

**APPENDIX F:
TRAFFIC**

Roadway Segment LOS

- Existing Conditions

- General Plan Update Conditions

Existing Roadway Segment LOS																		
GIS Segment ID	Roadway	ID	From	To	ADT	Number of Travel Lanes	Median (Y/N)	Posted Speed	Classification	Lanes	Median/TWLTL	Posted				LOS	V/C Ratio	
												Speed	C or Better	D	E			
115	Bader	1	Sheldon Rd	Bond Rd	6,060	2	N	45	2no45	2	No	45	9,800	17,700	18,900	C or Better	0.32	
61	Big Horn Blvd	2	Franklin Blvd	Bruceville Rd	18,500	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.49	
59		3	Bruceville Rd	Laguna Blvd	20,830	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.55	
46		4	Laguna Blvd	Elk Grove Blvd	15,500	4	Y	40	4yes40	4	Yes	40	18,000	35,300	37,900	C or Better	0.41	
43		5	Elk Grove Blvd	Lotz Pkwy	11,390	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.30	
29		6	Lotz Pkwy	Whitelock Pkwy	6,500	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.17	
501		7	Whitelock Pkwy	Bilby Rd	-	6	Y	55	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	-	
502		8	Bilby Rd	Kammerer Rd	-	6	Y	55	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	-	
503		9	Kammerer Rd	Eschinger Rd	-	6	Y	55	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	-	
26		Bilby Rd	10	Franklin Blvd	Willard Pkwy	8,220	2	N	30	2no30	2	No	30	5,600	14,600	18,900	D	0.43
22	11		Willard Pkwy	Bruceville Rd	6,830	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.36	
23	12		Bruceville Rd	Big Horn Blvd	280	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.01	
514	13		Big Horn Blvd	