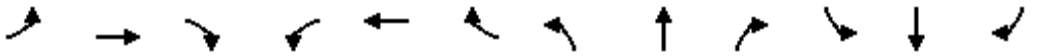
! Phase conflict between lane groups.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	350	220	150	0	0	0	0	220	60	480	550	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		0.97						0.97		1.00	1.00	
Flt Protected		0.98						1.00		0.95	1.00	
Satd. Flow (prot)		3347						1809		1770	1863	
Flt Permitted		0.98						1.00		0.56	1.00	
Satd. Flow (perm)		3347						1809		1047	1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	380	239	163	0	0	0	0	239	65	522	598	0
RTOR Reduction (vph)	0	43	0	0	0	0	0	18	0	0	0	0
Lane Group Flow (vph)	0	739	0	0	0	0	0	286	0	522	598	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		14.9						28.7		28.7	28.7	
Effective Green, g (s)		14.9						28.7		28.7	28.7	
Actuated g/C Ratio		0.29						0.56		0.56	0.56	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		966						1006		582	1036	
v/s Ratio Prot								0.16			0.32	
v/s Ratio Perm		0.22								c0.50		
v/c Ratio		0.77						0.28		0.90	0.58	
Uniform Delay, d1		16.8						6.0		10.1	7.5	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		3.7						0.2		16.4	0.8	
Delay (s)		20.4						6.2		26.5	8.3	
Level of Service		C						A		C	A	
Approach Delay (s)		20.4			0.0			6.2			16.8	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	51.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	123.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	200	150	140	560	110	130	290	30	10	130	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		5.4	5.4		5.4	5.4		5.4	5.4	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.94		1.00	0.98		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1743		1770	1765		1770	1836		1770	1792	
Flt Permitted	0.31	1.00		0.49	1.00		0.58	1.00		0.28	1.00	
Satd. Flow (perm)	577	1743		916	1765		1082	1836		520	1792	
Peak-hour factor, PHF	0.92	0.92	0.92	1.00	1.00	1.00	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	217	163	140	560	110	141	315	33	11	141	33
RTOR Reduction (vph)	0	23	0	0	6	0	0	4	0	0	9	0
Lane Group Flow (vph)	65	357	0	140	664	0	141	344	0	11	165	0
Heavy Vehicles (%)	2%	2%	2%	2%	4%	10%	2%	2%	2%	2%	3%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			2	
Permitted Phases	4			8			2			2		
Actuated Green, G (s)	65.3	65.3		63.9	63.9		25.3	25.3		25.3	25.3	
Effective Green, g (s)	65.3	65.3		63.9	63.9		25.3	25.3		25.3	25.3	
Actuated g/C Ratio	0.65	0.65		0.64	0.64		0.25	0.25		0.25	0.25	
Clearance Time (s)	4.0	4.0		5.4	5.4		5.4	5.4		5.4	5.4	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	376	1138		585	1127		273	464		131	453	
v/s Ratio Prot		0.20			c0.38			c0.19			0.09	
v/s Ratio Perm	0.11			0.15			0.13			0.02		
v/c Ratio	0.17	0.31		0.24	0.59		0.52	0.74		0.08	0.36	
Uniform Delay, d1	6.8	7.6		7.7	10.4		32.1	34.3		28.5	30.7	
Progression Factor	0.40	0.40		0.51	1.13		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	0.2		0.1	0.2		1.6	6.3		0.3	0.5	
Delay (s)	3.0	3.3		4.0	12.0		33.7	40.6		28.8	31.2	
Level of Service	A	A		A	B		C	D		C	C	
Approach Delay (s)		3.2			10.6			38.6			31.1	
Approach LOS		A			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	18.0	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)	10.8
Intersection Capacity Utilization	94.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	160	400	10	40	210	20	30	380	60	70	300	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.2		4.2	4.2			4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99			0.98		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)	1770	1838		1770	1838			1825		1719	1771	
Flt Permitted	0.95	1.00		0.50	1.00			0.78		0.95	1.00	
Satd. Flow (perm)	1770	1838		940	1838			1422		1719	1771	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.00	0.92	1.00
Adj. Flow (vph)	174	435	11	43	228	22	33	413	65	70	326	160
RTOR Reduction (vph)	0	1	0	0	4	0	0	6	0	0	20	0
Lane Group Flow (vph)	174	445	0	43	246	0	0	505	0	70	466	0
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	2%	2%	2%	5%	2%	2%
Turn Type	Prot	NA		Perm	NA		Perm	NA		Prot	NA	
Protected Phases	7	4			8			2!		2!	6	
Permitted Phases				8			2					
Actuated Green, G (s)	11.2	49.3		34.1	34.1			32.5		32.5	32.5	
Effective Green, g (s)	11.2	49.3		34.1	34.1			32.5		32.5	32.5	
Actuated g/C Ratio	0.12	0.55		0.38	0.38			0.36		0.36	0.36	
Clearance Time (s)	4.0	4.2		4.2	4.2			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	220	1006		356	696			513		620	639	
v/s Ratio Prot	c0.10	c0.24			0.13					0.04	0.26	
v/s Ratio Perm				0.05				c0.35				
v/c Ratio	0.79	0.44		0.12	0.35			0.98		0.11	0.73	
Uniform Delay, d1	38.3	12.1		18.2	20.0			28.5		19.1	24.9	
Progression Factor	1.40	0.40		0.89	1.01			1.00		1.00	1.00	
Incremental Delay, d2	15.3	1.2		0.6	1.3			35.3		0.1	4.2	
Delay (s)	68.7	6.0		16.9	21.5			63.8		19.2	29.1	
Level of Service	E	A		B	C			E		B	C	
Approach Delay (s)		23.6			20.8			63.8			27.8	
Approach LOS		C			C			E			C	

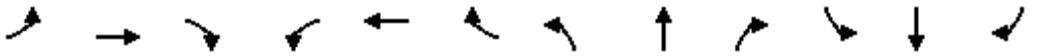
Intersection Summary			
HCM 2000 Control Delay	34.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.2
Intersection Capacity Utilization	84.1%	ICU Level of Service	E
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

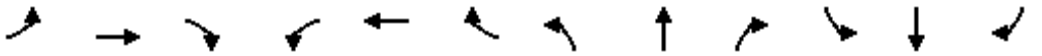
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	130	410	120	10	400	130	140	460	50	40	200	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	0.96		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1800		1770	1794		1770	1836		1770	1798	
Flt Permitted	0.32	1.00		0.32	1.00		0.51	1.00		0.22	1.00	
Satd. Flow (perm)	604	1800		604	1794		958	1836		401	1798	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	141	446	130	11	435	141	152	500	54	43	217	65
RTOR Reduction (vph)	0	18	0	0	20	0	0	6	0	0	18	0
Lane Group Flow (vph)	141	558	0	11	556	0	152	548	0	43	264	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	30.6	30.6		30.6	30.6		18.6	18.6		18.6	18.6	
Effective Green, g (s)	30.6	30.6		30.6	30.6		18.6	18.6		18.6	18.6	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.31	0.31		0.31	0.31	
Clearance Time (s)	5.4	5.4		5.4	5.4		5.4	5.4		5.4	5.4	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	308	918		308	914		296	569		124	557	
v/s Ratio Prot		c0.31			0.31			c0.30			0.15	
v/s Ratio Perm	0.23			0.02			0.16			0.11		
v/c Ratio	0.46	0.61		0.04	0.61		0.51	0.96		0.35	0.47	
Uniform Delay, d1	9.4	10.4		7.3	10.4		17.0	20.4		16.0	16.7	
Progression Factor	0.85	0.94		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.6	2.2		0.2	3.0		1.5	28.4		1.7	0.6	
Delay (s)	11.6	12.0		7.6	13.5		18.5	48.8		17.7	17.4	
Level of Service	B	B		A	B		B	D		B	B	
Approach Delay (s)		11.9			13.3			42.2			17.4	
Approach LOS		B			B			D			B	

Intersection Summary			
HCM 2000 Control Delay	22.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	115.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



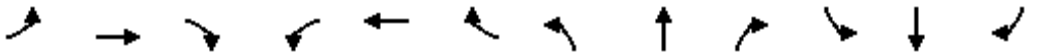
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	120	10	20	210	200	10	90	20	110	190	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.2	4.0			4.2	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.99		1.00	0.92		1.00	0.97			0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1770	1824		1770	1721		1641	1815			1741	
Flt Permitted	0.42	1.00		0.67	1.00		0.35	1.00			0.90	
Satd. Flow (perm)	787	1824		1243	1721		611	1815			1583	
Peak-hour factor, PHF	0.92	0.92	0.92	1.00	1.00	0.92	1.00	0.92	1.00	0.92	0.92	0.92
Adj. Flow (vph)	22	130	11	20	210	217	10	98	20	120	207	228
RTOR Reduction (vph)	0	5	0	0	62	0	0	12	0	0	42	0
Lane Group Flow (vph)	22	136	0	20	365	0	10	106	0	0	513	0
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	10%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		D.Pm	NA		Perm	NA	
Protected Phases		8			4			2			6	
Permitted Phases	8			4			6			6		
Actuated Green, G (s)	30.0	30.0		30.0	30.0		21.8	22.0			21.8	
Effective Green, g (s)	30.0	30.0		30.0	30.0		21.8	22.0			21.8	
Actuated g/C Ratio	0.50	0.50		0.50	0.50		0.36	0.37			0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.2	4.0			4.2	
Lane Grp Cap (vph)	393	912		621	860		221	665			575	
v/s Ratio Prot		0.07			c0.21			0.06				
v/s Ratio Perm	0.03			0.02			0.02				c0.32	
v/c Ratio	0.06	0.15		0.03	0.42		0.05	0.16			0.89	
Uniform Delay, d1	7.7	8.1		7.6	9.5		12.4	12.8			18.0	
Progression Factor	1.00	1.00		0.90	0.82		1.00	1.00			1.00	
Incremental Delay, d2	0.3	0.3		0.1	1.5		0.4	0.5			18.7	
Delay (s)	8.0	8.4		6.9	9.2		12.7	13.3			36.7	
Level of Service	A	A		A	A		B	B			D	
Approach Delay (s)		8.4			9.1			13.2			36.7	
Approach LOS		A			A			B			D	

Intersection Summary			
HCM 2000 Control Delay	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	67.4%	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)	20	250	30	30	520	50	80	160	80	90	120	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.99			0.97			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1770	1833		1770	1838			1778			1797	
Flt Permitted	0.32	1.00		0.55	1.00			0.82			0.66	
Satd. Flow (perm)	603	1833		1016	1838			1483			1199	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	272	33	33	565	54	87	174	87	98	130	33
RTOR Reduction (vph)	0	4	0	0	3	0	0	16	0	0	7	0
Lane Group Flow (vph)	22	301	0	33	616	0	0	332	0	0	254	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)	55.7	55.7		55.7	55.7			25.9			25.9	
Effective Green, g (s)	55.7	55.7		55.7	55.7			25.9			25.9	
Actuated g/C Ratio	0.62	0.62		0.62	0.62			0.29			0.29	
Clearance Time (s)	4.2	4.2		4.2	4.2			4.2			4.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	373	1134		628	1137			426			345	
v/s Ratio Prot		0.16			c0.34							
v/s Ratio Perm	0.04			0.03				c0.22			0.21	
v/c Ratio	0.06	0.27		0.05	0.54			0.78			0.74	
Uniform Delay, d1	6.8	7.8		6.8	9.8			29.4			29.0	
Progression Factor	1.00	1.00		0.35	0.35			1.00			1.00	
Incremental Delay, d2	0.3	0.6		0.1	1.7			9.0			7.9	
Delay (s)	7.1	8.4		2.5	5.2			38.4			36.9	
Level of Service	A	A		A	A			D			D	
Approach Delay (s)		8.3			5.1			38.4			36.9	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.4
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

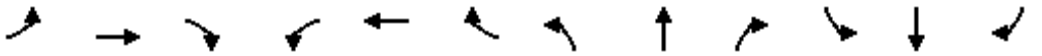


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	280	730	160	130	950	20	250	210	210	10	160	420
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.93		1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3444		1770	3528		1770	1723		1770	1660	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3444		1770	3528		1770	1723		1770	1660	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	304	793	174	141	1033	22	272	228	228	11	174	457
RTOR Reduction (vph)	0	19	0	0	1	0	0	32	0	0	95	0
Lane Group Flow (vph)	304	948	0	141	1054	0	272	424	0	11	536	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	15.0	31.0		9.8	25.8		16.2	42.4		0.8	27.0	
Effective Green, g (s)	15.0	31.0		9.8	25.8		16.2	42.4		0.8	27.0	
Actuated g/C Ratio	0.15	0.31		0.10	0.26		0.16	0.42		0.01	0.27	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	265	1067		173	910		286	730		14	448	
v/s Ratio Prot	c0.17	0.28		0.08	c0.30		c0.15	0.25		0.01	c0.32	
v/s Ratio Perm												
v/c Ratio	1.15	0.89		0.82	1.16		0.95	0.58		0.79	1.20	
Uniform Delay, d1	42.5	32.8		44.2	37.1		41.5	22.0		49.5	36.5	
Progression Factor	0.93	0.90		1.11	0.87		1.00	1.00		1.00	1.00	
Incremental Delay, d2	99.6	10.5		20.6	81.2		40.0	1.2		130.6	108.4	
Delay (s)	138.9	40.0		69.6	113.4		81.5	23.2		180.1	144.9	
Level of Service	F	D		E	F		F	C		F	F	
Approach Delay (s)		63.6			108.3			45.0			145.5	
Approach LOS		E			F			D			F	

Intersection Summary			
HCM 2000 Control Delay	87.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	103.8%	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)	50	910	210	20	800	70	110	410	40	70	380	40
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	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.97		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	3440		1770	3497			1827			1829	
Flt Permitted	0.20	1.00		0.20	1.00			0.81			0.87	
Satd. Flow (perm)	363	3440		363	3497			1487			1600	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	989	228	22	870	76	120	446	43	76	413	43
RTOR Reduction (vph)	0	39	0	0	13	0	0	6	0	0	6	0
Lane Group Flow (vph)	54	1178	0	22	933	0	0	603	0	0	526	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	20.5	20.5		20.5	20.5			21.5			21.5	
Effective Green, g (s)	20.5	20.5		20.5	20.5			21.5			21.5	
Actuated g/C Ratio	0.41	0.41		0.41	0.41			0.43			0.43	
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)	148	1410		148	1433			639			688	
v/s Ratio Prot		c0.34			0.27							
v/s Ratio Perm	0.15			0.06				c0.41			0.33	
v/c Ratio	0.36	0.84		0.15	0.65			0.94			0.76	
Uniform Delay, d1	10.2	13.2		9.3	11.9			13.7			12.1	
Progression Factor	0.95	1.45		0.58	0.69			1.00			1.00	
Incremental Delay, d2	5.4	4.8		2.0	2.1			22.6			5.0	
Delay (s)	15.1	24.0		7.3	10.3			36.3			17.1	
Level of Service	B	C		A	B			D			B	
Approach Delay (s)		23.6			10.3			36.3			17.1	
Approach LOS		C			B			D			B	

Intersection Summary			
HCM 2000 Control Delay	21.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



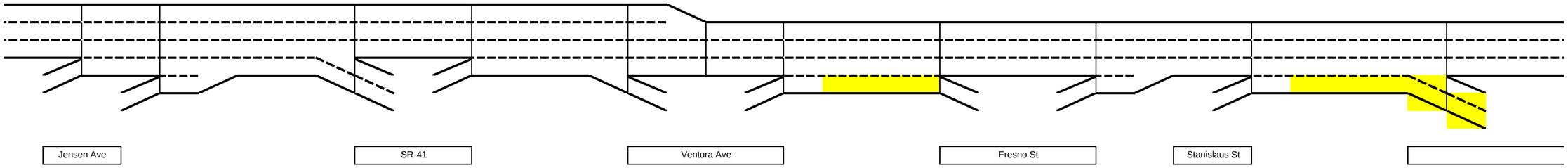
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	760	140	20	630	170	120	250	30	90	410	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.98		1.00	0.97			0.99			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1770	3457		1770	3255			1817			1807	
Flt Permitted	0.23	1.00		0.19	1.00			0.61			0.86	
Satd. Flow (perm)	428	3457		348	3255			1126			1573	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	826	152	22	685	185	130	272	33	98	446	109
RTOR Reduction (vph)	0	17	0	0	27	0	0	3	0	0	8	0
Lane Group Flow (vph)	152	961	0	22	843	0	0	432	0	0	645	0
Parking (#/hr)					0							
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	42.0	42.0		42.0	42.0			40.0			40.0	
Effective Green, g (s)	42.0	42.0		42.0	42.0			40.0			40.0	
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.44			0.44	
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)	199	1613		162	1519			500			699	
v/s Ratio Prot		0.28			0.26							
v/s Ratio Perm	c0.35			0.06				0.38			c0.41	
v/c Ratio	0.76	0.60		0.14	0.55			0.86			0.92	
Uniform Delay, d1	19.9	17.7		13.7	17.3			22.5			23.6	
Progression Factor	0.71	0.76		0.30	0.36			1.00			1.00	
Incremental Delay, d2	23.2	1.6		1.5	1.3			17.7			19.7	
Delay (s)	37.4	15.1		5.6	7.5			40.2			43.2	
Level of Service	D	B		A	A			D			D	
Approach Delay (s)		18.1			7.4			40.2			43.2	
Approach LOS		B			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	23.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

APPENDIX F-2:
TECHNICAL CALCULATIONS –
CUMULATIVE CONDITIONS
FREEWAY LOS

Fresno Downtown Plans
Cumulative Plus Project Conditions with Mitigations
SR-99 Northbound

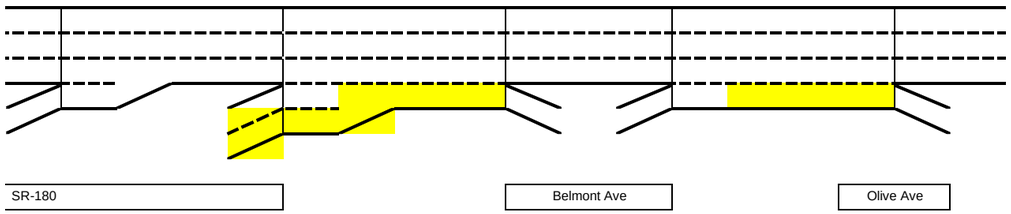


Input Data

Number		1		2			3	4		5		6			8		9		
Type		Merge		Weave			Merge	Diverge		Basic		Weave			Merge		Weave		
Length		1,185		2,760		2,355	725	725	2,095			766		2,170	1,410		1,580		1,810
Mainline Volume	AM	5,740		5,860		3,440	3,440	4,070		3,860		3,860		4,010	4,010		4,580		3,350
	PM	5,920		6,200		4,490	4,490	5,500		5,030		5,030		5,220	5,220		5,890		4,290
Ramp Volume	AM	120	1,200		3,620		630	210				1,190	1,040		570		690	1,920	
	PM	280	1,190		2,900		1,010	470				1,100	910		670		1,020	2,620	

Operations Analysis	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Basic Section (HCM 2010)																
Volume			7,060	7,390			4,070	5,500		3,860	5,030	5,050	6,130		5,270	6,910
PHF			**0.92**	**0.92**			**0.92**	**0.92**		**0.92**	**0.92**	**0.92**	0.92		**0.92**	0.95
Lanes			5	5			4	4		3	3	4	4		4	4
Terrain			Level	Level			Level	Level		Level	Level	Level	Level		Level	Level
Truck/Bus %			9%	7%			10%	7%		10%	7%	11%	6%		11%	6%
RV %			1%	1%			1%	1%		1%	1%	1%	1%		1%	1%
Population Factor			1.00	1.00			1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00
Free Flow Speed			65	65			65	65		65	65	65	65		65	65
Speed			64.9	64.7			65.0	65.0		65.0	63.0	65.0	64.4		65.0	63.2
V/C Ratio			0.68	0.71			0.50	0.66		0.63	0.80	0.62	0.73		0.64	0.80
Density			**24.8**	**25.8**			**17.9**	**23.9**		**22.6**	**30.0**	**22.3**	**26.7**		**23.3**	**29.7**
Level of Service			**C**	**C**			**B**	**C**		**C**	**D**	**C**	**D**		**C**	**D**
Ramp Junction (HCM 2010)																
Mainline Lanes	3	3					3	3	4	4					3	3
Mainline Free Flow Speed	65	65					65	65	65	65					65	65
Mainline Volume	5,740	5,920					3,440	4,490	4,070	5,500					4,010	5,220
Mainline PHF	**0.92**	**0.92**					**0.92**	**0.92**	**0.92**	**0.92**					**0.92**	0.93
Mainline Terrain	Level	Level					Level	Level	Level	Level					Level	Level
Mainline Truck/Bus %	9%	7%					10%	7%	10%	7%					11%	6%
Mainline RV %	1%	1%					1%	1%	1%	1%					1%	1%
Mainline Population Factor	1.00	1.00					1.00	1.00	1.00	1.00					1.00	1.00
Ramp Type	Right	Right					Right	Right	Right	Right					Right	Right
Ramp Lanes	1	1					1	1	1	1					1	1
Ramp Free Flow Speed	25	25					55	55	45	45					45	45
Ramp Volume	120	280					630	1,010	210	470					570	670
Accel/Decel Length	1,185	1,185					725	725	140	140					500	500
Ramp PHF	**0.92**	**0.92**					0.92	0.92	0.92	0.92					0.92	0.92
Ramp Terrain	Level	Level					Level	Level	Level	Level					Level	Level
Ramp Truck/Bus %	8%	5%					15%	8%	5%	2%					5%	2%
Ramp RV %	0%	0%					0%	0%	0%	0%					0%	0%
Ramp Population Factor	1.00	1.00					1.00	1.00	1.00	1.00					1.00	1.00
Speed	54.7	53.5					58.6	54.3	63.8	62.7					57.4	54.7
V/C Ratio	0.93	0.95					0.68	0.95	0.50	0.68					0.74	0.93
Density	**30.2**	**32.1**					**24.9**	**34.7**	**21.6**	**28.7**					**28.3**	**34.5**
Level of Service	**D**	**D**					**C**	**D**	**C**	**D**					**D**	**D**
Weave (Leisch Method)																
Entering Lanes			4	4								3	3			3	3
Ramp to Ramp Volume %			30%	25%								12%	6%			72%	67%
On to ML Truck %			8%	5%								5%	2%			11%	6%
ML to Off Truck %			4%	2%								5%	2%			11%	6%
Balanced Weave Section?			Y	Y								N	N			Y	Y
Service Volume			1,880	1,925								1,847	2,004			1,488	1,885
V/C Ratio			0.99	1.01								0.97	1.05			0.78	0.99
Level of Service			**E**	**F**								**E**	**F**			**D**	**E**

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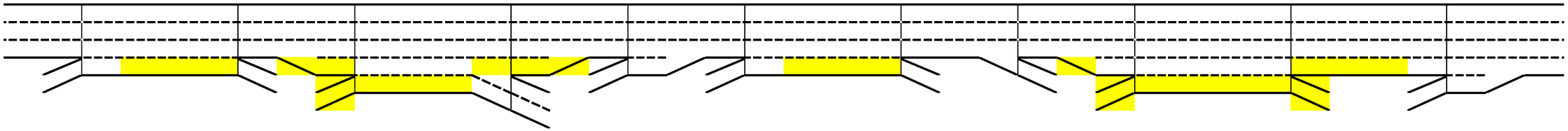


Input Data

Number		11		12			14		
Type		Merge		Weave			Weave		
Length		1,900		1,890		1,545	1,040		
Mainline Volume	AM	3,350		4,410		6,280	6,280		
	PM	4,290		5,130		7,040	7,040		
Ramp Volume	AM	1,060		2,400	530		420	350	
	PM	840		2,390	480		690	430	

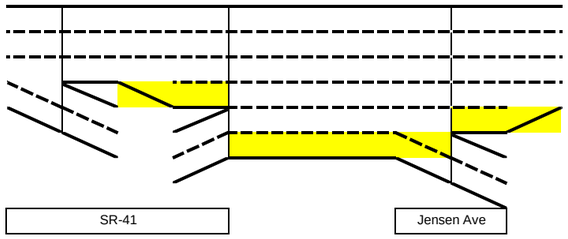
Operations Analysis	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Basic Section (HCM 2010)						
Volume			6,810	7,520	6,700	7,730
PHF			**0.92**	0.97	**0.92**	0.97
Lanes			4	4	4	4
Terrain			Level	Level	Level	Level
Truck/Bus %			12%	5%	12%	5%
RV %			1%	1%	1%	1%
Population Factor			1.00	1.00	1.00	1.00
Free Flow Speed			65	65	65	65
Speed			62.0	61.6	62.5	60.6
V/C Ratio			0.84	0.85	0.82	0.87
Density			**31.7**	**32.3**	**31.0**	**33.8**
Level of Service			**D**	**D**	**D**	**D**
Ramp Junction (HCM 2010)						
Mainline Lanes	3	3				
Mainline Free Flow Speed	65	65				
Mainline Volume	3,350	4,290				
Mainline PHF	**0.92**	0.96				
Mainline Terrain	Level	Level				
Mainline Truck/Bus %	11%	6%				
Mainline RV %	1%	1%				
Mainline Population Factor	1.00	1.00				
Ramp Type	Right	Right				
Ramp Lanes	1	1				
Ramp Free Flow Speed	25	25				
Ramp Volume	1,060	840				
Accel/Decel Length	350	350				
Ramp PHF	0.92	0.95				
Ramp Terrain	Level	Level				
Ramp Truck/Bus %	2%	2%				
Ramp RV %	0%	0%				
Ramp Population Factor	1.00	1.00				
Speed	57.0	56.4				
V/C Ratio	0.74	0.78				
Density	**29.5**	**31.0**				
Level of Service	**D**	**D**				
Weave (Leisch Method)						
Entering Lanes			3	3	3	3
Ramp to Ramp Volume %			18%	26%	6%	5%
On to ML Truck %			6%	5%	16%	6%
ML to Off Truck %			13%	8%	15%	7%
Balanced Weave Section?			Y	Y	N	N
Service Volume			1,841	2,141	1,915	2,164
V/C Ratio			0.97	1.13	1.01	1.14
Level of Service			**E**	**F**	**F**	**F**

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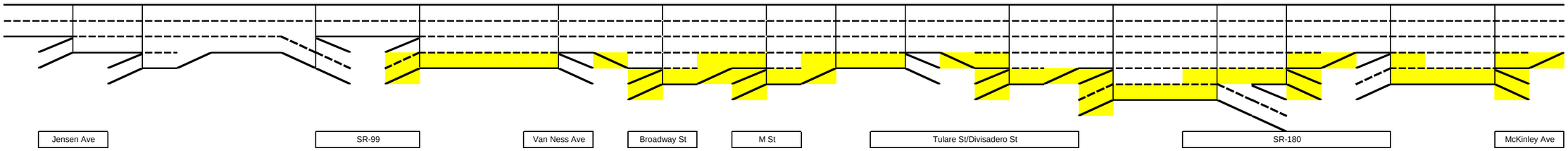
Input Data																									
Number			51				53				54			55			57			58				59	
Type			Weave				Weave				Merge			Weave			Diverge			Weave				Weave	
Length			1,195		1,950		1,510		2,145		1,020			2,370			1,540		1,935	725		1,010	1,335	1,315	
Mainline Volume	AM		7,030		7,210		7,210		3,950		3,950			5,000			5,680		5,070	5,070		4,550		4,550	
	PM		6,710		6,720		6,720		4,190		4,190			5,030			5,080		4,600	4,600		4,250		4,250	
Ramp Volume	AM		610	430			910	4,170			1,050			1,420	740		610			570	1,090			400	810
	PM		370	360			980	3,510			840			670	620		480			770	1,120			240	590
Operations Analysis			**AM**	**PM**			**AM**	**PM**			**AM**	**PM**		**AM**	**PM**		**AM**	**PM**		**AM**	**PM**			**AM**	**PM**
Basic Section (HCM 2010)																									
Volume			7,640	7,080			8,120	7,700						6,420	5,700					5,640	5,370			4,950	4,490
PHF			0.94	**0.92**			0.94	**0.92**						0.94	**0.92**					0.94	**0.92**			0.94	**0.92**
Lanes			4	4			5	5						4	4					5	5			4	4
Terrain			Level	Level			Level	Level						Level	Level					Level	Level			Level	Level
Truck/Bus %			8%	11%			8%	11%						8%	10%					8%	10%			8%	9%
RV %			1%	1%			1%	1%						1%	1%					1%	1%			1%	1%
Population Factor			1.00	1.00			1.00	1.00						1.00	1.00					1.00	1.00			1.00	1.00
Free Flow Speed			65	65			65	65						65	65					65	65			65	65
Speed			59.1	60.9			63.9	64.1						64.1	64.8					65.0	65.0			65.0	65.0
V/C Ratio			0.90	0.87			0.77	0.75						0.76	0.69					0.53	0.52			0.58	0.54
Density			**35.8**	**33.4**			**28.2**	**27.6**						**27.8**	**25.1**					**19.2**	**18.9**			**21.1**	**19.7**
Level of Service			**E**	**D**			**D**	**D**						**D**	**C**					**C**	**C**			**C**	**C**
Ramp Junction (HCM 2010)																									
Mainline Lanes											3	3					3	3							
Mainline Free Flow Speed											65	65					65	65							
Mainline Volume											3,950	4,190					5,680	5,080							
Mainline PHF											0.94	**0.92**					0.94	**0.92**							
Mainline Terrain											Level	Level					Level	Level							
Mainline Truck/Bus %											8%	10%					8%	10%							
Mainline RV %											1%	1%					1%	1%							
Mainline Population Factor											1.00	1.00					1.00	1.00							
Ramp Type											Right	Right					Right	Right							
Ramp Lanes											1	1					1	1							
Ramp Free Flow Speed											25	25					45	45							
Ramp Volume											1,050	840					610	480							
Accel/Decel Length											450	450					140	140							
Ramp PHF											0.92	0.92					0.92	0.92							
Ramp Terrain											Level	Level					Level	Level							
Ramp Truck/Bus %											5%	4%					2%	4%							
Ramp RV %											0%	0%					0%	0%							
Ramp Population Factor											1.00	1.00					1.00	1.00							
Speed											56.1	56.0					59.9	60.3							
V/C Ratio											0.82	0.82					0.89	0.83							
Density											**31.4**	**31.5**					**36.4**	**34.4**							
Level of Service											**D**	**D**					**E**	**D**							
Weave (Leisch Method)																									
Entering Lanes			3	3			4	4						3	3					4	4			4	4
Ramp to Ramp Volume %			5%	3%			54%	40%						9%	7%					23%	15%			11%	20%
On to ML Truck %			12%	8%			17%	4%						7%	10%					5%	7%			5%	7%
ML to Off Truck %			7%	13%			5%	3%						2%	4%					2%	4%			5%	3%
Balanced Weave Section?			N	N			Y	Y						N	N					N	N			Y	Y
Service Volume			2,151	1,919			-	2,030						1,974	1,537					1,394	1,402			1,385	1,280
V/C Ratio			1.13	1.01			-	1.07						1.04	0.81					0.73	0.74			0.73	0.67
Level of Service			**F**	**F**			**F**	**F**						**F**	**D**					**C**	**C**			**C**	**C**

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Input Data				
Number			60	
Type			Weave	
Length		2,610	1,850	
Mainline Volume	AM	4,140	4,140	
	PM	3,900	3,900	
Ramp Volume	AM		3,010	1,040
	PM		3,220	930
Operations Analysis			**AM**	**PM**
Basic Section (HCM 2010)				
Volume			7,150	7,120
PHF			0.94	**0.92**
Lanes			6	6
Terrain			Level	Level
Truck/Bus %			8%	8%
RV %			1%	1%
Population Factor			1.00	1.00
Free Flow Speed			65	65
Speed			65.0	65.0
V/C Ratio			0.56	0.57
Density			**20.3**	**20.7**
Level of Service			**C**	**C**
Ramp Junction (HCM 2010)				
Mainline Lanes				
Mainline Free Flow Speed				
Mainline Volume				
Mainline PHF				
Mainline Terrain				
Mainline Truck/Bus %				
Mainline RV %				
Mainline Population Factor				
Ramp Type				
Ramp Lanes				
Ramp Free Flow Speed				
Ramp Volume				
Accel/Decel Length				
Ramp PHF				
Ramp Terrain				
Ramp Truck/Bus %				
Ramp RV %				
Ramp Population Factor				
Speed				
V/C Ratio				
Density				
Level of Service				
Weave (Leisch Method)				
Entering Lanes			4	4
Ramp to Ramp Volume %			20%	15%
On to ML Truck %			3%	2%
ML to Off Truck %			2%	4%
Balanced Weave Section?			Y	Y
Service Volume			1,480	1,387
V/C Ratio			0.78	0.73
Level of Service			**D**	**C**

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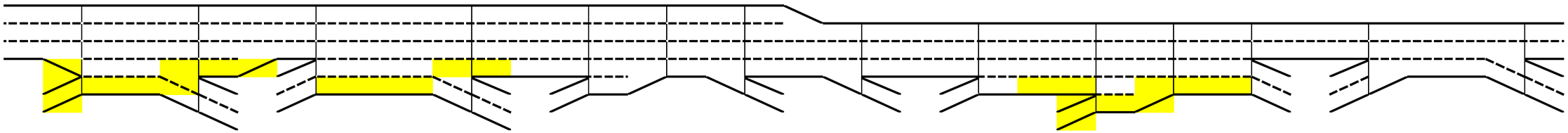


Input Data

		101		102		103		105		106		107		108		109		110		111	
Number																					
Type		Merge		Weave		Weave		Merge		Merge		Diverge		Merge		Weave		Diverge		Weave	
Length		815		1,915		2,040		1,405		1,370		1,370		1,070		1,720		820		1,550	
Mainline Volume	AM	2,310		3,280		2,930		5,680		5,810		6,320		5,780		6,000		4,190		3,780	
	PM	2,890		3,920		3,350		5,660		6,070		7,000		6,540		7,510		5,320		4,640	
Ramp Volume	AM	970	280	630		3,620	870	130		510		540		220	920	2,730		410		4,130	1,190
	PM	1,030	440	1,010		2,900	590	410		930		460		970	1,410	3,600		680		3,600	1,520

Operations Analysis	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Basic Section (HCM 2010)																				
Volume			3,560	4,360	6,550	6,250					6,320	7,000			6,920	8,920			7,910	8,240
PHF			**0.92**	0.96	**0.92**	0.96					**0.92**	0.96			**0.92**	0.96			**0.92**	0.96
Lanes			3	3	4	4					4	4			6	6			5	5
Terrain			Level	Level	Level	Level					Level	Level			Level	Level			Level	Level
Truck/Bus %			3%	2%	3%	2%					3%	2%			3%	2%			3%	2%
RV %			0%	0%	0%	0%					0%	0%			0%	0%			0%	0%
Population Factor			1.00	1.00	1.00	1.00					1.00	1.00			1.00	1.00			1.00	1.00
Free Flow Speed			65	65	65	65					65	65			65	65			65	65
Speed			65.0	65.0	63.8	64.8					64.3	63.5			65.0	64.9			64.3	64.4
V/C Ratio			0.56	0.65	0.77	0.70					0.74	0.78			0.54	0.67			0.74	0.74
Density			**20.1**	**23.5**	**28.3**	**25.4**					**27.1**	**29.0**			**19.6**	**24.1**			**27.1**	**26.9**
Level of Service			**C**	**C**	**D**	**C**					**D**	**D**			**C**	**C**			**D**	**D**
Ramp Junction (HCM 2010)																				
Mainline Lanes	2	2						4	4	4	4	4	4	4	4			5	5		
Mainline Free Flow Speed	65	65						65	65	65	65	65	65	65	65			65	65		
Mainline Volume	2,310	2,890						5,680	5,660	5,810	6,070	6,320	7,000	5,780	6,540			4,190	5,320		
Mainline PHF	**0.92**	0.96						**0.92**	0.96	**0.92**	0.96	**0.92**	0.96	**0.92**	0.96			**0.92**	0.96		
Mainline Terrain	Level	Level						Level	Level	Level	Level	Level	Level	Level	Level			Level	Level		
Mainline Truck/Bus %	3%	2%						3%	2%	3%	2%	3%	2%	3%	2%			3%	2%		
Mainline RV %	0%	0%						0%	0%	0%	0%	0%	0%	0%	0%			0%	0%		
Mainline Population 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		
Ramp Type	Right	Right						Right	Right	Right	Right	Right	Right	Right	Right			Right	Right		
Ramp Lanes	1	1						1	1	1	1	1	1	1	1			1	1		
Ramp Free Flow Speed	25	25						45	45	45	45	45	45	25	25			25	25		
Ramp Volume	970	1,030						130	410	510	930	540	460	220	970			410	680		
Accel/Decel Length	815	815						250	250	350	350	1,370	1,370	350	350			820	820		
Ramp PHF	**0.92**	**0.92**						0.92	0.92	0.92	0.92	0.92	0.95	0.92	0.92			0.92	0.96		
Ramp Terrain	Level	Level						Level	Level	Level	Level	Level	Level	Level	Level			Level	Level		
Ramp Truck/Bus %	4%	2%						4%	2%	4%	2%	4%	2%	4%	2%			6%	2%		
Ramp RV %	0%	0%						0%	0%	0%	0%	0%	0%	0%	0%			0%	0%		
Ramp Population 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		
Speed	55.2	52.7						58.7	58.6	58.2	57.5	62.2	62.2	58.4	56.6			59.6	58.6		
V/C Ratio	0.79	0.91						0.68	0.68	0.74	0.79	0.90	0.98	0.68	0.83			0.47	0.56		
Density	**28.1**	**32.4**						**24.5**	**25.8**	**27.4**	**30.7**	**21.0**	**21.9**	**25.0**	**32.6**			**14.7**	**18.2**		
Level of Service	**D**	**D**						**C**	**C**	**C**	**D**	**C**	**C**	**C**	**D**			**B**	**B**		
Weave (Leisch Method)																				
Entering Lanes			3	3	2	2									4	4			3	3
Ramp to Ramp Volume %			20%	25%	16%	10%									29%	35%			17%	19%
On to ML Truck %			4%	2%	4%	2%									4%	2%			2%	2%
ML to Off Truck %			15%	8%	4%	2%									8%	2%			4%	2%
Balanced Weave Section?			Y	Y	N	N									Y	Y			N	N
Service Volume			1,397	1,202	1,811	1,471									1,511	1,870			1,932	2,036
V/C Ratio			0.74	0.63	0.95	0.77									0.80	0.98			1.02	1.07
Level of Service			**D**	**C**	**E**	**D**									**D**	**E**			**F**	**F**

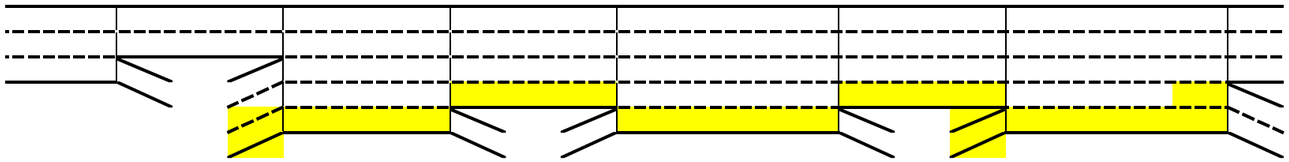
Fresno Downtown Plans
Cumulative Plus Project Conditions with Mitigations
SR-41 Southbound



Input Data

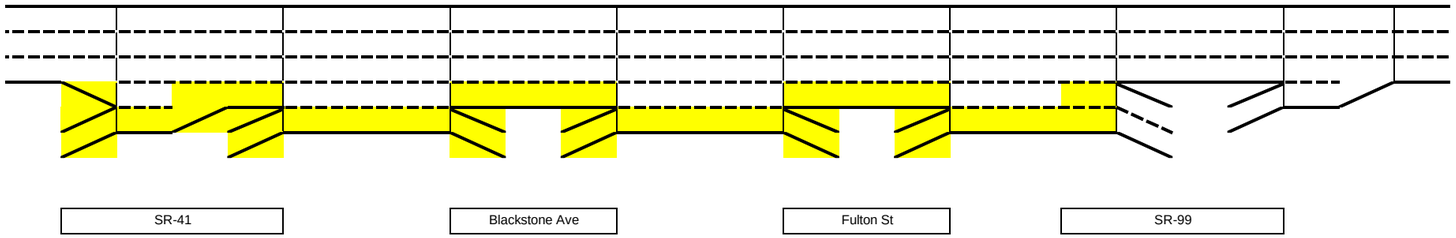
Number				151						152					153		154		155				156		157	158			159								
Type				Weave						Weave					Merge		Diverge		Diverge				Merge		Merge	Diverge			Weave								
Length				1,780		4,150				1,485		2,295			775		775		1,650		1,400		410		1,175	1,175		2,490		1,520							
Mainline Volume	AM			7,260		4,890				4,890		6,590			6,590		7,250		6,220		5,070		5,070		5,380	5,680		2,670		2,670							
	PM			6,350		3,810				3,810		5,620			5,620		6,200		5,760		5,170		5,170		5,570	5,980		2,760		2,760							
Ramp Volume	AM		1,160		3,530				3,810		2,110				660		1,030		1,150				310		300	3,010			810		1,170						
	PM		1,130		3,670				3,130		1,320				580		440		590				400		410	3,220			590		1,350						
Operations Analysis			**AM**	**PM**					**AM**	**PM**				**AM**	**PM**	**AM**	**PM**	**AM**	**PM**			**AM**	**PM**	**AM**	**PM**				**AM**	**PM**							
Basic Section (HCM 2010)																																					
Volume			8,420	7,480					8,700	6,940						7,250	6,200						5,680	5,980				3,480	3,350							
PHF			**0.92**	0.98					**0.92**	0.98						**0.92**	0.98						**0.92**	0.98				**0.92**	0.98							
Lanes			5	5					5	5						4	4						4	4				3	3							
Terrain			Level	Level					Level	Level						Level	Level						Level	Level				Level	Level							
Truck/Bus %			3%	2%					3%	2%						3%	2%						3%	2%				3%	2%							
RV %			0%	0%					0%	0%						0%	0%						0%	0%				0%	0%							
Population Factor			1.00	1.00					1.00	1.00						1.00	1.00						1.00	1.00				1.00	1.00							
Free Flow Speed			65	65					65	65						65	65						65	65				65	65							
Speed			63.4	65.0					62.6	65.0						61.5	64.9						64.9	65.0				65.0	65.0							
V/C Ratio			0.79	0.66					0.82	0.61						0.85	0.68						0.67	0.66				0.54	0.49							
Density			**29.3**	**23.7**					**30.6**	**22.0**						**32.5**	**24.6**						**24.1**	**23.7**				**19.7**	**17.7**							
Level of Service			**D**	**C**					**D**	**C**						**D**	**C**						**C**	**C**				**C**	**B**							
Ramp Junction (HCM 2010)																																					
Mainline Lanes														4	4	4	4	3	3			3	3	4	4	4	4									
Mainline Free Flow Speed														65	65	65	65	65	65			65	65	65	65	65	65									
Mainline Volume														6,590	5,620	7,250	6,200	6,220	5,760			5,070	5,170	5,380	5,570	5,680	5,980									
Mainline PHF														**0.92**	0.98	**0.92**	0.98	**0.92**	0.98			**0.92**	0.98	**0.92**	0.98	**0.92**	0.98									
Mainline Terrain														Level	Level	Level	Level	Level	Level			Level	Level	Level	Level	Level	Level									
Mainline Truck/Bus %														3%	2%	3%	2%	3%	2%			3%	2%	3%	2%	3%	2%									
Mainline RV %														0%	0%	0%	0%	0%	0%			0%	0%	0%	0%	0%	0%									
Mainline Population 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									
Ramp Type														Right	Right	Right	Right	Right	Right			Right	Right	Right	Right	Major	Major									
Ramp Lanes														1	1	1	1	1	1			1	1	1	1	2	2									
Ramp Free Flow Speed														45	45	45	45	45	45			45	45	25	25	50	50									
Ramp Volume														660	580	1,030	440	1,150	590			310	400	300	410	3,010	3,220									
Accel/Decel Length														350	350	140	140	140	140			350	350	700	700	1,175	1,175									
Ramp PHF														0.94	0.92	0.94	0.92	0.92	0.92			0.92	0.92	0.92	0.92	0.92	0.92									
Ramp Terrain														Level	Level	Level	Level	Level	Level			Level	Level	Level	Level	Level	Level									
Ramp Truck/Bus %														3%	2%	2%	4%	3%	2%			3%	2%	3%	2%	3%	2%									
Ramp RV %														0%	0%	0%	0%	0%	0%			0%	0%	0%	0%	0%	0%									
Ramp Population 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									
Speed														57.1	58.7	61.0	62.6	58.8	60.1			56.3	56.5	58.5	58.7	57.9	57.1									
V/C Ratio														0.85	0.68	0.93	0.70	0.97	0.85			0.79	0.78	0.70	0.69	0.93	0.96									
Density														**31.2**	**26.0**	**38.4**	**29.3**	**39.4**	**35.0**			**31.4**	**30.9**	**26.1**	**25.6**	**17.1**	**16.8**									
Level of Service														**D**	**C**	**E**	**D**	**E**	**E**			**D**	**D**	**C**	**C**	**B**	**B**									
Weave (Leisch Method)																																					
Entering Lanes			4	4					3	3																		2	2							
Ramp to Ramp Volume %			32%	30%					38%	31%																		26%	15%							
On to ML Truck %			3%	2%					2%	3%																		5%	3%							
ML to Off Truck %			3%	2%					3%	2%																		3%	3%							
Balanced Weave Section?			Y	Y					Y	Y																		Y	Y							
Service Volume			2,045	1,881					2,026	1,639																		1,207	1,545							
V/C Ratio			1.08	0.99					1.07	0.86																		0.64	0.81							
Level of Service			**F**	**E**					**F**	**E**																		**C**	**D**							

Fresno Downtown Plans
Cumulative Plus Project Conditions with Mitigations
SR-180 Eastbound



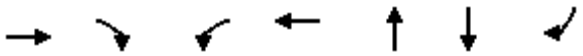
				SR-99				Fulton St / Van Ness Ave				Abby St				SR-41			
Input Data																			
Number		201				202				203				204					
Type		Diverge				Weave				Weave				Weave					
Length		1,500		4,070		1,380		2,580		1,655		1,245		1,600					
Mainline Volume	AM	7,360		4,880		4,880		8,470		8,470		8,130		8,130					
	PM	5,500		3,990		3,990		7,400		7,400		7,790		7,790					
Ramp Volume	AM	2,480			4,840		1,250			600	940			460	2,020				
	PM	1,510			4,610		1,200			1,190	800			1,020	2,140				
Operations Analysis		**AM**	**PM**			**AM**	**PM**			**AM**	**PM**			**AM**	**PM**				
Basic Section (HCM 2010)																			
Volume						9,720	8,600			9,070	8,590			8,590	8,810				
PHF						0.92	0.93			**0.92**	0.95			**0.92**	0.97				
Lanes						5	5			5	5			5	5				
Terrain						Level	Level			Level	Level			Level	Level				
Truck/Bus %						3%	2%			3%	2%			3%	2%				
RV %						0%	0%			0%	0%			0%	0%				
Population Factor						1.00	1.00			1.00	1.00			1.00	1.00				
Free Flow Speed						65	65			65	65			65	65				
Speed						58.5	63.3			61.4	63.7			62.9	63.6				
V/C Ratio						0.91	0.79			0.85	0.78			0.81	0.78				
Density						**36.7**	**29.4**			**32.6**	**28.7**			**30.1**	**28.8**				
Level of Service						**E**	**D**			**D**	**D**			**D**	**D**				
Ramp Junction (HCM 2010)																			
Mainline Lanes		3	3																
Mainline Free Flow Speed		65	65																
Mainline Volume		7,360	5,500																
Mainline PHF		0.95	0.95																
Mainline Terrain		Level	Level																
Mainline Truck/Bus %		3%	2%																
Mainline RV %		0%	0%																
Mainline Population Factor		1.00	1.00																
Ramp Type		Right	Right																
Ramp Lanes		1	1																
Ramp Free Flow Speed		50	50																
Ramp Volume		2,480	1,510																
Accel/Decel Length		1,500	1,500																
Ramp PHF		0.92	0.94																
Ramp Terrain		Level	Level																
Ramp Truck/Bus %		3%	2%																
Ramp RV %		0%	0%																
Ramp Population Factor		1.00	1.00																
Speed		-	59.6																
V/C Ratio		1.30	0.90																
Density		**-**	**24.3**																
Level of Service		**F**	**C**																
Weave (Leisch Method)																			
Entering Lanes						2	2			4	4			4	4				
Ramp to Ramp Volume %						25%	20%			2%	1%			33%	30%				
On to ML Truck %						2%	2%			3%	2%			3%	2%				
ML to Off Truck %						3%	2%			3%	2%			6%	2%				
Balanced Weave Section?						N	N			N	N			N	N				
Service Volume						-	-			2,126	1,969			2,120	2,066				
V/C Ratio						-	-			1.12	1.04			1.12	1.09				
Level of Service						**F**	**F**			**F**	**F**			**F**	**F**				

Fresno Downtown Plans
Cumulative Plus Project Conditions with Mitigations
SR-180 Westbound



Input Data																							
Number			251			252					253					254					255		
Type			Merge			Weave					Weave					Weave					Merge		
Length			705			2,840			1,240		1,730			1,370		2,860			4,160		1,500		
Mainline Volume	AM		5,830			6,240			6,400		6,400			5,960		5,960			2,830		2,830		
	PM		6,170			6,850			7,270		7,270			7,420		7,420			5,180		5,180		
Ramp Volume	AM		410		1,340		1,180		540		980			320		3,450					1,250		
	PM		680		1,410		990		920		770			990		3,230					1,520		
Operations Analysis			**AM**	**PM**		**AM**	**PM**				**AM**	**PM**				**AM**	**PM**				**AM**	**PM**	
Basic Section (HCM 2010)																							
Volume						7,580	8,260				6,940	8,190				6,280	8,410						
PHF						**0.92**	0.96				**0.92**	0.95				**0.92**	0.94						
Lanes						5	5				5	5				5	5						
Terrain						Level	Level				Level	Level				Level	Level						
Truck/Bus %						2%	4%				2%	4%				2%	4%						
RV %						0%	0%				0%	0%				0%	0%						
Population Factor						1.00	1.00				1.00	1.00				1.00	1.00						
Free Flow Speed						65	65				65	65				65	65						
Speed						64.7	64.2				65.0	64.2				65.0	63.7						
V/C Ratio						0.71	0.75				0.65	0.75				0.59	0.78						
Density						**25.7**	**27.3**				**23.4**	**27.4**				**21.2**	**28.7**						
Level of Service						**C**	**D**				**C**	**D**				**C**	**D**						
Ramp Junction (HCM 2010)																							
Mainline Lanes			4	4																	3	3	
Mainline Free Flow Speed			65	65																	65	65	
Mainline Volume			5,830	6,170																	2,830	5,180	
Mainline PHF			**0.92**	0.96																	**0.92**	0.93	
Mainline Terrain			Level	Level																	Level	Level	
Mainline Truck/Bus %			2%	4%																	2%	4%	
Mainline RV %			0%	0%																	0%	0%	
Mainline Population Factor			1.00	1.00																	1.00	1.00	
Ramp Type			Right	Right																	Right	Right	
Ramp Lanes			1	1																	1	1	
Ramp Free Flow Speed			50	50																	50	50	
Ramp Volume			410	680																	1,250	1,520	
Accel/Decel Length			350	350																	450	450	
Ramp PHF			0.92	0.92																	0.92	0.92	
Ramp Terrain			Level	Level																	Level	Level	
Ramp Truck/Bus %			6%	2%																	2%	2%	
Ramp RV %			0%	0%																	0%	0%	
Ramp Population Factor			1.00	1.00																	1.00	1.00	
Speed			58.4	57.9																	58.0	-	
V/C Ratio			0.68	0.73																	0.70	1.09	
Density			**26.6**	**29.2**																	**27.0**	**-**	
Level of Service			**C**	**D**																	**C**	**F**	
Weave (Leisch Method)																							
Entering Lanes						4	4				4	4				4	4						
Ramp to Ramp Volume %						9%	9%				4%	4%				53%	39%						
On to ML Truck %						3%	3%				2%	4%				2%	4%						
ML to Off Truck %						2%	4%				2%	4%				5%	5%						
Balanced Weave Section?						N	N				N	N				N	N						
Service Volume						1,796	1,978				1,622	1,919				1,344	2,091						
V/C Ratio						0.95	1.04				0.85	1.01				0.71	1.10						
Level of Service						**E**	**F**				**D**	**F**				**C**	**F**						

APPENDIX F-3:
TECHNICAL CALCULATIONS –
CUMULATIVE CONDITIONS
FREEWAY RAMP QUEUES



Lane Group	EBT	EBR	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	707	1152	168	432	33	478	43
v/c Ratio	0.80	0.90	0.96	0.26	0.06	0.94	0.08
Control Delay	23.0	13.0	81.9	10.4	9.0	53.4	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.0	13.0	81.9	10.4	9.0	53.4	10.2
Queue Length 50th (ft)	250	13	69	54	3	210	6
Queue Length 95th (ft)	#411	#462	#193	81	20	#395	26
Internal Link Dist (ft)	740			270	212	971	
Turn Bay Length (ft)							50
Base Capacity (vph)	938	1296	185	1783	561	529	585
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	0.89	0.91	0.24	0.06	0.90	0.07

Intersection Summary

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

Lane Group	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	1206	790	272	359
v/c Ratio	0.82	0.47	0.46	0.64
Control Delay	17.2	4.4	16.8	19.1
Queue Delay	0.6	0.0	0.0	0.0
Total Delay	17.8	4.4	16.8	19.1
Queue Length 50th (ft)	154	29	68	82
Queue Length 95th (ft)	228	57	126	#169
Internal Link Dist (ft)	270	750	806	
Turn Bay Length (ft)				325
Base Capacity (vph)	1618	1813	594	564
Starvation Cap Reductn	130	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.81	0.44	0.46	0.64

Intersection Summary

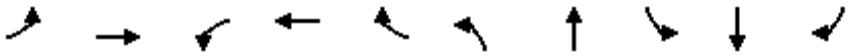
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBL	WBT	NBL
Lane Group Flow (vph)	1174	326	772	641
v/c Ratio	0.81	1.73	0.54	0.91
Control Delay	16.4	370.8	10.8	32.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	16.4	370.8	10.8	32.0
Queue Length 50th (ft)	105	~117	65	116
Queue Length 95th (ft)	#211	#198	103	#285
Internal Link Dist (ft)	531		1779	431
Turn Bay Length (ft)				
Base Capacity (vph)	1443	188	1432	728
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.81	1.73	0.54	0.88

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	SBL	SBT	SBR
Lane Group Flow (vph)	359	598	54	293	141	141	120	413	348	641
v/c Ratio	0.88	0.43	0.40	0.55	0.26	0.20	0.09	0.84	0.25	0.70
Control Delay	57.3	10.1	42.3	26.3	10.1	15.6	11.6	37.9	15.6	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.3	10.1	42.3	26.3	10.1	15.6	11.6	37.9	15.6	9.5
Queue Length 50th (ft)	86	55	24	113	18	21	14	168	55	50
Queue Length 95th (ft)	#159	98	59	188	57	40	30	#330	83	165
Internal Link Dist (ft)		1779		560			504		596	
Turn Bay Length (ft)			300		40	100		70		85
Base Capacity (vph)	408	1407	136	534	541	712	1338	494	1415	918
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	0.88	0.43	0.40	0.55	0.26	0.20	0.09	0.84	0.25	0.70

Intersection Summary

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



Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Group Flow (vph)	391	217	43	587	881
v/c Ratio	0.61	0.32	0.18	0.88	0.48
Control Delay	26.3	7.0	19.6	40.8	15.7
Queue Delay	0.2	0.0	0.0	1.5	0.1
Total Delay	26.4	7.1	19.6	42.2	15.7
Queue Length 50th (ft)	174	25	19	272	160
Queue Length 95th (ft)	228	61	m40	452	251
Internal Link Dist (ft)	277			340	540
Turn Bay Length (ft)		100	100		
Base Capacity (vph)	802	808	299	832	1837
Starvation Cap Reductn	0	0	0	105	0
Spillback Cap Reductn	58	4	0	0	114
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.53	0.27	0.14	0.81	0.51

Intersection Summary

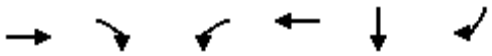
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	33	543	207	33	424	609	98
v/c Ratio	0.08	0.78	0.30	0.05	0.48	0.65	0.12
Control Delay	12.3	24.5	20.2	6.7	17.1	22.2	6.8
Queue Delay	0.0	0.4	0.2	0.0	2.4	2.5	1.0
Total Delay	12.3	24.9	20.4	6.7	19.5	24.7	7.8
Queue Length 50th (ft)	7	295	79	0	223	336	0
Queue Length 95th (ft)	m16	#425	132	18	193	457	m32
Internal Link Dist (ft)		340	361			110	
Turn Bay Length (ft)	100			50			50
Base Capacity (vph)	423	698	698	612	892	930	795
Starvation Cap Reductn	0	18	0	0	333	202	518
Spillback Cap Reductn	0	0	121	0	96	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.80	0.36	0.05	0.76	0.84	0.35

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	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	402	696	11	109	696	326
v/c Ratio	0.73	0.44	0.09	0.18	0.34	0.31
Control Delay	35.8	0.9	28.7	32.5	12.2	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.8	0.9	28.7	32.5	12.2	2.7
Queue Length 50th (ft)	204	0	7	66	94	0
Queue Length 95th (ft)	267	0	m14	122	201	50
Internal Link Dist (ft)	322			290	610	
Turn Bay Length (ft)		110	200			150
Base Capacity (vph)	803	1583	118	1003	2053	1055
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	0.50	0.44	0.09	0.11	0.34	0.31

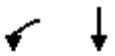
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	NBT
Lane Group Flow (vph)	413	957
v/c Ratio	0.74	0.47
Control Delay	17.1	10.4
Queue Delay	0.0	0.0
Total Delay	17.1	10.4
Queue Length 50th (ft)	24	147
Queue Length 95th (ft)	129	187
Internal Link Dist (ft)	290	625
Turn Bay Length (ft)		
Base Capacity (vph)	743	2045
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.56	0.47

Intersection Summary



Lane Group	WBL	SBT
Lane Group Flow (vph)	283	1392
v/c Ratio	0.71	0.59
Control Delay	22.8	7.0
Queue Delay	0.1	0.1
Total Delay	22.9	7.1
Queue Length 50th (ft)	36	115
Queue Length 95th (ft)	80	153
Internal Link Dist (ft)	265	624
Turn Bay Length (ft)		
Base Capacity (vph)	487	2361
Starvation Cap Reductn	10	0
Spillback Cap Reductn	0	197
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.59	0.64

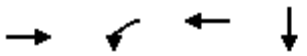
Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	11	196	272	500	457	272
v/c Ratio	0.04	0.33	0.46	0.78	0.22	0.26
Control Delay	25.4	33.6	25.0	23.6	4.3	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.3
Total Delay	25.4	33.6	25.0	23.6	4.5	1.1
Queue Length 50th (ft)	6	123	122	155	14	0
Queue Length 95th (ft)	m8	168	147	213	58	12
Internal Link Dist (ft)		265	346		185	
Turn Bay Length (ft)	175			150		
Base Capacity (vph)	468	1030	1030	965	2046	1030
Starvation Cap Reductn	0	0	0	0	810	302
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.19	0.26	0.52	0.37	0.37

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	543	141	239	1468
v/c Ratio	1.11	1.15	0.33	0.83
Control Delay	105.1	178.9	4.2	18.7
Queue Delay	0.0	0.0	0.3	1.7
Total Delay	105.1	178.9	4.5	20.5
Queue Length 50th (ft)	~353	~99	16	109
Queue Length 95th (ft)	#553	#222	25	239
Internal Link Dist (ft)	400		250	176
Turn Bay Length (ft)		100		
Base Capacity (vph)	491	123	722	1776
Starvation Cap Reductn	0	0	152	164
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.11	1.15	0.42	0.91

Intersection Summary

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

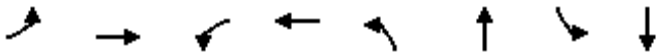
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	141	511	337	120	510	43
v/c Ratio	0.66	0.69	0.72	0.24	0.30	0.05
Control Delay	26.9	15.0	39.1	6.0	16.0	2.4
Queue Delay	0.0	0.8	0.0	0.0	0.0	0.0
Total Delay	26.9	15.7	39.1	6.0	16.0	2.4
Queue Length 50th (ft)	56	129	174	0	90	0
Queue Length 95th (ft)	m59	m89	248	38	145	12
Internal Link Dist (ft)		250	510		555	
Turn Bay Length (ft)	75			125		150
Base Capacity (vph)	261	888	579	575	1706	799
Starvation Cap Reductn	0	144	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	0.54	0.69	0.58	0.21	0.30	0.05

Intersection Summary

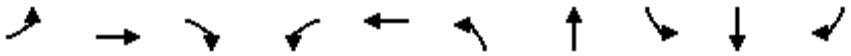
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	130	446	109	423	43	413	98	684
v/c Ratio	0.59	0.73	0.54	0.69	0.26	0.50	0.26	0.83
Control Delay	26.0	21.1	24.5	19.9	13.3	11.2	10.5	21.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	21.1	24.5	19.9	13.3	11.2	10.5	21.5
Queue Length 50th (ft)	28	96	23	92	6	65	14	134
Queue Length 95th (ft)	#87	198	70	188	27	144	44	#348
Internal Link Dist (ft)		430		410		410		430
Turn Bay Length (ft)	200		190		100		100	
Base Capacity (vph)	324	883	297	888	233	1139	526	1132
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.51	0.37	0.48	0.18	0.36	0.19	0.60

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	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	120	272	109	207	424	141	554	130	1098	163
v/c Ratio	0.64	0.45	0.20	0.67	0.71	0.80	0.31	0.31	0.60	0.19
Control Delay	37.2	20.1	9.5	30.8	25.2	50.9	9.3	12.5	12.9	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.2	20.1	9.5	30.8	25.2	50.9	9.3	12.5	12.9	4.1
Queue Length 50th (ft)	41	86	14	72	139	44	60	29	154	9
Queue Length 95th (ft)	#111	147	45	142	231	#153	95	68	227	37
Internal Link Dist (ft)		420			420		420		420	
Turn Bay Length (ft)	200		100	200		200		200		75
Base Capacity (vph)	239	770	689	397	756	200	2036	468	2060	970
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	0.50	0.35	0.16	0.52	0.56	0.70	0.27	0.28	0.53	0.17

Intersection Summary

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



Lane Group	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	500	620	98	924
v/c Ratio	0.76	0.39	0.16	0.48
Control Delay	33.0	0.7	36.1	7.6
Queue Delay	0.0	0.0	0.0	0.3
Total Delay	33.0	0.7	36.1	7.9
Queue Length 50th (ft)	247	0	61	45
Queue Length 95th (ft)	312	0	113	76
Internal Link Dist (ft)	365		338	190
Turn Bay Length (ft)		250		
Base Capacity (vph)	875	1583	810	1936
Starvation Cap Reductn	0	0	0	391
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.57	0.39	0.12	0.60

Intersection Summary



Lane Group	EBL	NBT
Lane Group Flow (vph)	500	728
v/c Ratio	0.79	0.38
Control Delay	28.0	14.4
Queue Delay	2.0	0.3
Total Delay	30.0	14.7
Queue Length 50th (ft)	100	117
Queue Length 95th (ft)	96	241
Internal Link Dist (ft)	338	310
Turn Bay Length (ft)		
Base Capacity (vph)	853	1905
Starvation Cap Reductn	0	562
Spillback Cap Reductn	212	156
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.78	0.54

Intersection Summary



Lane Group	EBT	EBR	SBL	SBT
Lane Group Flow (vph)	522	696	380	957
v/c Ratio	0.29	0.84	0.43	0.70
Control Delay	12.2	27.8	3.1	20.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.2	27.8	3.1	20.4
Queue Length 50th (ft)	77	290	48	255
Queue Length 95th (ft)	103	435	8	339
Internal Link Dist (ft)	431			470
Turn Bay Length (ft)		25	150	
Base Capacity (vph)	1997	903	877	1363
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.77	0.43	0.70

Intersection Summary



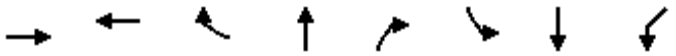
Lane Group	EBL	EBT	NBT	NBR
Lane Group Flow (vph)	511	391	217	380
v/c Ratio	0.63	0.63	0.11	0.36
Control Delay	15.3	31.2	11.0	2.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.3	31.2	11.0	2.7
Queue Length 50th (ft)	103	181	27	0
Queue Length 95th (ft)	82	180	58	49
Internal Link Dist (ft)		395	720	
Turn Bay Length (ft)				125
Base Capacity (vph)	1281	1229	1995	1058
Starvation Cap Reductn	29	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.41	0.32	0.11	0.36

Intersection Summary



Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	957	656	172	717
v/c Ratio	0.56	0.71	0.20	0.66
Control Delay	11.4	16.3	2.1	20.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.4	16.3	2.1	20.7
Queue Length 50th (ft)	113	165	0	110
Queue Length 95th (ft)	161	279	23	162
Internal Link Dist (ft)	208	438		520
Turn Bay Length (ft)				
Base Capacity (vph)	1701	923	859	1087
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.56	0.71	0.20	0.66

Intersection Summary



Lane Group	EBT	WBT	WBR	NBT	NBR2	SBL	SBT	SWL
Lane Group Flow (vph)	22	22	641	359	11	902	859	22
v/c Ratio	0.06	0.06	0.57	0.76	0.04	1.12	1.02	0.09
Control Delay	26.8	33.0	10.9	65.1	0.2	104.2	70.8	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.8	33.0	10.9	65.1	0.2	104.2	70.8	0.8
Queue Length 50th (ft)	7	14	171	153	0	~907	~798	0
Queue Length 95th (ft)	31	m31	223	210	0	#1264	#1166	0
Internal Link Dist (ft)	310	1100		571			552	406
Turn Bay Length (ft)					75			
Base Capacity (vph)	382	364	1132	495	300	805	846	312
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.06	0.57	0.73	0.04	1.12	1.02	0.07

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.



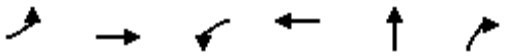
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	913	11	359	43	22	489	946	22
v/c Ratio	1.10	0.19	0.42	0.75	0.03	0.58	1.07	0.03
Control Delay	62.6	35.0	26.4	97.8	7.0	28.5	85.7	11.1
Queue Delay	3.3	0.0	2.8	0.0	0.0	0.0	0.0	0.0
Total Delay	65.9	35.0	29.2	97.8	7.0	28.5	85.7	11.1
Queue Length 50th (ft)	~184	5	179	29	0	293	~885	4
Queue Length 95th (ft)	m139	m16	m251	#107	16	407	#1139	20
Internal Link Dist (ft)	1100		365				400	
Turn Bay Length (ft)		75			60	60		
Base Capacity (vph)	831	57	852	57	760	837	881	755
Starvation Cap Reductn	0	0	372	0	0	0	0	0
Spillback Cap Reductn	284	0	0	0	9	6	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.67	0.19	0.75	0.75	0.03	0.59	1.07	0.03

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	WBL	WBT	NBT	NBR
Lane Group Flow (vph)	11	1149	22	326	564	21
v/c Ratio	0.02	1.02	0.39	0.29	0.99	0.04
Control Delay	8.0	50.0	31.9	9.4	81.0	16.4
Queue Delay	0.0	5.4	0.0	0.0	0.0	0.0
Total Delay	8.0	55.4	31.9	9.4	81.0	16.4
Queue Length 50th (ft)	3	~1035	9	124	474	3
Queue Length 95th (ft)	m4	m#689	m21	m164	#716	23
Internal Link Dist (ft)		365		1209	411	
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	605	1127	56	1141	568	498
Starvation Cap Reductn	0	18	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	0.02	1.04	0.39	0.29	0.99	0.04

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	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	858	228	76	783	130
v/c Ratio	1.03	0.27	0.11	0.56	0.19
Control Delay	60.1	11.5	12.1	16.1	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	60.1	11.5	12.1	16.1	3.5
Queue Length 50th (ft)	~337	49	17	111	0
Queue Length 95th (ft)	#538	89	39	160	27
Internal Link Dist (ft)	330	230		550	
Turn Bay Length (ft)			100		100
Base Capacity (vph)	829	838	696	1392	701
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	1.03	0.27	0.11	0.56	0.19

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	SBL	SBR	SET
Lane Group Flow (vph)	207	402	609	22
v/c Ratio	0.16	0.53	0.83	0.15
Control Delay	28.1	22.6	30.8	29.2
Queue Delay	0.0	3.0	18.5	0.0
Total Delay	28.1	25.6	49.4	29.2
Queue Length 50th (ft)	45	179	281	7
Queue Length 95th (ft)	#128	226	374	28
Internal Link Dist (ft)	349	215		227
Turn Bay Length (ft)				
Base Capacity (vph)	1334	922	869	287
Starvation Cap Reductn	0	402	260	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.16	0.77	1.00	0.08

Intersection Summary

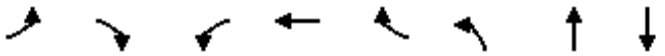
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	631	76	619
v/c Ratio	3.65dl	0.10	0.85
Control Delay	12.0	17.2	37.0
Queue Delay	0.0	0.0	0.0
Total Delay	12.0	17.2	37.0
Queue Length 50th (ft)	58	29	325
Queue Length 95th (ft)	147	51	418
Internal Link Dist (ft)	357	384	409
Turn Bay Length (ft)			
Base Capacity (vph)	1660	876	853
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.38	0.09	0.73

Intersection Summary

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

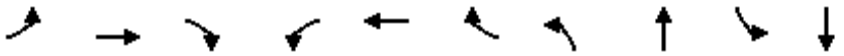


Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	250	11	58	527	78	86	258	500
v/c Ratio	0.84	0.03	0.10	0.90	0.14	0.62	0.39	0.75
Control Delay	57.6	1.0	13.3	42.1	2.1	50.1	26.4	36.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.6	1.0	13.3	42.1	2.1	50.1	26.4	36.8
Queue Length 50th (ft)	169	0	18	387	0	46	123	280
Queue Length 95th (ft)	#284	m2	m26	#578	m6	#124	193	#412
Internal Link Dist (ft)				724			395	398
Turn Bay Length (ft)	150					100		
Base Capacity (vph)	318	333	584	588	574	138	668	666
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.03	0.10	0.90	0.14	0.62	0.39	0.75

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	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	22	11	469	250	135	11	380	130	380
v/c Ratio	0.32	0.07	0.03	1.07	0.32	0.18	0.03	0.82	0.52	0.98
Control Delay	53.4	34.7	0.1	94.3	20.2	2.5	33.5	48.7	47.9	80.7
Queue Delay	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.4	34.7	0.1	98.0	20.2	2.5	33.5	48.7	47.9	80.7
Queue Length 50th (ft)	21	12	0	~330	114	3	6	213	78	238
Queue Length 95th (ft)	52	33	0	#521	142	m18	21	#364	139	#427
Internal Link Dist (ft)		523			314			377		420
Turn Bay Length (ft)	150			75		75	75		150	
Base Capacity (vph)	106	337	417	438	771	747	336	463	251	388
Starvation Cap Reductn	0	0	0	4	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	0.31	0.07	0.03	1.08	0.32	0.18	0.03	0.82	0.52	0.98

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	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	32	484	718	282
v/c Ratio	0.26	0.39	0.52	0.17
Control Delay	49.0	20.2	18.1	7.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	49.0	20.2	18.1	7.0
Queue Length 50th (ft)	20	95	159	24
Queue Length 95th (ft)	49	135	218	47
Internal Link Dist (ft)		387	377	547
Turn Bay Length (ft)	150			
Base Capacity (vph)	141	1243	1388	1641
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.23	0.39	0.52	0.17

Intersection Summary



Lane Group	WBT	WBR	NBT
Lane Group Flow (vph)	473	223	457
v/c Ratio	0.71	0.55	0.34
Control Delay	20.2	10.4	5.4
Queue Delay	0.0	0.0	0.7
Total Delay	20.2	10.4	6.0
Queue Length 50th (ft)	47	17	74
Queue Length 95th (ft)	79	46	159
Internal Link Dist (ft)	182		384
Turn Bay Length (ft)			
Base Capacity (vph)	1389	701	1349
Starvation Cap Reductn	62	35	543
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.36	0.33	0.57

Intersection Summary



Lane Group	WBL	WBT	SBT
Lane Group Flow (vph)	58	300	892
v/c Ratio	0.22	0.63	0.64
Control Delay	5.6	33.5	7.8
Queue Delay	0.0	0.0	0.0
Total Delay	5.6	33.5	7.8
Queue Length 50th (ft)	0	63	187
Queue Length 95th (ft)	12	80	370
Internal Link Dist (ft)		193	669
Turn Bay Length (ft)	150		
Base Capacity (vph)	459	919	1395
Starvation Cap Reductn	0	22	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.13	0.33	0.64

Intersection Summary

Lane Group	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	22	98	467	131	478
v/c Ratio	0.05	0.24	0.41	0.19	0.61
Control Delay	3.9	9.7	6.6	7.4	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.9	9.7	6.6	7.4	11.8
Queue Length 50th (ft)	0	11	18	11	51
Queue Length 95th (ft)	8	34	44	42	153
Internal Link Dist (ft)	207		583	246	405
Turn Bay Length (ft)		275			
Base Capacity (vph)	733	726	1858	892	1006
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	0.03	0.13	0.25	0.15	0.48

Intersection Summary

Lane Group	EBT	SBT
Lane Group Flow (vph)	1359	685
v/c Ratio	0.54	0.50
Control Delay	14.1	18.2
Queue Delay	0.0	0.0
Total Delay	14.1	18.2
Queue Length 50th (ft)	153	121
Queue Length 95th (ft)	194	171
Internal Link Dist (ft)	976	388
Turn Bay Length (ft)		
Base Capacity (vph)	2498	1371
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.54	0.50

Intersection Summary



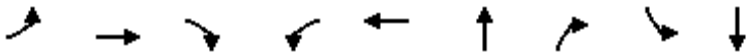
Lane Group	EBT	NBT
Lane Group Flow (vph)	1739	250
v/c Ratio	0.55	0.28
Control Delay	5.9	18.6
Queue Delay	0.3	0.0
Total Delay	6.2	18.6
Queue Length 50th (ft)	130	39
Queue Length 95th (ft)	126	69
Internal Link Dist (ft)	196	515
Turn Bay Length (ft)		
Base Capacity (vph)	3188	878
Starvation Cap Reductn	718	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.70	0.28

Intersection Summary



Lane Group	EBL	EBT	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	402	1130	11	11	326	163
v/c Ratio	0.35	0.49	0.04	0.01	0.37	0.23
Control Delay	3.1	1.3	6.4	2.9	22.4	24.3
Queue Delay	0.3	0.1	0.0	0.0	0.0	0.0
Total Delay	3.4	1.4	6.4	2.9	22.4	24.3
Queue Length 50th (ft)	23	0	2	0	62	34
Queue Length 95th (ft)	36	4	9	5	90	55
Internal Link Dist (ft)		189			898	377
Turn Bay Length (ft)				150		
Base Capacity (vph)	1150	2284	246	1033	1228	1010
Starvation Cap Reductn	303	157	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	0.47	0.53	0.04	0.01	0.27	0.16

Intersection Summary



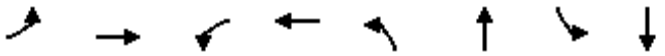
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	323	250	104	87	380	55	33	120	239
v/c Ratio	1.07	0.33	0.15	0.21	0.51	0.25	0.10	1.29	0.47
Control Delay	99.8	17.8	4.0	12.0	13.7	32.5	1.1	220.7	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	99.8	17.8	4.0	12.0	14.0	32.5	1.1	220.7	20.3
Queue Length 50th (ft)	~182	83	0	24	98	24	0	~78	67
Queue Length 95th (ft)	#336	138	28	m36	m120	57	3	#180	134
Internal Link Dist (ft)		339			315	246			377
Turn Bay Length (ft)	100		150	75			100	75	
Base Capacity (vph)	301	759	706	409	747	223	323	93	510
Starvation Cap Reductn	0	0	0	0	84	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	1.07	0.33	0.15	0.21	0.57	0.25	0.10	1.29	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.

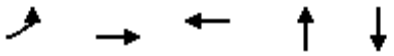
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	11	424	54	196	43	358	54	445
v/c Ratio	0.02	0.50	0.17	0.23	0.30	0.54	0.42	0.69
Control Delay	13.7	17.0	18.5	16.6	40.0	23.0	45.5	27.0
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.7	17.2	18.5	16.6	40.0	23.0	45.5	27.0
Queue Length 50th (ft)	3	161	19	72	21	137	26	177
Queue Length 95th (ft)	m10	m225	m43	132	51	202	62	261
Internal Link Dist (ft)		326		720		401		395
Turn Bay Length (ft)	100		100		150		100	
Base Capacity (vph)	527	841	325	862	154	731	132	703
Starvation Cap Reductn	0	72	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.55	0.17	0.23	0.28	0.49	0.41	0.63

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	54	315	130	33	631
v/c Ratio	0.11	0.43	0.18	0.04	0.76
Control Delay	21.5	21.7	16.5	7.5	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.4
Total Delay	21.5	21.7	16.5	7.5	20.9
Queue Length 50th (ft)	14	81	29	8	216
Queue Length 95th (ft)	m40	174	74	15	246
Internal Link Dist (ft)		720	1104	908	384
Turn Bay Length (ft)	100				
Base Capacity (vph)	499	740	740	1016	1041
Starvation Cap Reductn	0	0	0	0	115
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.11	0.43	0.18	0.03	0.68

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	217	54	33	315	98
v/c Ratio	0.28	0.05	0.04	0.56	0.17
Control Delay	7.2	4.6	5.0	25.5	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.2	4.6	5.0	25.5	19.4
Queue Length 50th (ft)	31	5	2	128	35
Queue Length 95th (ft)	51	m13	15	186	62
Internal Link Dist (ft)		1104	353	897	405
Turn Bay Length (ft)	100				
Base Capacity (vph)	762	1029	926	660	686
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	0.05	0.04	0.48	0.14

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	330	1020	11	848	22	98	152	174	43
v/c Ratio	0.59	0.43	0.14	0.70	0.13	0.28	0.67	0.52	0.11
Control Delay	30.9	7.1	38.1	33.7	30.1	14.3	48.4	38.0	0.6
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay	30.9	7.2	38.1	33.9	30.1	14.3	48.4	38.0	0.6
Queue Length 50th (ft)	156	100	6	248	10	16	81	90	0
Queue Length 95th (ft)	244	212	m14	m182	30	55	139	145	0
Internal Link Dist (ft)		890		346		331		246	
Turn Bay Length (ft)	120		120		115		125		125
Base Capacity (vph)	557	2389	78	1215	220	424	284	418	447
Starvation Cap Reductn	0	0	0	40	0	0	0	0	0
Spillback Cap Reductn	0	83	0	0	0	1	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.44	0.14	0.72	0.10	0.23	0.54	0.42	0.10

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



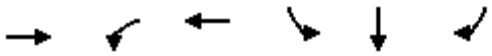
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	22	1283	207	913	163	131	65	33	22
v/c Ratio	0.22	0.71	0.96	0.42	0.84	0.49	0.46	0.16	0.07
Control Delay	50.4	17.3	83.4	7.0	76.2	18.3	50.0	35.7	0.4
Queue Delay	0.0	1.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Total Delay	50.4	18.3	83.4	7.3	76.2	18.3	50.0	35.7	0.4
Queue Length 50th (ft)	13	215	120	33	~101	18	36	18	0
Queue Length 95th (ft)	m31	#481	#256	176	#224	62	77	40	0
Internal Link Dist (ft)		346		168		395		179	
Turn Bay Length (ft)	100		125		100				
Base Capacity (vph)	105	1814	216	2196	194	443	153	393	461
Starvation Cap Reductn	0	127	0	655	0	0	0	0	0
Spillback Cap Reductn	0	270	0	13	0	7	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.83	0.96	0.59	0.84	0.30	0.42	0.08	0.05

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	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1250	315	793	511	261	326
v/c Ratio	0.88	1.64	0.40	0.92	0.45	0.53
Control Delay	17.9	331.0	7.5	54.1	27.6	14.5
Queue Delay	18.0	0.0	0.6	22.7	0.0	0.1
Total Delay	35.9	331.0	8.1	76.8	27.6	14.6
Queue Length 50th (ft)	276	~272	73	278	117	63
Queue Length 95th (ft)	#134	m#317	m82	#469	188	145
Internal Link Dist (ft)	168		218		367	
Turn Bay Length (ft)						
Base Capacity (vph)	1426	192	1960	556	585	620
Starvation Cap Reductn	137	0	729	0	0	0
Spillback Cap Reductn	205	0	292	62	0	23
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.02	1.64	0.64	1.03	0.45	0.55

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
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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.



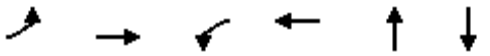
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	379	1253	913	272	403	696
v/c Ratio	1.11	0.70	0.96	0.43	0.32	1.09
Control Delay	100.8	12.8	44.3	3.2	21.2	87.8
Queue Delay	0.5	30.8	42.6	0.5	0.0	5.3
Total Delay	101.3	43.6	87.0	3.7	21.2	93.1
Queue Length 50th (ft)	~250	234	298	1	84	~415
Queue Length 95th (ft)	m#309	m275	#379	8	121	#631
Internal Link Dist (ft)		218	178		514	
Turn Bay Length (ft)						
Base Capacity (vph)	340	1799	953	639	1274	640
Starvation Cap Reductn	15	611	149	117	0	0
Spillback Cap Reductn	0	136	0	0	0	32
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.17	1.05	1.14	0.52	0.32	1.14

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.

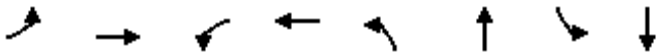
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	293	1696	11	956	174	457
v/c Ratio	0.83	0.70	0.09	0.41	0.89dl	0.80
Control Delay	24.1	6.3	11.4	11.7	30.4	35.6
Queue Delay	0.0	0.3	0.0	0.1	0.0	0.0
Total Delay	24.1	6.6	11.4	11.8	30.4	35.7
Queue Length 50th (ft)	59	148	3	230	47	98
Queue Length 95th (ft)	m#255	m192	m4	m255	76	140
Internal Link Dist (ft)		178		1432	576	898
Turn Bay Length (ft)	100		75			
Base Capacity (vph)	353	2429	120	2338	583	741
Starvation Cap Reductn	0	245	0	0	0	0
Spillback Cap Reductn	0	0	0	314	0	7
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.78	0.09	0.47	0.30	0.62

Intersection Summary

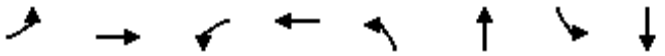
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	135	750	76	653	109	577	109	326
v/c Ratio	0.78	0.67	0.52	0.64	0.50	0.89	0.61	0.53
Control Delay	51.1	14.0	48.2	22.4	27.9	27.3	53.3	28.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.1	14.0	48.2	22.4	27.9	27.3	53.3	28.5
Queue Length 50th (ft)	82	66	43	83	44	140	60	151
Queue Length 95th (ft)	m#134	m115	m84	107	m59	m#411	#114	239
Internal Link Dist (ft)		338		729		891		406
Turn Bay Length (ft)	150		125		150		150	
Base Capacity (vph)	175	1126	155	1014	237	649	194	614
Starvation Cap Reductn	0	1	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	10	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.67	0.49	0.65	0.46	0.89	0.56	0.53

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	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	11	914	128	734	120	44	43	326
v/c Ratio	0.03	0.40	0.38	0.32	0.83	0.10	0.13	0.70
Control Delay	6.5	5.8	12.4	7.7	67.2	9.7	25.6	37.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.5	5.8	12.4	7.7	67.2	9.7	25.6	37.5
Queue Length 50th (ft)	1	29	28	80	56	7	19	166
Queue Length 95th (ft)	m2	m97	79	131	m#141	m23	43	241
Internal Link Dist (ft)		729		707		887		908
Turn Bay Length (ft)	75		100		100		75	
Base Capacity (vph)	420	2259	333	2311	168	532	403	548
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.40	0.38	0.32	0.71	0.08	0.11	0.59

Intersection Summary

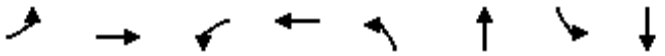
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	33	606	105	852	76	108	54	141	22
v/c Ratio	0.12	0.31	0.25	0.43	0.20	0.19	0.15	0.27	0.05
Control Delay	7.6	6.8	2.9	2.4	13.4	7.9	16.7	17.8	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.6	6.8	2.9	2.4	13.4	7.9	16.7	17.8	7.5
Queue Length 50th (ft)	5	48	3	12	16	11	14	38	0
Queue Length 95th (ft)	17	73	m7	19	m30	m26	37	77	14
Internal Link Dist (ft)		707		320		887		416	
Turn Bay Length (ft)	100		100		100		100		75
Base Capacity (vph)	277	1959	421	1969	372	555	372	522	460
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	0.12	0.31	0.25	0.43	0.20	0.19	0.15	0.27	0.05

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	41	557	11	1011	54	260	87	22
v/c Ratio	0.23	0.33	0.03	0.60	0.10	0.37	0.23	0.03
Control Delay	11.3	8.6	8.6	12.4	12.6	14.1	14.5	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.3	8.6	8.6	12.4	12.6	14.1	14.5	8.7
Queue Length 50th (ft)	6	48	2	121	12	60	21	2
Queue Length 95th (ft)	22	68	9	174	32	111	49	14
Internal Link Dist (ft)		320		512		890		897
Turn Bay Length (ft)	100		100		50		100	
Base Capacity (vph)	175	1698	371	1684	530	707	385	667
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.33	0.03	0.60	0.10	0.37	0.23	0.03

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	33	87	429	430	413	43	283	380	283	293	98
v/c Ratio	0.14	0.36	0.82	0.81	0.53	0.37	0.90	0.37	0.77	0.23	0.15
Control Delay	34.8	36.5	45.6	44.4	6.0	52.2	69.9	3.0	48.6	22.9	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.8	36.5	45.6	44.4	6.0	52.2	69.9	3.0	48.6	22.9	5.6
Queue Length 50th (ft)	17	42	231	230	0	23	155	0	143	62	0
Queue Length 95th (ft)	42	84	#528	#525	78	65	#386	54	#314	118	35
Internal Link Dist (ft)		390		1100			533			550	
Turn Bay Length (ft)	75		225			125			250		100
Base Capacity (vph)	549	571	521	529	776	126	315	1023	443	1290	644
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.15	0.82	0.81	0.53	0.34	0.90	0.37	0.64	0.23	0.15

Intersection Summary

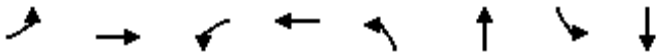
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	43	510	54	674	76	369	98	283	98
v/c Ratio	0.21	0.38	0.19	0.47	0.15	0.39	0.22	0.29	0.11
Control Delay	20.2	17.8	26.0	19.3	12.4	14.2	13.3	13.6	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	17.8	26.0	19.3	12.4	14.2	13.3	13.6	3.2
Queue Length 50th (ft)	19	109	22	103	21	116	29	87	2
Queue Length 95th (ft)	m42	145	m38	m138	46	181	m27	m81	m1
Internal Link Dist (ft)		260		699		877		887	
Turn Bay Length (ft)	85		100		75		100		100
Base Capacity (vph)	208	1354	281	1427	520	951	445	962	865
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	0.21	0.38	0.19	0.47	0.15	0.39	0.22	0.29	0.11

Intersection Summary

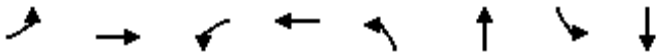
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	87	522	43	826	54	543	94	260
v/c Ratio	0.68	0.37	0.39	0.62	0.41	0.94	0.57	0.43
Control Delay	76.9	19.4	37.1	15.4	48.8	56.3	35.1	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.9	19.4	37.1	15.4	48.8	56.3	35.1	12.9
Queue Length 50th (ft)	52	93	18	81	30	294	37	43
Queue Length 95th (ft)	m#109	m122	m32	144	66	#497	m80	92
Internal Link Dist (ft)		339		739		884		891
Turn Bay Length (ft)	150		140		100		100	
Base Capacity (vph)	129	1428	118	1329	157	582	196	619
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.37	0.36	0.62	0.34	0.93	0.48	0.42

Intersection Summary

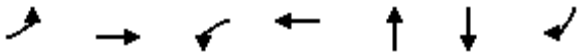
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	11	413	98	881	54	195	109	544
v/c Ratio	0.08	0.31	0.30	0.65	0.18	0.21	0.18	0.58
Control Delay	6.3	6.6	22.4	25.5	8.3	5.2	11.5	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.3	6.6	22.4	25.5	8.3	5.2	11.5	13.5
Queue Length 50th (ft)	1	17	38	211	0	48	23	110
Queue Length 95th (ft)	m3	m27	79	277	m29	63	m57	229
Internal Link Dist (ft)		739		700		1849		887
Turn Bay Length (ft)	75		75		100		50	
Base Capacity (vph)	132	1341	331	1351	306	926	600	933
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.31	0.30	0.65	0.18	0.21	0.18	0.58

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



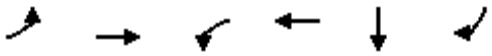
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	33	369	141	1261	240	196	65
v/c Ratio	0.27	0.22	0.29	0.74	0.36	0.34	0.11
Control Delay	16.5	8.5	11.5	15.6	14.5	12.6	4.8
Queue Delay	0.0	0.0	0.0	0.6	0.0	0.0	0.0
Total Delay	16.5	8.5	11.5	16.2	14.5	12.6	4.8
Queue Length 50th (ft)	7	34	29	176	56	49	1
Queue Length 95th (ft)	27	56	62	247	105	93	10
Internal Link Dist (ft)		700		324	1841	887	
Turn Bay Length (ft)	60		75				75
Base Capacity (vph)	121	1656	478	1700	674	574	580
Starvation Cap Reductn	0	0	0	151	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	0.27	0.22	0.29	0.81	0.36	0.34	0.11

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	54	348	11	1348	120	43	239	54	33	22
v/c Ratio	0.25	0.14	0.02	0.53	0.10	0.16	0.67	0.16	0.26	0.07
Control Delay	9.3	4.7	5.2	7.4	2.5	27.0	39.2	14.4	34.1	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.3	4.7	5.2	7.4	2.5	27.0	39.2	14.4	34.1	18.6
Queue Length 50th (ft)	9	26	2	151	6	23	141	14	16	5
Queue Length 95th (ft)	35	53	8	266	27	54	210	38	40	23
Internal Link Dist (ft)		324		505			1849			890
Turn Bay Length (ft)	75		75		75	50		50	100	
Base Capacity (vph)	218	2459	725	2540	1157	369	496	449	177	467
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	0.25	0.14	0.02	0.53	0.10	0.12	0.48	0.12	0.19	0.05

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	32	468	348	1511	250	54
v/c Ratio	0.22	0.20	0.58	0.65	0.63	0.15
Control Delay	14.7	6.6	15.7	11.3	32.3	13.4
Queue Delay	0.0	0.0	0.0	0.5	0.0	0.0
Total Delay	14.7	6.6	15.7	11.7	32.3	13.4
Queue Length 50th (ft)	4	30	25	49	112	12
Queue Length 95th (ft)	36	98	#301	#345	122	27
Internal Link Dist (ft)		324		303	295	
Turn Bay Length (ft)	100		175			50
Base Capacity (vph)	145	2303	595	2307	812	709
Starvation Cap Reductn	0	0	0	346	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.20	0.58	0.77	0.31	0.08

Intersection Summary

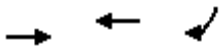
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	598	511	430	1048	891
v/c Ratio	0.48	0.41	0.50	0.58	0.83
Control Delay	20.6	19.8	13.6	13.4	16.0
Queue Delay	0.0	0.0	0.0	0.4	0.0
Total Delay	20.6	19.8	13.6	13.8	16.0
Queue Length 50th (ft)	112	93	129	167	65
Queue Length 95th (ft)	158	134	210	225	#454
Internal Link Dist (ft)	1100	380		1000	
Turn Bay Length (ft)			200		225
Base Capacity (vph)	1234	1236	860	1808	1071
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	282	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.48	0.41	0.50	0.69	0.83

Intersection Summary

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



Lane Group	EBT	WBT	SBR
Lane Group Flow (vph)	457	848	1011
v/c Ratio	0.15	0.56	0.78
Control Delay	1.7	19.0	9.3
Queue Delay	0.0	0.0	0.1
Total Delay	1.7	19.0	9.4
Queue Length 50th (ft)	0	152	200
Queue Length 95th (ft)	22	240	280
Internal Link Dist (ft)	303	471	
Turn Bay Length (ft)			
Base Capacity (vph)	3131	1524	1539
Starvation Cap Reductn	0	0	63
Spillback Cap Reductn	0	0	19
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.15	0.56	0.68

Intersection Summary

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	304	152	587	261	315
v/c Ratio	0.18	0.11	0.33	0.40	0.40
Control Delay	4.6	0.1	6.3	17.4	3.8
Queue Delay	0.0	0.0	0.2	0.0	0.0
Total Delay	4.6	0.1	6.5	17.4	3.8
Queue Length 50th (ft)	15	0	29	74	0
Queue Length 95th (ft)	35	0	m55	130	44
Internal Link Dist (ft)	471		185	347	
Turn Bay Length (ft)		100			100
Base Capacity (vph)	1689	1441	1823	677	799
Starvation Cap Reductn	0	0	546	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.18	0.11	0.46	0.39	0.39

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	183	645	97	250	881	435	359	43	217	957	402
v/c Ratio	0.57	0.62	0.18	0.83	0.88	0.85	0.30	0.07	0.60	0.91	0.66
Control Delay	51.5	34.1	5.7	69.3	46.2	59.0	26.2	0.2	50.6	49.1	21.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	34.1	5.7	69.3	46.2	59.0	26.2	0.2	50.6	49.1	21.4
Queue Length 50th (ft)	60	192	0	84	287	143	88	0	71	319	113
Queue Length 95th (ft)	95	252	34	#155	#414	#224	138	0	108	#458	229
Internal Link Dist (ft)		745			420		460			480	
Turn Bay Length (ft)	150		110	150		150		90	150		125
Base Capacity (vph)	404	1122	572	303	1004	539	1213	610	606	1049	611
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.57	0.17	0.83	0.88	0.81	0.30	0.07	0.36	0.91	0.66

Intersection Summary

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	33	326	380	87	98	261
v/c Ratio	0.05	0.39	0.67	0.16	0.45	0.30
Control Delay	15.6	4.3	25.1	4.3	33.0	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	4.3	25.1	4.3	33.0	10.4
Queue Length 50th (ft)	9	9	129	0	36	55
Queue Length 95th (ft)	m26	m52	182	23	77	74
Internal Link Dist (ft)			891			877
Turn Bay Length (ft)	150			100	150	
Base Capacity (vph)	730	844	745	685	245	1117
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	0.05	0.39	0.51	0.13	0.40	0.23

Intersection Summary

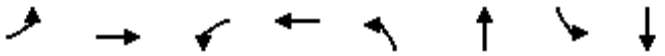
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	33	250	11	228	98	609	11	130	22
v/c Ratio	0.09	0.36	0.03	0.35	0.15	0.64	0.04	0.13	0.03
Control Delay	12.7	8.6	14.3	15.7	8.9	14.5	8.2	8.5	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	8.6	14.3	15.7	8.9	14.5	8.2	8.5	3.7
Queue Length 50th (ft)	9	28	3	57	19	153	2	25	0
Queue Length 95th (ft)	m17	m52	12	108	41	253	9	49	9
Internal Link Dist (ft)		318		327		884		884	
Turn Bay Length (ft)	50		100		100		25		50
Base Capacity (vph)	368	698	349	646	652	954	274	968	833
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	0.09	0.36	0.03	0.35	0.15	0.64	0.04	0.13	0.03

Intersection Summary

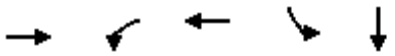
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	163	1370	43	989	11	98	130	381
v/c Ratio	0.75	0.75	0.35	0.56	0.05	0.18	0.31	0.63
Control Delay	38.3	14.5	18.4	10.6	15.1	11.6	18.1	19.0
Queue Delay	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0
Total Delay	38.3	14.5	18.4	12.7	15.1	11.6	18.1	19.0
Queue Length 50th (ft)	42	186	8	107	3	16	35	88
Queue Length 95th (ft)	#144	260	35	156	13	45	74	170
Internal Link Dist (ft)		522		182		395		398
Turn Bay Length (ft)	75		90		100		150	
Base Capacity (vph)	216	1836	123	1778	206	557	413	603
Starvation Cap Reductn	0	0	0	614	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.75	0.35	0.85	0.05	0.18	0.31	0.63

Intersection Summary

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



Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	1544	185	652	326	380
v/c Ratio	0.69	1.39	0.30	0.87	0.67
Control Delay	9.0	236.1	5.5	50.8	13.0
Queue Delay	20.6	0.0	0.7	0.0	0.0
Total Delay	29.6	236.1	6.2	50.8	13.0
Queue Length 50th (ft)	164	~100	50	126	29
Queue Length 95th (ft)	230	#163	73	#258	110
Internal Link Dist (ft)	182		196		582
Turn Bay Length (ft)		100			
Base Capacity (vph)	2245	133	2210	375	566
Starvation Cap Reductn	745	0	1128	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.03	1.39	0.60	0.87	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.

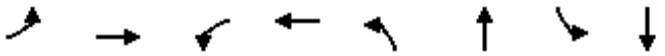


Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	576	1033	913	54	174
v/c Ratio	1.29	0.37	0.34	0.28	0.54
Control Delay	161.0	3.2	2.9	37.3	12.5
Queue Delay	0.0	1.3	0.0	0.0	0.0
Total Delay	161.0	4.4	2.9	37.3	12.5
Queue Length 50th (ft)	~138	52	41	26	1
Queue Length 95th (ft)	#408	123	101	59	55
Internal Link Dist (ft)		196	190	795	
Turn Bay Length (ft)	75				575
Base Capacity (vph)	448	2819	2704	345	444
Starvation Cap Reductn	0	1488	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.29	0.78	0.34	0.16	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	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	11	924	42	589	391	131	22	109
v/c Ratio	0.07	0.70	0.27	0.45	0.80	0.19	0.05	0.15
Control Delay	38.8	26.5	46.9	21.7	39.2	18.5	17.9	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	26.5	46.9	21.7	39.2	18.5	17.9	17.8
Queue Length 50th (ft)	6	222	26	118	194	46	8	37
Queue Length 95th (ft)	22	293	m36	m135	#349	86	23	73
Internal Link Dist (ft)		320		718		423		402
Turn Bay Length (ft)	100		150		100		100	
Base Capacity (vph)	157	1314	157	1314	489	706	479	705
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.70	0.27	0.45	0.80	0.19	0.05	0.15

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.



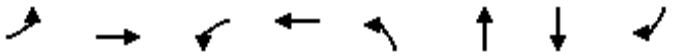
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	65	630	54	609	533	761	174	87	250
v/c Ratio	0.44	0.56	0.46	0.57	1.02	0.82	0.21	0.70	0.27
Control Delay	31.9	4.6	31.7	16.6	71.9	29.4	9.4	53.5	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.9	4.6	31.7	16.6	71.9	29.4	9.4	53.5	13.9
Queue Length 50th (ft)	39	6	33	53	~340	368	34	38	77
Queue Length 95th (ft)	m58	8	67	113	#534	#598	72	#127	128
Internal Link Dist (ft)		718		725		385			884
Turn Bay Length (ft)	140		150		90		50	100	
Base Capacity (vph)	157	1123	118	1061	520	926	819	124	911
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	0.41	0.56	0.46	0.57	1.02	0.82	0.21	0.70	0.27

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.

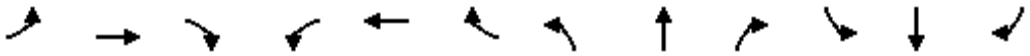
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	11	576	22	717	65	358	402	22
v/c Ratio	0.03	0.27	0.05	0.34	0.47	0.65	0.98	0.05
Control Delay	3.8	3.9	11.2	15.8	38.4	33.1	73.1	17.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.8	3.9	11.2	15.8	38.4	33.1	73.1	17.7
Queue Length 50th (ft)	1	39	9	196	29	169	214	3
Queue Length 95th (ft)	m3	50	m19	256	73	263	#393	m14
Internal Link Dist (ft)		725		706		508	1849	
Turn Bay Length (ft)	75		225		100			75
Base Capacity (vph)	392	2140	470	2127	144	574	432	499
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.27	0.05	0.34	0.45	0.62	0.93	0.04

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	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	109	478	11	11	685	109	88	401	11	33	22	22
v/c Ratio	0.55	0.24	0.01	0.09	0.45	0.15	0.21	0.71	0.02	0.27	0.05	0.04
Control Delay	53.0	7.5	0.5	35.5	18.1	3.6	19.8	31.4	0.1	26.7	18.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.0	7.5	0.5	35.5	18.3	3.6	19.8	31.4	0.1	26.7	18.7	0.1
Queue Length 50th (ft)	65	54	0	5	112	0	38	212	0	14	9	0
Queue Length 95th (ft)	m93	m90	m0	m14	145	20	62	243	m0	33	21	0
Internal Link Dist (ft)		706			318			380			1841	
Turn Bay Length (ft)	200		75	100		150	175			75		50
Base Capacity (vph)	208	2002	923	118	1521	742	683	915	877	245	968	877
Starvation Cap Reductn	0	0	0	0	184	0	0	13	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	0.52	0.24	0.01	0.09	0.51	0.15	0.13	0.44	0.01	0.13	0.02	0.03

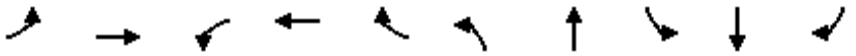
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



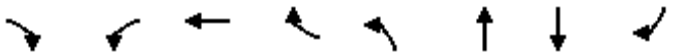
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBT
Lane Group Flow (vph)	54	467	891	43	152	141	22
v/c Ratio	0.15	0.20	0.38	0.13	0.35	0.30	0.06
Control Delay	6.7	6.4	6.7	28.7	31.6	6.9	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	6.4	6.7	28.7	31.6	6.9	17.0
Queue Length 50th (ft)	13	58	97	19	72	0	4
Queue Length 95th (ft)	38	102	128	47	128	46	25
Internal Link Dist (ft)		318	536		268		1849
Turn Bay Length (ft)	100						
Base Capacity (vph)	360	2382	2338	473	637	634	536
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	0.15	0.20	0.38	0.09	0.24	0.22	0.04

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	120	381	22	696	228	11	174	152	272	370
v/c Ratio	0.56	0.17	0.18	0.38	0.50	0.08	0.24	0.61	0.70	0.60
Control Delay	47.8	8.6	42.5	14.5	12.9	26.8	27.4	42.0	42.4	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.8	8.6	42.5	14.5	12.9	26.8	27.4	42.0	42.4	8.1
Queue Length 50th (ft)	65	33	12	116	30	5	41	79	144	6
Queue Length 95th (ft)	121	91	35	188	85	18	62	128	204	70
Internal Link Dist (ft)		420		420			420		420	
Turn Bay Length (ft)	275		125		75	75		175		
Base Capacity (vph)	216	2264	124	1852	722	246	1384	470	732	839
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	0.17	0.18	0.38	0.32	0.04	0.13	0.32	0.37	0.44

Intersection Summary



Lane Group	EBR	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	11	239	130	663	11	228	33	22
v/c Ratio	0.01	0.47	0.24	0.52	0.09	0.20	0.03	0.02
Control Delay	0.0	28.3	24.1	3.4	41.2	9.5	9.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	28.3	24.1	3.4	41.2	9.5	9.2	0.1
Queue Length 50th (ft)	0	105	53	0	6	59	6	0
Queue Length 95th (ft)	0	168	95	39	23	99	18	0
Internal Link Dist (ft)			974			434	380	
Turn Bay Length (ft)		250		250	125			125
Base Capacity (vph)	1334	597	629	1380	448	1132	1046	919
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.40	0.21	0.48	0.02	0.20	0.03	0.02

Intersection Summary

Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	598	478	120	109
v/c Ratio	0.47	0.65	0.48	0.16
Control Delay	9.4	11.1	15.9	7.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.4	11.1	15.9	7.8
Queue Length 50th (ft)	37	40	14	11
Queue Length 95th (ft)	76	120	54	35
Internal Link Dist (ft)	730	349		343
Turn Bay Length (ft)			100	
Base Capacity (vph)	1843	994	359	994
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.32	0.48	0.33	0.11

Intersection Summary



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	566	750	22	837	391
v/c Ratio	0.86	0.64	0.04	0.90	0.59
Control Delay	33.3	3.8	8.1	28.7	19.4
Queue Delay	0.0	0.0	0.0	25.9	0.0
Total Delay	33.3	3.8	8.1	54.6	19.4
Queue Length 50th (ft)	183	0	4	254	109
Queue Length 95th (ft)	#347	47	13	#482	186
Internal Link Dist (ft)	552			267	182
Turn Bay Length (ft)		400	100		
Base Capacity (vph)	699	1183	514	970	710
Starvation Cap Reductn	0	0	0	166	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.81	0.63	0.04	1.04	0.55

Intersection Summary

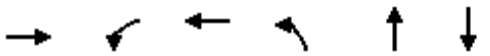
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	990	402	174	402
v/c Ratio	0.70	0.60	0.62	0.61
Control Delay	12.0	13.2	21.3	13.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.0	13.2	21.3	13.9
Queue Length 50th (ft)	77	60	28	64
Queue Length 95th (ft)	138	118	#92	123
Internal Link Dist (ft)	759	306		267
Turn Bay Length (ft)			100	
Base Capacity (vph)	1605	866	369	870
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.62	0.46	0.47	0.46

Intersection Summary

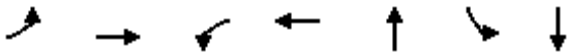
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	272	170	300	120	141	500
v/c Ratio	0.28	0.31	0.31	0.86	0.22	0.78
Control Delay	12.1	7.6	6.6	75.0	14.4	36.0
Queue Delay	0.9	0.0	0.8	0.0	0.0	0.0
Total Delay	13.0	7.6	7.4	75.0	14.4	36.0
Queue Length 50th (ft)	79	20	35	70	42	271
Queue Length 95th (ft)	m118	m61	m103	#151	71	329
Internal Link Dist (ft)	314		323		385	393
Turn Bay Length (ft)		150		150		
Base Capacity (vph)	986	552	980	189	858	859
Starvation Cap Reductn	466	0	403	0	0	0
Spillback Cap Reductn	0	0	175	0	0	1
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.31	0.52	0.63	0.16	0.58

Intersection Summary

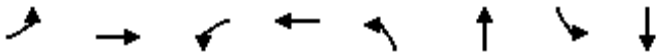
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	65	250	54	315	326	150	573
v/c Ratio	0.65	0.26	0.11	0.38	0.98	0.46	0.84
Control Delay	68.4	8.8	12.3	14.2	72.9	24.1	34.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	68.4	8.8	12.3	14.2	72.9	24.1	34.6
Queue Length 50th (ft)	36	53	14	81	151	54	238
Queue Length 95th (ft)	m#75	m70	m27	133	#319	109	#413
Internal Link Dist (ft)		315		326	889		385
Turn Bay Length (ft)	75		75			150	
Base Capacity (vph)	100	954	498	819	343	336	708
Starvation Cap Reductn	0	0	0	0	0	0	9
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.26	0.11	0.38	0.95	0.45	0.82

Intersection Summary

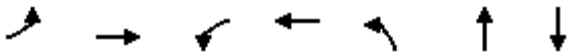
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	11	826	11	315	65	142	163	598
v/c Ratio	0.02	0.90	0.10	0.34	0.57	0.23	0.40	0.97
Control Delay	7.5	19.0	11.1	10.8	42.1	15.2	20.3	54.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	19.0	11.1	10.8	42.1	15.2	20.3	54.6
Queue Length 50th (ft)	3	356	2	68	21	35	49	225
Queue Length 95th (ft)	m4	m354	11	116	#77	73	97	#424
Internal Link Dist (ft)		1209		158		224		156
Turn Bay Length (ft)	150		150		75		75	
Base Capacity (vph)	507	916	114	928	114	614	412	614
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.90	0.10	0.34	0.57	0.23	0.40	0.97

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	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	65	131	10	136	10	400	217
v/c Ratio	0.10	0.13	0.01	0.14	0.03	0.65	0.91
Control Delay	6.6	6.2	6.2	3.4	14.9	24.3	61.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.6	6.2	6.2	3.4	14.9	24.3	61.5
Queue Length 50th (ft)	20	38	2	1	3	130	68
Queue Length 95th (ft)	37	65	m6	28	12	216	#191
Internal Link Dist (ft)		721		318		186	883
Turn Bay Length (ft)	100		75		100		
Base Capacity (vph)	683	1003	687	968	371	628	244
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	0.10	0.13	0.01	0.14	0.03	0.64	0.89

Intersection Summary

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

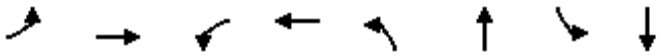
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	22	533	11	250	109	229
v/c Ratio	0.03	0.43	0.02	0.20	0.27	0.72
Control Delay	5.9	8.0	4.7	5.3	27.9	44.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.9	8.0	4.7	5.3	27.9	44.5
Queue Length 50th (ft)	3	107	1	23	49	119
Queue Length 95th (ft)	13	213	m5	125	86	m183
Internal Link Dist (ft)		284		1059	378	233
Turn Bay Length (ft)	150		150			
Base Capacity (vph)	762	1242	515	1249	512	406
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	0.03	0.43	0.02	0.20	0.21	0.56

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	337	1402	217	696	120	261	11	565
v/c Ratio	0.79	1.13	1.00	0.84	1.02	0.39	0.14	1.07
Control Delay	38.0	89.2	82.7	35.1	126.0	18.0	45.5	86.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.0	89.2	82.7	35.1	126.0	18.0	45.5	86.8
Queue Length 50th (ft)	202	~493	~131	214	~69	78	6	~322
Queue Length 95th (ft)	#318	#608	m#208	m#275	#185	152	23	#525
Internal Link Dist (ft)		1432		669		887		351
Turn Bay Length (ft)	150		150		100		150	
Base Capacity (vph)	428	1245	216	863	118	675	78	530
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	1.13	1.00	0.81	1.02	0.39	0.14	1.07

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	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	43	826	65	967	576	608
v/c Ratio	0.52	0.66	0.53	0.77	0.86	0.78
Control Delay	14.2	6.8	30.8	19.4	29.5	24.1
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0
Total Delay	14.2	6.8	30.8	19.8	29.5	24.1
Queue Length 50th (ft)	7	93	18	157	260	248
Queue Length 95th (ft)	m7	m81	m42	211	m313	409
Internal Link Dist (ft)		669		338	884	889
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	82	1247	123	1252	669	780
Starvation Cap Reductn	0	0	0	54	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.66	0.53	0.81	0.86	0.78

Intersection Summary

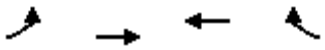
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	109	630	22	816	543	554
v/c Ratio	0.50	0.38	0.07	0.50	0.99	0.96
Control Delay	20.3	11.6	12.7	12.9	62.1	45.3
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay	20.3	11.6	12.7	13.0	62.1	45.3
Queue Length 50th (ft)	28	77	5	93	293	192
Queue Length 95th (ft)	56	101	m8	111	#518	m#383
Internal Link Dist (ft)		699		339	883	884
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	219	1638	301	1632	550	576
Starvation Cap Reductn	0	0	0	125	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.38	0.07	0.54	0.99	0.96

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.



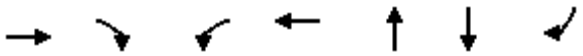
Lane Group	EBL	EBT	WBT	WBR
Lane Group Flow (vph)	457	609	511	587
v/c Ratio	0.51	0.17	0.40	0.37
Control Delay	13.2	0.1	13.1	0.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	13.2	0.1	13.1	0.5
Queue Length 50th (ft)	112	0	53	0
Queue Length 95th (ft)	185	0	m84	m0
Internal Link Dist (ft)		380	250	
Turn Bay Length (ft)	200			125
Base Capacity (vph)	827	3539	1337	1583
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.55	0.17	0.38	0.37

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBT	WBR	SEL
Lane Group Flow (vph)	467	1136	549	609
v/c Ratio	0.36	0.81	0.38	0.48
Control Delay	15.7	16.7	0.8	17.2
Queue Delay	0.4	0.0	0.0	0.0
Total Delay	16.1	16.7	0.8	17.2
Queue Length 50th (ft)	66	131	0	92
Queue Length 95th (ft)	118	219	0	134
Internal Link Dist (ft)	185	745		250
Turn Bay Length (ft)			150	
Base Capacity (vph)	1337	1444	1441	1313
Starvation Cap Reductn	413	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.51	0.79	0.38	0.46

Intersection Summary



Lane Group	EBT	EBR	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	435	924	442	1305	44	337	65
v/c Ratio	0.42	0.74	0.93	0.66	0.11	0.92	0.15
Control Delay	9.0	4.7	44.1	11.2	13.5	59.3	11.8
Queue Delay	0.0	0.0	0.0	1.9	0.0	0.0	0.0
Total Delay	9.0	4.7	44.1	13.1	13.5	59.3	11.8
Queue Length 50th (ft)	93	0	163	182	7	151	9
Queue Length 95th (ft)	149	41	#370	245	31	#304	37
Internal Link Dist (ft)	740			270	212	971	
Turn Bay Length (ft)							50
Base Capacity (vph)	1107	1272	501	2104	410	382	457
Starvation Cap Reductn	0	0	0	600	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	0.39	0.73	0.88	0.87	0.11	0.88	0.14

Intersection Summary

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

Lane Group	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	772	2074	533	152
v/c Ratio	1.02dl	1.04	1.08	0.28
Control Delay	16.0	46.6	93.2	5.4
Queue Delay	0.7	0.0	0.0	0.0
Total Delay	16.7	46.6	93.2	5.4
Queue Length 50th (ft)	128	~557	~302	0
Queue Length 95th (ft)	201	#697	#488	40
Internal Link Dist (ft)	270	750	806	
Turn Bay Length (ft)				325
Base Capacity (vph)	1078	1995	494	546
Starvation Cap Reductn	94	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.78	1.04	1.08	0.28

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.

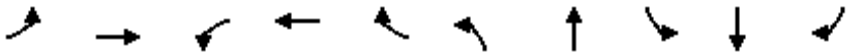
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	EBT	WBL	WBT	NBL
Lane Group Flow (vph)	967	239	1359	641
v/c Ratio	0.50	0.99	0.69	1.02
Control Delay	9.8	75.8	12.9	60.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.8	75.8	12.9	60.7
Queue Length 50th (ft)	108	84	185	~215
Queue Length 95th (ft)	152	#224	253	#423
Internal Link Dist (ft)	531		1779	431
Turn Bay Length (ft)				
Base Capacity (vph)	1946	242	1960	631
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.50	0.99	0.69	1.02

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	SBL	SBT	SBR
Lane Group Flow (vph)	793	392	22	554	446	446	445	196	174	446
v/c Ratio	0.99	0.21	0.23	0.98	0.75	0.69	0.44	0.94	0.17	0.57
Control Delay	65.5	7.6	46.9	64.9	28.3	34.7	22.1	82.8	24.1	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.5	7.6	46.9	64.9	28.3	34.7	22.1	82.8	24.1	5.8
Queue Length 50th (ft)	232	32	12	306	162	115	85	109	38	0
Queue Length 95th (ft)	#357	68	37	#516	281	170	130	#244	64	69
Internal Link Dist (ft)		1779		560			504		596	
Turn Bay Length (ft)			300		40	100		70		85
Base Capacity (vph)	800	1850	95	580	605	645	1010	209	1043	781
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	0.21	0.23	0.96	0.74	0.69	0.44	0.94	0.17	0.57

Intersection Summary

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

Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Group Flow (vph)	435	239	109	826	696
v/c Ratio	0.47	0.27	0.27	0.86	0.55
Control Delay	13.9	5.7	10.2	18.4	26.0
Queue Delay	0.1	0.0	0.0	2.4	0.0
Total Delay	14.0	5.7	10.2	20.8	26.0
Queue Length 50th (ft)	135	34	23	182	167
Queue Length 95th (ft)	178	61	m26	m170	245
Internal Link Dist (ft)	277			340	540
Turn Bay Length (ft)		100	100		
Base Capacity (vph)	1023	973	452	1062	1289
Starvation Cap Reductn	0	0	0	128	0
Spillback Cap Reductn	76	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.46	0.25	0.24	0.88	0.54

Intersection Summary

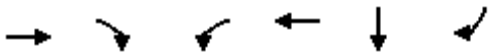
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	33	511	598	120	337	837	76
v/c Ratio	0.40	0.85	1.00	0.23	0.34	0.81	0.09
Control Delay	31.7	34.5	68.0	16.3	9.6	23.9	4.6
Queue Delay	0.0	1.1	0.0	0.0	1.5	0.1	0.8
Total Delay	31.7	35.6	68.0	16.3	11.1	23.9	5.4
Queue Length 50th (ft)	8	281	336	33	90	474	8
Queue Length 95th (ft)	m35	#449	#558	74	103	616	m20
Internal Link Dist (ft)		340	361			110	
Turn Bay Length (ft)	100			50			50
Base Capacity (vph)	82	599	599	533	1003	1033	872
Starvation Cap Reductn	0	16	0	0	477	4	613
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.88	1.00	0.23	0.64	0.81	0.29

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	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	424	478	22	196	761	457
v/c Ratio	0.75	0.30	0.19	0.30	0.39	0.42
Control Delay	36.0	0.5	26.1	29.8	14.4	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	0.5	26.1	29.8	14.4	3.1
Queue Length 50th (ft)	215	0	12	122	108	0
Queue Length 95th (ft)	280	0	m15	m164	226	57
Internal Link Dist (ft)	322			290	610	
Turn Bay Length (ft)		110	200			150
Base Capacity (vph)	753	1583	118	954	1946	1076
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	0.56	0.30	0.19	0.21	0.39	0.42

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	NBT
Lane Group Flow (vph)	435	1510
v/c Ratio	0.77	0.74
Control Delay	23.5	15.6
Queue Delay	0.0	0.0
Total Delay	23.5	15.6
Queue Length 50th (ft)	26	248
Queue Length 95th (ft)	162	408
Internal Link Dist (ft)	290	625
Turn Bay Length (ft)		
Base Capacity (vph)	684	2030
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.64	0.74

Intersection Summary



Lane Group	WBL	SBT
Lane Group Flow (vph)	217	1250
v/c Ratio	0.62	0.51
Control Delay	23.6	5.8
Queue Delay	0.0	0.4
Total Delay	23.6	6.3
Queue Length 50th (ft)	43	89
Queue Length 95th (ft)	55	121
Internal Link Dist (ft)	265	624
Turn Bay Length (ft)		
Base Capacity (vph)	487	2447
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	648
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.45	0.69

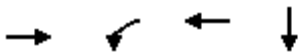
Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	22	283	207	533	968	598
v/c Ratio	0.06	0.42	0.31	0.86	0.51	0.57
Control Delay	23.9	32.0	21.0	36.4	4.6	1.3
Queue Delay	0.0	1.5	0.0	0.0	0.5	0.8
Total Delay	23.9	33.5	21.0	36.4	5.2	2.1
Queue Length 50th (ft)	10	148	79	227	28	0
Queue Length 95th (ft)	m22	252	127	#355	m61	m0
Internal Link Dist (ft)		265	346		185	
Turn Bay Length (ft)	175			150		
Base Capacity (vph)	430	761	761	695	1902	1058
Starvation Cap Reductn	0	305	0	0	495	201
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.62	0.27	0.77	0.69	0.70

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	WBL	WBT	SBT
Lane Group Flow (vph)	652	185	511	1163
v/c Ratio	1.09	0.88	0.55	0.84
Control Delay	93.8	70.3	2.8	25.9
Queue Delay	0.0	0.0	1.7	6.6
Total Delay	93.8	70.3	4.5	32.5
Queue Length 50th (ft)	~424	104	33	323
Queue Length 95th (ft)	#636	m105	m30	262
Internal Link Dist (ft)	400		250	176
Turn Bay Length (ft)		100		
Base Capacity (vph)	599	216	929	1388
Starvation Cap Reductn	0	0	253	187
Spillback Cap Reductn	0	0	0	25
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.09	0.86	0.76	0.97

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.



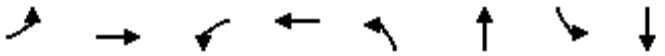
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	196	620	620	120	1326	54
v/c Ratio	1.12	0.74	1.01	0.21	0.88	0.08
Control Delay	97.5	18.6	69.7	10.6	31.9	3.6
Queue Delay	0.0	4.9	0.0	0.0	0.0	0.0
Total Delay	97.5	23.5	69.7	10.6	31.9	3.6
Queue Length 50th (ft)	~124	194	~353	18	353	0
Queue Length 95th (ft)	m#122	m192	#577	56	#465	17
Internal Link Dist (ft)		250	510		555	
Turn Bay Length (ft)	75			125		150
Base Capacity (vph)	175	836	616	573	1509	714
Starvation Cap Reductn	0	153	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	1.12	0.91	1.01	0.21	0.88	0.08

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.

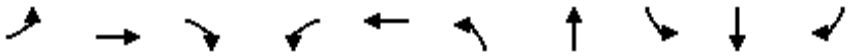


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	152	674	174	695	65	728	120	500
v/c Ratio	1.15	0.81	1.18	0.84	0.29	0.97	1.05	0.67
Control Delay	150.5	24.8	154.1	26.6	17.5	48.0	127.5	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	150.5	24.8	154.1	26.6	17.5	48.0	127.5	19.9
Queue Length 50th (ft)	~73	215	~85	223	17	268	~53	144
Queue Length 95th (ft)	#175	#401	#193	#421	46	#491	#145	243
Internal Link Dist (ft)		430		410		410		430
Turn Bay Length (ft)	200		190		100		100	
Base Capacity (vph)	132	836	148	831	222	750	114	746
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.15	0.81	1.18	0.84	0.29	0.97	1.05	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	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	261	500	207	152	641	130	1380	152	696	283
v/c Ratio	1.61	0.60	0.27	0.57	0.80	0.54	0.95	1.43	0.47	0.35
Control Delay	324.1	18.6	6.5	24.6	25.6	25.5	34.7	265.6	16.2	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	324.1	18.6	6.5	24.6	25.6	25.5	34.7	265.6	16.2	3.5
Queue Length 50th (ft)	~165	156	21	46	220	41	286	~91	110	3
Queue Length 95th (ft)	#237	249	58	109	#403	98	#436	#156	155	43
Internal Link Dist (ft)		420			420		420		420	
Turn Bay Length (ft)	200		100	200		200		200		75
Base Capacity (vph)	162	827	769	268	804	242	1459	106	1471	817
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	1.61	0.60	0.27	0.57	0.80	0.54	0.95	1.43	0.47	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	EBT	EBR	WBT	SBT
Lane Group Flow (vph)	424	239	228	902
v/c Ratio	0.73	0.15	0.40	0.43
Control Delay	34.4	0.2	38.6	4.5
Queue Delay	0.0	0.0	0.0	0.2
Total Delay	34.4	0.2	38.6	4.6
Queue Length 50th (ft)	213	0	143	31
Queue Length 95th (ft)	272	0	217	64
Internal Link Dist (ft)	365		338	190
Turn Bay Length (ft)		250		
Base Capacity (vph)	875	1583	855	2093
Starvation Cap Reductn	0	0	0	400
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	0.15	0.27	0.53

Intersection Summary



Lane Group	EBL	NBT
Lane Group Flow (vph)	435	1043
v/c Ratio	0.79	0.51
Control Delay	24.1	12.2
Queue Delay	1.7	0.3
Total Delay	25.8	12.5
Queue Length 50th (ft)	60	150
Queue Length 95th (ft)	59	194
Internal Link Dist (ft)	338	310
Turn Bay Length (ft)		
Base Capacity (vph)	735	2056
Starvation Cap Reductn	0	385
Spillback Cap Reductn	158	138
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.75	0.62

Intersection Summary



Lane Group	EBT	EBR	SBL	SBT
Lane Group Flow (vph)	511	511	402	359
v/c Ratio	0.47	0.77	0.35	0.17
Control Delay	25.9	21.5	1.7	5.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	25.9	21.5	1.7	5.0
Queue Length 50th (ft)	122	132	2	23
Queue Length 95th (ft)	144	221	18	37
Internal Link Dist (ft)	431			470
Turn Bay Length (ft)		25	150	
Base Capacity (vph)	1427	790	1140	2113
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.36	0.65	0.35	0.17

Intersection Summary



Lane Group	EBL	EBT	NBT	NBR
Lane Group Flow (vph)	511	402	533	685
v/c Ratio	0.73	0.65	0.27	0.64
Control Delay	29.8	34.5	11.9	9.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	29.8	34.6	11.9	9.6
Queue Length 50th (ft)	197	207	74	85
Queue Length 95th (ft)	119	138	140	273
Internal Link Dist (ft)		395	720	
Turn Bay Length (ft)				125
Base Capacity (vph)	1001	966	1997	1068
Starvation Cap Reductn	14	29	0	0
Spillback Cap Reductn	3	0	62	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.52	0.43	0.28	0.64

Intersection Summary



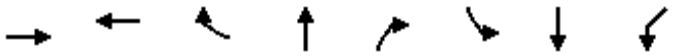
Lane Group	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	706	1097	731	294
v/c Ratio	1.14dl	1.19	0.65	0.27
Control Delay	17.9	114.7	3.9	15.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	17.9	114.7	3.9	15.2
Queue Length 50th (ft)	96	~495	0	38
Queue Length 95th (ft)	163	#705	45	63
Internal Link Dist (ft)	276	438		520
Turn Bay Length (ft)				
Base Capacity (vph)	941	923	1128	1087
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.75	1.19	0.65	0.27

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.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.



Lane Group	EBT	WBT	WBR	NBT	NBR2	SBL	SBT	SWL
Lane Group Flow (vph)	22	11	1131	837	22	554	402	11
v/c Ratio	0.05	0.02	1.02	1.08	0.05	0.80	0.55	0.07
Control Delay	22.1	24.4	30.6	99.5	0.2	42.8	32.4	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.1	24.4	30.6	99.5	0.2	42.8	32.4	1.0
Queue Length 50th (ft)	6	5	~491	~380	0	365	232	0
Queue Length 95th (ft)	28	m4	m332	#508	0	#628	373	0
Internal Link Dist (ft)	310	1100		571			552	406
Turn Bay Length (ft)					75			
Base Capacity (vph)	456	481	1108	777	422	695	729	148
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.02	1.02	1.08	0.05	0.80	0.55	0.07

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.



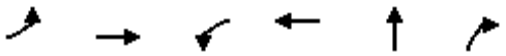
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	500	11	620	500	43	293	565	11
v/c Ratio	0.90	0.17	1.10	1.23	0.04	0.27	0.49	0.01
Control Delay	31.8	16.0	69.3	145.9	5.2	11.1	14.2	3.5
Queue Delay	8.9	0.0	2.5	0.0	0.0	0.3	0.0	0.0
Total Delay	40.8	16.0	71.9	145.9	5.2	11.4	14.2	3.5
Queue Length 50th (ft)	57	3	~529	~477	6	96	223	0
Queue Length 95th (ft)	m#529	m3	m#502	#688	20	143	308	6
Internal Link Dist (ft)	1100		365				400	
Turn Bay Length (ft)		75			60	60		
Base Capacity (vph)	558	66	566	408	991	1098	1156	988
Starvation Cap Reductn	0	0	51	0	0	0	0	0
Spillback Cap Reductn	44	0	0	0	334	372	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.17	1.20	1.23	0.07	0.40	0.49	0.01

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	WBL	WBT	NBT	NBR
Lane Group Flow (vph)	11	707	22	717	1053	21
v/c Ratio	0.18	1.01	0.35	1.02	1.05	0.02
Control Delay	38.6	68.8	43.3	73.0	71.9	7.4
Queue Delay	0.0	31.8	0.0	30.0	0.0	0.0
Total Delay	38.6	100.6	43.3	103.0	71.9	7.4
Queue Length 50th (ft)	5	~385	12	~591	~892	2
Queue Length 95th (ft)	m13	m#730	m27	#811	#1147	15
Internal Link Dist (ft)		365		1209	411	
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	62	700	62	701	999	861
Starvation Cap Reductn	0	61	0	0	0	0
Spillback Cap Reductn	0	0	0	196	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	1.11	0.35	1.42	1.05	0.02

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	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	663	446	109	446	87
v/c Ratio	0.78	0.52	0.16	0.33	0.13
Control Delay	21.9	14.3	12.9	13.8	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.9	14.3	12.9	13.8	4.0
Queue Length 50th (ft)	187	108	25	57	0
Queue Length 95th (ft)	#362	181	53	88	22
Internal Link Dist (ft)	330	230		550	
Turn Bay Length (ft)			100		100
Base Capacity (vph)	849	853	681	1362	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	0.78	0.52	0.16	0.33	0.13

Intersection Summary

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



Lane Group	WBT	SBL	SBR	SET
Lane Group Flow (vph)	130	109	402	22
v/c Ratio	0.07	0.24	0.82	0.13
Control Delay	17.1	25.8	36.6	24.0
Queue Delay	0.0	0.0	6.7	0.0
Total Delay	17.1	25.8	43.3	24.0
Queue Length 50th (ft)	18	44	142	6
Queue Length 95th (ft)	55	92	#320	24
Internal Link Dist (ft)	349	215		227
Turn Bay Length (ft)				
Base Capacity (vph)	1754	475	505	335
Starvation Cap Reductn	0	0	67	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.07	0.23	0.92	0.07

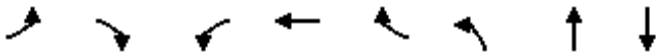
Intersection Summary

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

Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	863	326	294
v/c Ratio	1.00dr	0.61	0.54
Control Delay	6.7	19.7	15.5
Queue Delay	0.0	0.0	0.0
Total Delay	6.7	19.7	15.5
Queue Length 50th (ft)	32	82	60
Queue Length 95th (ft)	74	121	97
Internal Link Dist (ft)	373	384	409
Turn Bay Length (ft)			
Base Capacity (vph)	1778	654	657
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.49	0.50	0.45

Intersection Summary

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



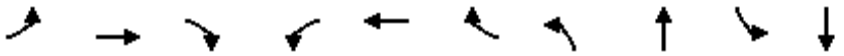
Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	315	11	49	540	117	151	452	359
v/c Ratio	0.75	0.02	0.44	5.87	0.26	0.51	0.61	0.48
Control Delay	44.7	1.9	52.1	2216.4	10.3	31.3	28.9	25.8
Queue Delay	0.4	0.0	0.0	0.0	0.0	3.7	1.1	1.3
Total Delay	45.1	1.9	52.1	2216.4	10.3	35.0	30.0	27.1
Queue Length 50th (ft)	144	0	32	~719	1	74	233	173
Queue Length 95th (ft)	213	m1	m61	#919	38	143	342	259
Internal Link Dist (ft)				724			395	398
Turn Bay Length (ft)	150					100		
Base Capacity (vph)	460	711	117	92	445	297	744	742
Starvation Cap Reductn	16	0	0	0	0	0	119	0
Spillback Cap Reductn	0	0	0	0	0	81	0	202
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.02	0.42	5.87	0.26	0.70	0.72	0.66

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	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	54	43	33	240	510	115	87	750	174	272
v/c Ratio	0.75	0.12	0.07	0.99	0.88	0.19	0.19	1.07	0.97	0.62
Control Delay	101.1	33.9	0.3	91.4	43.5	1.8	30.8	85.6	105.5	38.0
Queue Delay	0.0	0.0	0.0	0.0	9.7	0.0	0.0	10.7	0.0	0.0
Total Delay	101.1	33.9	0.3	91.4	53.2	1.8	30.8	96.3	105.5	38.0
Queue Length 50th (ft)	35	23	0	142	246	2	44	~520	112	142
Queue Length 95th (ft)	#104	53	0	#311	#509	m8	84	#749	#245	230
Internal Link Dist (ft)		325			314			377		420
Turn Bay Length (ft)	150			75		75	75		150	
Base Capacity (vph)	72	370	443	242	581	604	447	698	180	442
Starvation Cap Reductn	0	0	0	0	56	0	0	71	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	0.12	0.07	0.99	0.97	0.19	0.19	1.20	0.97	0.62

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	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	43	807	1098	533
v/c Ratio	0.37	0.64	1.86dl	0.32
Control Delay	49.7	24.8	76.3	8.9
Queue Delay	0.0	0.6	2.7	0.0
Total Delay	49.7	25.3	79.0	9.0
Queue Length 50th (ft)	24	188	~382	55
Queue Length 95th (ft)	57	252	#492	87
Internal Link Dist (ft)		328	377	547
Turn Bay Length (ft)	150			
Base Capacity (vph)	118	1270	1004	1668
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	162	12	31
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.36	0.73	1.11	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.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.



Lane Group	WBT	WBR	NBT
Lane Group Flow (vph)	1247	558	554
v/c Ratio	0.71	0.63	0.86
Control Delay	14.1	7.2	35.4
Queue Delay	2.2	1.4	0.2
Total Delay	16.3	8.6	35.7
Queue Length 50th (ft)	201	92	289
Queue Length 95th (ft)	m202	m110	#524
Internal Link Dist (ft)	182		384
Turn Bay Length (ft)			
Base Capacity (vph)	1896	935	642
Starvation Cap Reductn	485	197	0
Spillback Cap Reductn	270	0	4
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.88	0.76	0.87

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	WBL	WBT	SBT
Lane Group Flow (vph)	176	1031	696
v/c Ratio	0.23	0.71	0.82
Control Delay	0.7	15.2	30.0
Queue Delay	0.3	0.5	0.0
Total Delay	1.0	15.7	30.0
Queue Length 50th (ft)	0	234	292
Queue Length 95th (ft)	m1	m199	#604
Internal Link Dist (ft)		193	669
Turn Bay Length (ft)	150		
Base Capacity (vph)	922	1850	847
Starvation Cap Reductn	352	385	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.31	0.70	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	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	22	250	1185	315	272
v/c Ratio	0.04	0.43	0.72	0.60	0.44
Control Delay	3.6	10.7	9.1	15.1	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.6	10.7	9.1	15.1	11.5
Queue Length 50th (ft)	0	30	52	49	40
Queue Length 95th (ft)	8	84	125	101	80
Internal Link Dist (ft)	207		583	246	405
Turn Bay Length (ft)		275			
Base Capacity (vph)	592	637	1767	747	883
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	0.04	0.39	0.67	0.42	0.31

Intersection Summary

Lane Group	EBT	SBT
Lane Group Flow (vph)	837	467
v/c Ratio	0.36	0.30
Control Delay	14.8	7.6
Queue Delay	0.0	0.0
Total Delay	14.8	7.6
Queue Length 50th (ft)	99	28
Queue Length 95th (ft)	129	m42
Internal Link Dist (ft)	976	388
Turn Bay Length (ft)		
Base Capacity (vph)	2330	1561
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.36	0.30

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	NBT
Lane Group Flow (vph)	956	424
v/c Ratio	0.25	0.69
Control Delay	2.1	19.8
Queue Delay	0.2	0.0
Total Delay	2.3	19.8
Queue Length 50th (ft)	18	76
Queue Length 95th (ft)	22	m100
Internal Link Dist (ft)	196	515
Turn Bay Length (ft)		
Base Capacity (vph)	3831	1414
Starvation Cap Reductn	1734	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.46	0.30

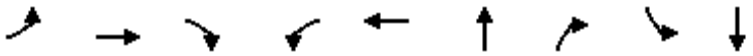
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	293	707	43	424	392	217
v/c Ratio	0.24	0.30	0.09	0.36	0.50	0.35
Control Delay	3.3	2.9	5.8	2.5	31.8	27.3
Queue Delay	1.0	0.6	0.0	0.0	0.0	0.0
Total Delay	4.3	3.5	5.8	2.5	31.8	27.3
Queue Length 50th (ft)	23	26	7	17	101	46
Queue Length 95th (ft)	44	44	21	55	135	64
Internal Link Dist (ft)		189			898	377
Turn Bay Length (ft)				150		
Base Capacity (vph)	1219	2396	464	1189	1327	1069
Starvation Cap Reductn	679	1233	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	0.54	0.61	0.09	0.36	0.30	0.20

Intersection Summary



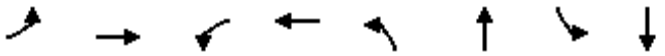
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	219	375	62	54	392	152	65	130	294
v/c Ratio	1.14	0.60	0.11	0.26	0.63	1.43	0.10	0.72	0.64
Control Delay	139.5	30.0	5.3	19.9	24.1	268.4	4.9	60.7	14.0
Queue Delay	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
Total Delay	139.5	30.0	5.3	19.9	24.7	268.4	4.9	60.7	14.0
Queue Length 50th (ft)	~147	176	0	16	118	~118	0	71	17
Queue Length 95th (ft)	#287	269	23	m30	m160	#238	23	#160	95
Internal Link Dist (ft)		339			315	246			377
Turn Bay Length (ft)	100		150	75			100	75	
Base Capacity (vph)	192	621	574	205	618	106	638	180	459
Starvation Cap Reductn	0	0	0	0	52	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	1.14	0.60	0.11	0.26	0.69	1.43	0.10	0.72	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.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	54	620	33	152	43	597	22	434
v/c Ratio	0.09	0.68	0.17	0.17	0.28	0.88	0.18	0.72
Control Delay	14.5	20.9	20.8	16.4	42.7	42.3	42.5	32.1
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	21.1	20.8	16.4	42.7	42.3	42.5	32.1
Queue Length 50th (ft)	12	196	11	50	23	275	12	211
Queue Length 95th (ft)	m30	m#397	m42	87	54	#501	36	307
Internal Link Dist (ft)		326		720		401		395
Turn Bay Length (ft)	150		100		150		100	
Base Capacity (vph)	599	909	192	906	216	713	137	627
Starvation Cap Reductn	0	39	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.71	0.17	0.17	0.20	0.84	0.16	0.69

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	NBT	SBT
Lane Group Flow (vph)	163	424	87	228	249
v/c Ratio	0.18	0.34	0.07	0.57	0.71
Control Delay	9.9	10.1	5.9	33.8	41.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	10.1	5.9	33.8	41.3
Queue Length 50th (ft)	32	84	12	109	125
Queue Length 95th (ft)	m72	m173	m35	160	182
Internal Link Dist (ft)		720	1104	908	384
Turn Bay Length (ft)	100				
Base Capacity (vph)	899	1258	1283	719	627
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	0.18	0.34	0.07	0.32	0.40

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	293	174	33	522	76
v/c Ratio	0.42	0.18	0.04	0.75	0.11
Control Delay	17.0	13.2	7.8	29.5	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	13.2	7.8	29.5	15.9
Queue Length 50th (ft)	84	46	3	241	27
Queue Length 95th (ft)	162	100	20	310	47
Internal Link Dist (ft)		1104	353	897	405
Turn Bay Length (ft)	100				
Base Capacity (vph)	698	954	831	854	822
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	0.18	0.04	0.61	0.09

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	340	840	65	1173	152	207	109	109	261
v/c Ratio	1.07	0.39	0.55	0.70	0.65	0.59	0.76	0.32	0.52
Control Delay	107.4	10.1	39.6	21.6	46.3	38.9	65.8	32.8	7.9
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Total Delay	107.4	10.1	39.6	22.0	46.3	38.9	65.8	32.8	7.9
Queue Length 50th (ft)	~216	124	35	208	79	103	58	53	0
Queue Length 95th (ft)	#382	178	m46	332	138	167	#128	96	60
Internal Link Dist (ft)		890		346		331		246	
Turn Bay Length (ft)	120		120		115		125		125
Base Capacity (vph)	318	2129	125	1667	289	429	177	418	558
Starvation Cap Reductn	0	0	0	129	0	0	0	0	0
Spillback Cap Reductn	0	133	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.42	0.52	0.76	0.53	0.48	0.62	0.26	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.

m Volume for 95th percentile queue is metered by upstream signal.

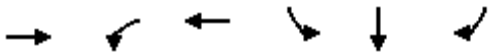


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	22	978	163	1207	261	294	163	130	33
v/c Ratio	0.25	0.76	0.75	0.71	0.76	0.81	0.61	0.54	0.10
Control Delay	56.0	22.0	43.7	7.8	50.8	41.0	47.8	44.2	0.6
Queue Delay	0.0	1.0	0.0	0.5	0.5	0.1	2.9	0.0	0.0
Total Delay	56.0	23.0	43.7	8.2	51.3	41.0	50.7	44.2	0.6
Queue Length 50th (ft)	10	256	87	51	136	113	86	71	0
Queue Length 95th (ft)	m29	#367	#184	#172	#297	188	#189	115	0
Internal Link Dist (ft)		346		168		395		179	
Turn Bay Length (ft)	100		125		100				
Base Capacity (vph)	89	1294	216	1704	343	480	266	393	461
Starvation Cap Reductn	0	29	0	158	0	0	0	0	0
Spillback Cap Reductn	0	120	0	0	7	5	41	0	7
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.83	0.75	0.78	0.78	0.62	0.72	0.33	0.07

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	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1076	554	1141	348	207	228
v/c Ratio	0.85	1.05	0.47	1.16	0.66	0.60
Control Delay	18.9	69.0	2.1	136.8	43.4	19.6
Queue Delay	14.6	22.2	3.8	0.0	0.0	0.0
Total Delay	33.5	91.3	5.9	136.8	43.4	19.6
Queue Length 50th (ft)	126	~356	18	~240	103	41
Queue Length 95th (ft)	#211	m#355	m19	#405	#183	110
Internal Link Dist (ft)	168		218		367	
Turn Bay Length (ft)						
Base Capacity (vph)	1267	527	2452	300	316	381
Starvation Cap Reductn	199	192	1200	0	0	0
Spillback Cap Reductn	0	0	73	0	0	2
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.01	1.65	0.91	1.16	0.66	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.

m Volume for 95th percentile queue is metered by upstream signal.



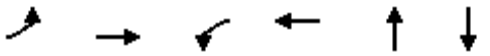
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	326	926	1565	554	576	370
v/c Ratio	1.47	0.43	1.03	0.69	0.61	0.73
Control Delay	247.1	1.5	59.2	20.7	30.8	29.3
Queue Delay	0.0	0.5	27.7	17.3	0.0	0.0
Total Delay	247.1	2.0	87.0	38.0	30.8	29.3
Queue Length 50th (ft)	~269	1	~478	168	151	138
Queue Length 95th (ft)	m#308	m85	#733	#387	179	211
Internal Link Dist (ft)		218	178		514	
Turn Bay Length (ft)						
Base Capacity (vph)	222	2144	1515	798	1244	631
Starvation Cap Reductn	0	734	450	239	0	0
Spillback Cap Reductn	0	0	227	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.47	0.66	1.47	0.99	0.46	0.59

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	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	196	1131	33	1696	294	381
v/c Ratio	1.48	0.45	0.11	0.70	1.46dl	0.85dr
Control Delay	272.9	6.5	0.8	3.5	48.8	41.0
Queue Delay	0.0	3.1	0.0	0.0	0.0	0.0
Total Delay	272.9	9.6	0.8	3.5	48.8	41.0
Queue Length 50th (ft)	~89	128	0	22	90	107
Queue Length 95th (ft)	#246	206	m1	m55	129	148
Internal Link Dist (ft)		178		1432	576	898
Turn Bay Length (ft)	100		75			
Base Capacity (vph)	132	2496	296	2422	516	697
Starvation Cap Reductn	0	1227	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	1.48	0.89	0.11	0.70	0.57	0.55

Intersection Summary

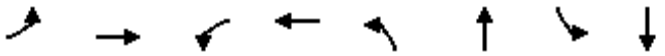
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

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

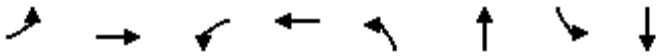


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	135	781	174	544	141	576	196	358
v/c Ratio	0.79	0.84	0.87	0.55	0.67	0.96	0.86	0.58
Control Delay	51.6	27.4	77.3	28.8	57.3	60.9	76.2	30.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.6	27.4	77.3	28.8	57.3	60.9	76.2	30.1
Queue Length 50th (ft)	74	138	93	117	86	350	124	174
Queue Length 95th (ft)	m96	m252	#222	210	149	#572	#249	273
Internal Link Dist (ft)		338		729		891		406
Turn Bay Length (ft)	150		125		150		150	
Base Capacity (vph)	171	929	200	983	242	602	228	613
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.84	0.87	0.55	0.58	0.96	0.86	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	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	54	837	64	543	65	163	228	260
v/c Ratio	0.12	0.43	0.21	0.28	0.24	0.30	0.67	0.50
Control Delay	1.4	1.3	7.8	6.4	16.5	10.7	28.5	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.4	1.3	7.8	6.4	16.5	10.7	28.5	17.8
Queue Length 50th (ft)	2	12	8	38	14	22	58	58
Queue Length 95th (ft)	m2	m14	25	60	40	58	#144	113
Internal Link Dist (ft)		729		707		887		908
Turn Bay Length (ft)	75		100		100		75	
Base Capacity (vph)	461	1939	308	1953	274	543	341	522
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.43	0.21	0.28	0.24	0.30	0.67	0.50

Intersection Summary

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

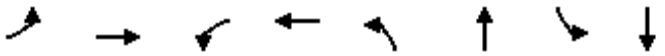
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	33	1074	63	758	130	228	87	141	43
v/c Ratio	0.12	0.59	0.35	0.42	0.30	0.35	0.24	0.23	0.08
Control Delay	8.9	11.8	10.4	5.5	21.8	17.3	16.3	15.3	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.9	11.8	10.4	5.5	21.8	17.3	16.3	15.3	5.5
Queue Length 50th (ft)	6	129	6	36	47	63	22	35	0
Queue Length 95th (ft)	19	182	m13	49	m68	m94	52	71	17
Internal Link Dist (ft)		707		320		887		416	
Turn Bay Length (ft)	100		100		100		100		75
Base Capacity (vph)	279	1807	178	1809	430	649	358	604	541
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	0.12	0.59	0.35	0.42	0.30	0.35	0.24	0.23	0.08

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	52	1154	11	816	54	566	76	33
v/c Ratio	0.22	0.70	0.09	0.50	0.10	0.77	0.47	0.05
Control Delay	8.0	8.6	11.3	12.0	11.9	23.8	25.6	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.0	8.7	11.3	12.0	11.9	23.8	25.6	8.7
Queue Length 50th (ft)	6	69	2	96	12	163	20	5
Queue Length 95th (ft)	m11	87	11	140	31	#317	#68	18
Internal Link Dist (ft)		320		512		890		897
Turn Bay Length (ft)	100		100		50		100	
Base Capacity (vph)	233	1639	124	1627	548	738	160	714
Starvation Cap Reductn	0	20	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.71	0.09	0.50	0.10	0.77	0.47	0.05

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	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	43	152	271	273	217	11	500	913	391	380	33
v/c Ratio	0.20	0.66	0.74	0.74	0.42	0.21	0.91	0.93	0.96	0.20	0.04
Control Delay	54.7	68.6	63.5	63.3	8.5	76.4	68.0	36.8	87.4	18.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	68.6	63.5	63.3	8.5	76.4	68.0	36.8	87.4	18.1	0.1
Queue Length 50th (ft)	35	126	235	236	0	10	419	558	342	83	0
Queue Length 95th (ft)	72	200	#401	#402	71	33	#691	#1001	#605	146	0
Internal Link Dist (ft)		390		1100			533			550	
Turn Bay Length (ft)	75		225			125			250		100
Base Capacity (vph)	341	356	366	369	515	52	564	984	407	1885	879
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.43	0.74	0.74	0.42	0.21	0.89	0.93	0.96	0.20	0.04

Intersection Summary

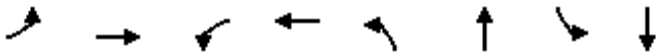
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	54	608	43	631	76	413	196	272	65
v/c Ratio	0.28	0.49	0.21	0.51	0.13	0.41	0.43	0.27	0.07
Control Delay	29.8	26.3	15.9	12.6	10.6	12.7	15.8	11.5	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.8	26.3	15.9	12.6	10.6	12.7	15.8	11.5	2.8
Queue Length 50th (ft)	24	140	10	65	20	121	62	76	0
Queue Length 95th (ft)	m55	198	m19	m107	42	187	118	122	17
Internal Link Dist (ft)		260		699		877		887	
Turn Bay Length (ft)	85		100		75		100		100
Base Capacity (vph)	194	1237	204	1243	573	1005	451	1024	899
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	0.28	0.49	0.21	0.51	0.13	0.41	0.43	0.27	0.07

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

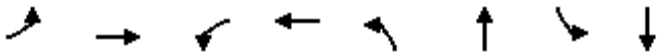


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	54	783	65	837	65	478	146	458
v/c Ratio	0.65	0.60	0.58	0.62	0.58	0.88	0.78	0.69
Control Delay	73.0	40.6	54.8	18.0	61.9	48.2	67.0	31.1
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.0	40.7	54.8	18.0	61.9	48.2	67.0	31.1
Queue Length 50th (ft)	33	234	37	125	37	246	82	217
Queue Length 95th (ft)	m#58	m291	m#85	157	#90	#415	#175	329
Internal Link Dist (ft)		339		739		884		891
Turn Bay Length (ft)	150		140		100		100	
Base Capacity (vph)	83	1309	118	1357	118	568	198	660
Starvation Cap Reductn	0	84	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.64	0.55	0.62	0.55	0.84	0.74	0.69

Intersection Summary

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

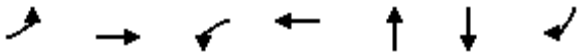
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	163	1054	76	609	22	22	120	424
v/c Ratio	0.41	0.54	0.38	0.31	0.12	0.03	0.25	0.66
Control Delay	6.6	5.7	18.5	11.4	20.9	18.4	22.6	29.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.6	5.7	18.5	11.4	20.9	18.4	22.6	29.2
Queue Length 50th (ft)	15	51	23	91	9	9	48	190
Queue Length 95th (ft)	m24	60	61	124	m26	m25	91	294
Internal Link Dist (ft)		739		700		1849		887
Turn Bay Length (ft)	75		75		100		50	
Base Capacity (vph)	394	1935	201	1940	191	652	484	640
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.54	0.38	0.31	0.12	0.03	0.25	0.66

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	54	1109	33	620	532	358	54
v/c Ratio	0.16	0.67	0.23	0.36	0.82	0.86	0.09
Control Delay	10.3	14.3	14.0	10.3	28.5	44.0	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	14.3	14.0	10.3	28.5	44.0	7.8
Queue Length 50th (ft)	10	148	7	67	152	128	0
Queue Length 95th (ft)	29	210	24	99	#315	#264	m16
Internal Link Dist (ft)		700		324	1841	887	
Turn Bay Length (ft)	60		75				75
Base Capacity (vph)	334	1660	145	1703	647	417	586
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	0.16	0.67	0.23	0.36	0.82	0.86	0.09

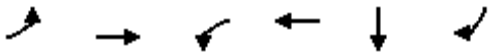
Intersection Summary

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	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	22	1435	11	543	43	43	283	130	65	44
v/c Ratio	0.05	0.72	0.10	0.26	0.05	0.10	0.46	0.24	0.24	0.08
Control Delay	7.9	15.9	10.3	9.5	2.6	25.8	31.6	20.0	26.3	13.9
Queue Delay	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.9	25.9	10.3	9.5	2.6	25.8	31.6	20.0	26.3	13.9
Queue Length 50th (ft)	5	272	3	70	0	22	155	49	28	9
Queue Length 95th (ft)	15	348	11	97	12	47	231	92	62	33
Internal Link Dist (ft)		324		505			1849			890
Turn Bay Length (ft)	75		75		75	50		50	100	
Base Capacity (vph)	472	2053	115	2115	963	444	610	548	269	579
Starvation Cap Reductn	0	602	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	0.05	0.99	0.10	0.26	0.04	0.10	0.46	0.24	0.24	0.08

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	43	1383	239	750	380	33
v/c Ratio	0.11	0.65	1.65	0.35	0.76	0.07
Control Delay	10.4	13.8	342.4	6.5	34.4	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	13.8	342.4	6.5	34.4	8.7
Queue Length 50th (ft)	7	184	~164	68	166	4
Queue Length 95th (ft)	32	#443	#328	113	193	17
Internal Link Dist (ft)		324		303	295	
Turn Bay Length (ft)	100		175			50
Base Capacity (vph)	379	2125	145	2117	804	709
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	0.11	0.65	1.65	0.35	0.47	0.05

Intersection Summary

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

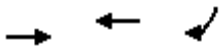
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1370	293	329	682	435
v/c Ratio	0.71	0.15	0.60	0.60	0.58
Control Delay	18.2	10.5	24.0	22.0	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	10.5	24.0	22.0	7.0
Queue Length 50th (ft)	221	31	141	146	0
Queue Length 95th (ft)	#483	73	167	146	#115
Internal Link Dist (ft)	1100	380		1000	
Turn Bay Length (ft)			200		225
Base Capacity (vph)	1917	1918	796	1641	754
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	0.71	0.15	0.41	0.42	0.58

Intersection Summary

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



Lane Group	EBT	WBT	SBR
Lane Group Flow (vph)	1457	587	402
v/c Ratio	0.41	0.29	0.40
Control Delay	0.4	9.5	1.5
Queue Delay	0.0	0.0	0.0
Total Delay	0.4	9.5	1.5
Queue Length 50th (ft)	0	67	0
Queue Length 95th (ft)	0	115	m6
Internal Link Dist (ft)	303	471	
Turn Bay Length (ft)			
Base Capacity (vph)	3539	2011	1599
Starvation Cap Reductn	0	0	198
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.41	0.29	0.29

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	918	538	446	141	370
v/c Ratio	0.59	0.37	0.32	0.16	0.39
Control Delay	8.6	0.7	10.8	11.1	3.7
Queue Delay	0.4	0.0	0.3	0.0	0.0
Total Delay	9.0	0.7	11.1	11.1	3.7
Queue Length 50th (ft)	64	0	33	34	13
Queue Length 95th (ft)	122	0	m56	64	55
Internal Link Dist (ft)	471		185	347	
Turn Bay Length (ft)		100			100
Base Capacity (vph)	1552	1441	1406	873	940
Starvation Cap Reductn	0	0	432	0	0
Spillback Cap Reductn	215	0	0	0	21
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.69	0.37	0.46	0.16	0.40

Intersection Summary

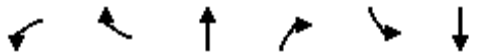
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	441	914	237	120	869	391	1087	207	380	522	174
v/c Ratio	0.89	0.74	0.37	0.67	0.97	0.78	0.96	0.35	0.87	0.49	0.30
Control Delay	69.0	36.9	14.2	71.8	65.4	58.5	57.9	13.1	69.8	35.5	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.0	36.9	14.2	71.8	65.4	58.5	57.9	13.1	69.8	35.5	7.2
Queue Length 50th (ft)	166	308	56	45	331	144	416	40	143	168	5
Queue Length 95th (ft)	#252	386	123	#87	#468	195	#561	101	#222	227	58
Internal Link Dist (ft)		745			420		460			480	
Turn Bay Length (ft)	150		110	150		150		90	150		125
Base Capacity (vph)	511	1254	643	180	896	572	1130	595	451	1056	587
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.73	0.37	0.67	0.97	0.68	0.96	0.35	0.84	0.49	0.30

Intersection Summary

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	98	130	348	54	207	337
v/c Ratio	0.13	0.17	0.73	0.12	0.69	0.39
Control Delay	19.0	4.7	40.2	6.1	48.1	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.0	4.7	40.2	6.1	48.1	16.1
Queue Length 50th (ft)	33	0	186	0	115	122
Queue Length 95th (ft)	78	38	258	22	180	143
Internal Link Dist (ft)			891			877
Turn Bay Length (ft)	150			100	150	
Base Capacity (vph)	779	769	604	555	383	1088
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	0.13	0.17	0.58	0.10	0.54	0.31

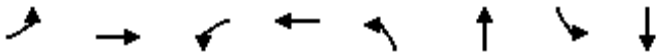
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	65	326	54	250	207	392	54	315	98
v/c Ratio	0.17	0.43	0.16	0.36	0.45	0.44	0.14	0.35	0.12
Control Delay	14.5	8.9	14.0	14.0	14.2	12.0	9.8	11.2	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	8.9	14.0	14.0	14.2	12.0	9.8	11.2	2.7
Queue Length 50th (ft)	16	52	12	57	46	84	10	66	0
Queue Length 95th (ft)	m36	m56	34	107	96	145	28	115	20
Internal Link Dist (ft)		318		327		884		884	
Turn Bay Length (ft)	50		100		100		25		50
Base Capacity (vph)	393	756	328	701	465	888	400	894	810
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	0.17	0.43	0.16	0.36	0.45	0.44	0.14	0.35	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

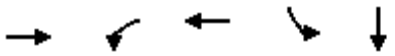


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	261	924	76	1587	11	98	98	424
v/c Ratio	1.68	0.37	0.20	0.64	0.19	0.26	0.41	1.14
Control Delay	354.3	6.4	6.7	9.7	49.8	18.6	48.3	127.1
Queue Delay	0.0	0.0	0.0	48.3	0.0	0.0	0.0	0.0
Total Delay	354.3	6.4	6.7	58.0	49.8	18.6	48.3	127.1
Queue Length 50th (ft)	~175	120	17	284	7	21	67	~344
Queue Length 95th (ft)	#347	148	36	346	27	69	122	#549
Internal Link Dist (ft)		522		182		395		398
Turn Bay Length (ft)	75		90		100		150	
Base Capacity (vph)	155	2523	382	2466	58	375	241	373
Starvation Cap Reductn	0	0	0	1023	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.68	0.37	0.20	1.10	0.19	0.26	0.41	1.14

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	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	1000	141	1207	163	468
v/c Ratio	0.58	0.73	0.72	0.26	0.78
Control Delay	12.8	38.6	15.4	17.0	28.3
Queue Delay	0.2	0.0	0.3	0.0	0.0
Total Delay	13.0	38.6	15.8	17.0	28.3
Queue Length 50th (ft)	139	42	188	37	118
Queue Length 95th (ft)	194	#139	260	100	#337
Internal Link Dist (ft)	182		196		582
Turn Bay Length (ft)		100			
Base Capacity (vph)	2398	270	2345	753	708
Starvation Cap Reductn	591	0	509	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.55	0.52	0.66	0.22	0.66

Intersection Summary

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

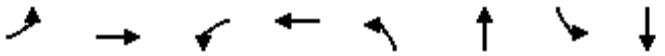


Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	304	804	1544	261	261
v/c Ratio	1.75	0.31	0.62	0.86	0.53
Control Delay	375.7	4.4	6.2	62.7	8.9
Queue Delay	0.0	1.3	0.0	0.0	0.0
Total Delay	375.7	5.7	6.2	62.7	8.9
Queue Length 50th (ft)	~161	68	160	145	0
Queue Length 95th (ft)	#324	90	212	#273	64
Internal Link Dist (ft)		196	190	795	
Turn Bay Length (ft)	75				575
Base Capacity (vph)	174	2613	2497	317	498
Starvation Cap Reductn	0	1529	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.75	0.74	0.62	0.82	0.52

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	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	22	1109	74	1147	185	55	109	435
v/c Ratio	0.14	0.90	0.47	0.93	0.69	0.08	0.20	0.58
Control Delay	40.1	39.1	32.7	31.2	38.2	11.5	18.4	24.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	39.1	32.7	31.2	38.2	11.5	18.4	24.2
Queue Length 50th (ft)	12	305	36	338	85	11	39	185
Queue Length 95th (ft)	35	#434	m39	m348	#192	34	75	280
Internal Link Dist (ft)		320		718		423		402
Turn Bay Length (ft)	100		150		100		100	
Base Capacity (vph)	157	1226	157	1236	267	727	547	755
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.90	0.47	0.93	0.69	0.08	0.20	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.



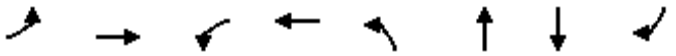
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	43	1217	76	913	467	630	109	163	489
v/c Ratio	0.36	1.10	0.64	0.81	1.33	0.65	0.12	0.67	0.51
Control Delay	41.9	74.2	52.4	23.4	192.5	19.7	2.5	32.7	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.9	74.2	52.4	23.4	192.5	19.7	2.5	32.7	16.1
Queue Length 50th (ft)	19	~402	44	271	~349	246	0	65	167
Queue Length 95th (ft)	m29	m#502	#111	#107	#535	364	22	#172	253
Internal Link Dist (ft)		718		725		385			884
Turn Bay Length (ft)	140		150		90		50	100	
Base Capacity (vph)	118	1104	118	1122	350	968	877	243	955
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	0.36	1.10	0.64	0.81	1.33	0.65	0.12	0.67	0.51

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.

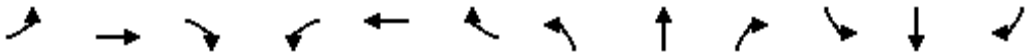
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	22	1066	43	1000	11	33	598	22
v/c Ratio	0.09	0.53	0.20	0.49	0.13	0.05	0.98	0.04
Control Delay	10.6	12.2	8.3	10.1	26.0	20.8	73.8	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.6	12.2	8.3	10.1	26.0	20.8	73.8	22.4
Queue Length 50th (ft)	5	151	11	203	4	13	361	5
Queue Length 95th (ft)	m7	m140	12	188	18	33	#571	m16
Internal Link Dist (ft)		725		706		930	1849	
Turn Bay Length (ft)	75		225		100			75
Base Capacity (vph)	238	2029	215	2033	82	621	611	534
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.53	0.20	0.49	0.13	0.05	0.98	0.04

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	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	54	935	33	11	772	65	137	222	22	120	196	185
v/c Ratio	0.37	0.40	0.03	0.09	0.37	0.07	0.73	0.60	0.05	0.73	0.49	0.38
Control Delay	41.9	17.4	5.8	36.8	8.8	1.4	48.9	32.7	0.2	55.9	33.9	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.9	17.4	5.8	36.8	8.9	1.4	48.9	32.7	0.2	55.9	33.9	6.3
Queue Length 50th (ft)	32	170	2	6	64	1	77	117	0	64	99	0
Queue Length 95th (ft)	m46	m363	m7	m15	m210	m5	98	110	0	114	144	46
Internal Link Dist (ft)		706			318			380			1841	
Turn Bay Length (ft)	200		75	100		150	175			75		50
Base Capacity (vph)	147	2365	1079	118	2070	953	354	704	714	314	761	756
Starvation Cap Reductn	0	0	0	0	362	0	0	0	0	0	0	0
Spillback Cap Reductn	0	57	0	0	0	0	0	0	1	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.41	0.03	0.09	0.45	0.07	0.39	0.32	0.03	0.38	0.26	0.24

Intersection Summary

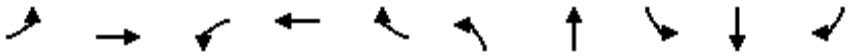
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBT
Lane Group Flow (vph)	87	989	913	43	141	130	250
v/c Ratio	0.25	0.42	0.39	0.13	0.32	0.28	0.94
Control Delay	4.1	5.4	6.7	28.5	31.1	7.0	74.9
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	4.1	5.5	6.7	28.5	31.1	7.0	74.9
Queue Length 50th (ft)	7	40	100	19	67	0	133
Queue Length 95th (ft)	12	44	132	47	120	44	m#282
Internal Link Dist (ft)		318	536		268		1849
Turn Bay Length (ft)	100						
Base Capacity (vph)	350	2382	2348	343	434	469	267
Starvation Cap Reductn	0	446	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	0.25	0.51	0.39	0.13	0.32	0.28	0.94

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.

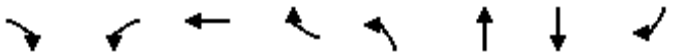


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	554	902	33	641	283	11	435	272	250	185
v/c Ratio	1.41	0.48	0.28	0.55	0.46	0.04	0.41	1.15	0.44	0.30
Control Delay	229.0	15.4	46.3	27.2	11.1	22.7	25.9	138.0	28.2	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	229.0	15.4	46.3	27.2	11.1	22.7	25.9	138.0	28.2	5.2
Queue Length 50th (ft)	~427	179	18	156	38	4	101	~184	114	0
Queue Length 95th (ft)	#624	234	48	211	106	17	144	#337	183	46
Internal Link Dist (ft)		420		420			420		420	
Turn Bay Length (ft)	275		125		75	75		175		
Base Capacity (vph)	393	1861	118	1156	616	274	1073	236	567	610
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	1.41	0.48	0.28	0.55	0.46	0.04	0.41	1.15	0.44	0.30

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	EBR	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	11	239	33	239	22	413	228	11
v/c Ratio	0.01	0.57	0.07	0.28	0.18	0.34	0.21	0.01
Control Delay	0.0	34.8	24.2	4.1	42.5	8.6	2.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	34.8	24.2	4.1	42.5	8.6	2.2	0.0
Queue Length 50th (ft)	0	121	15	0	12	90	7	0
Queue Length 95th (ft)	0	171	33	27	35	182	11	0
Internal Link Dist (ft)			974			434	380	
Turn Bay Length (ft)		250		250	125			125
Base Capacity (vph)	982	637	670	1156	330	1232	1098	962
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.38	0.05	0.21	0.07	0.34	0.21	0.01

Intersection Summary



Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	825	315	228	120
v/c Ratio	0.58	0.48	0.64	0.18
Control Delay	10.3	8.8	19.3	8.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.3	8.8	19.3	8.6
Queue Length 50th (ft)	60	31	36	16
Queue Length 95th (ft)	110	74	#96	38
Internal Link Dist (ft)	730	349		930
Turn Bay Length (ft)			100	
Base Capacity (vph)	1708	869	488	905
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	0.36	0.47	0.13

Intersection Summary

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



Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	108	609	22	598	1076
v/c Ratio	0.10	0.65	0.13	0.96	1.00
Control Delay	8.9	5.8	23.4	59.3	48.8
Queue Delay	0.0	0.0	0.0	42.3	7.5
Total Delay	8.9	5.8	23.4	101.6	56.3
Queue Length 50th (ft)	26	0	9	330	~572
Queue Length 95th (ft)	48	76	27	#546	#887
Internal Link Dist (ft)	552			267	182
Turn Bay Length (ft)		400	100		
Base Capacity (vph)	1045	933	174	621	1073
Starvation Cap Reductn	0	0	0	142	27
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.10	0.65	0.13	1.25	1.03

Intersection Summary

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

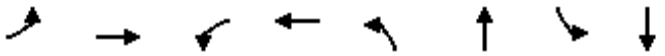
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	782	304	522	598
v/c Ratio	0.78	0.30	0.90	0.58
Control Delay	22.8	6.3	33.6	10.4
Queue Delay	0.0	0.0	0.0	0.7
Total Delay	22.8	6.3	33.6	11.2
Queue Length 50th (ft)	112	38	130	110
Queue Length 95th (ft)	#176	73	#318	188
Internal Link Dist (ft)	759	306		267
Turn Bay Length (ft)			100	
Base Capacity (vph)	1096	1121	640	1138
Starvation Cap Reductn	0	0	0	251
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.71	0.27	0.82	0.67

Intersection Summary

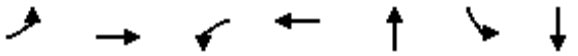
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	65	380	140	670	141	348	11	174
v/c Ratio	0.17	0.33	0.24	0.59	0.52	0.74	0.08	0.38
Control Delay	3.8	3.1	4.8	13.4	38.0	43.3	27.3	29.9
Queue Delay	0.0	0.9	0.0	4.9	0.0	0.0	0.0	0.0
Total Delay	3.8	4.0	4.8	18.2	38.0	43.3	27.3	29.9
Queue Length 50th (ft)	7	41	8	302	77	201	5	85
Queue Length 95th (ft)	m13	m70	m8	m85	128	277	19	133
Internal Link Dist (ft)		314		323		385		393
Turn Bay Length (ft)	150		150		150		150	
Base Capacity (vph)	376	1161	585	1133	341	584	164	574
Starvation Cap Reductn	0	498	0	385	0	0	0	0
Spillback Cap Reductn	0	1	0	133	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.57	0.24	0.90	0.41	0.60	0.07	0.30

Intersection Summary

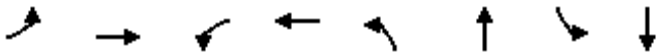
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	174	446	43	250	511	70	486
v/c Ratio	0.79	0.44	0.12	0.36	0.98	0.11	0.74
Control Delay	76.1	6.4	18.8	22.4	64.5	18.5	30.4
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0	0.8
Total Delay	76.1	6.7	18.8	22.4	64.5	18.5	31.2
Queue Length 50th (ft)	100	40	16	140	266	25	211
Queue Length 95th (ft)	m#196	83	m31	m148	#467	52	325
Internal Link Dist (ft)		315		326	889		385
Turn Bay Length (ft)	75		75			150	
Base Capacity (vph)	224	1007	356	700	559	668	708
Starvation Cap Reductn	0	152	0	0	0	0	62
Spillback Cap Reductn	0	108	0	19	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.52	0.12	0.37	0.91	0.10	0.75

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.

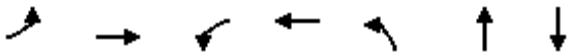


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	141	576	11	576	152	554	43	282
v/c Ratio	0.46	0.62	0.04	0.62	0.51	0.96	0.35	0.49
Control Delay	12.1	11.6	7.8	13.3	24.4	53.2	25.4	18.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.1	11.6	7.8	13.3	24.4	53.2	25.4	18.7
Queue Length 50th (ft)	24	107	2	126	44	192	12	73
Queue Length 95th (ft)	m29	m131	9	217	96	#378	39	136
Internal Link Dist (ft)		1209		158		224		156
Turn Bay Length (ft)	150		150		75		75	
Base Capacity (vph)	308	935	308	934	296	575	124	575
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.62	0.04	0.62	0.51	0.96	0.35	0.49

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	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	22	141	20	427	10	118	555
v/c Ratio	0.06	0.15	0.03	0.46	0.05	0.17	0.90
Control Delay	8.3	8.1	7.1	7.3	13.2	11.8	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	8.1	7.1	7.3	13.2	11.8	37.4
Queue Length 50th (ft)	4	24	3	52	2	23	164
Queue Length 95th (ft)	14	49	m9	133	11	53	#346
Internal Link Dist (ft)		721		318		186	883
Turn Bay Length (ft)	100		75		100		
Base Capacity (vph)	393	917	621	922	221	677	617
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	0.06	0.15	0.03	0.46	0.05	0.17	0.90

Intersection Summary

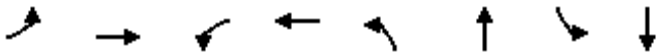
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	22	305	33	619	348	261
v/c Ratio	0.06	0.27	0.05	0.54	0.79	0.74
Control Delay	9.8	9.6	3.4	5.8	39.9	40.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	9.6	3.4	5.8	39.9	40.1
Queue Length 50th (ft)	4	68	3	50	172	130
Queue Length 95th (ft)	19	145	m7	248	236	189
Internal Link Dist (ft)		284		1059	378	233
Turn Bay Length (ft)	150		150			
Base Capacity (vph)	373	1138	629	1141	603	482
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	0.06	0.27	0.05	0.54	0.58	0.54

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	304	967	141	1055	272	456	11	631
v/c Ratio	1.15	0.81	0.81	1.03	1.18	0.60	0.11	1.16
Control Delay	137.2	32.2	76.9	65.1	157.2	23.9	48.1	120.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	137.2	32.2	76.9	65.1	157.2	23.9	48.1	120.0
Queue Length 50th (ft)	~230	202	95	~384	~209	186	7	~416
Queue Length 95th (ft)	#384	278	m#169	m#494	#370	333	26	#634
Internal Link Dist (ft)		1432		669		887		351
Turn Bay Length (ft)	150		150		100		150	
Base Capacity (vph)	265	1194	177	1024	230	762	97	543
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.15	0.81	0.80	1.03	1.18	0.60	0.11	1.16

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	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	54	1217	22	946	609	532
v/c Ratio	0.36	0.84	0.15	0.66	0.94	0.77
Control Delay	16.5	23.9	7.8	10.4	41.2	21.3
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	16.5	24.2	7.8	10.4	41.2	21.3
Queue Length 50th (ft)	15	313	2	64	155	118
Queue Length 95th (ft)	m22	368	m5	113	#341	#264
Internal Link Dist (ft)		669		338	884	889
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	148	1446	148	1444	659	709
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	28	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.86	0.15	0.66	0.92	0.75

Intersection Summary

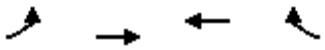
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	152	978	22	870	435	653
v/c Ratio	0.76	0.60	0.14	0.56	0.86	0.92
Control Delay	41.4	14.9	5.8	7.2	41.7	44.6
Queue Delay	0.0	0.0	0.0	0.6	0.0	0.0
Total Delay	41.4	14.9	5.8	7.8	41.7	44.6
Queue Length 50th (ft)	48	150	2	33	213	333
Queue Length 95th (ft)	#178	181	m4	41	#400	#565
Internal Link Dist (ft)		699		339	883	884
Turn Bay Length (ft)	75		75			
Base Capacity (vph)	199	1630	162	1546	504	706
Starvation Cap Reductn	0	0	0	303	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.60	0.14	0.70	0.86	0.92

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
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m Volume for 95th percentile queue is metered by upstream signal.



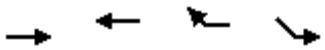
Lane Group	EBL	EBT	WBT	WBR
Lane Group Flow (vph)	1120	859	293	728
v/c Ratio	1.04	0.24	0.29	0.46
Control Delay	55.5	0.2	19.0	1.0
Queue Delay	24.1	0.0	0.0	0.0
Total Delay	79.6	0.2	19.0	1.0
Queue Length 50th (ft)	~573	0	41	0
Queue Length 95th (ft)	#801	0	m63	m7
Internal Link Dist (ft)		380	250	
Turn Bay Length (ft)	200			125
Base Capacity (vph)	1078	3539	995	1583
Starvation Cap Reductn	111	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.16	0.24	0.29	0.46

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
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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	WBT	WBR	SEL
Lane Group Flow (vph)	750	957	511	859
v/c Ratio	0.75	0.83	0.35	0.41
Control Delay	27.9	22.6	0.7	8.4
Queue Delay	5.2	0.0	0.0	0.3
Total Delay	33.0	22.6	0.7	8.6
Queue Length 50th (ft)	170	139	0	95
Queue Length 95th (ft)	236	#232	0	130
Internal Link Dist (ft)	185	745		250
Turn Bay Length (ft)			150	
Base Capacity (vph)	995	1152	1441	2092
Starvation Cap Reductn	184	0	0	565
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.92	0.83	0.35	0.56

Intersection Summary

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

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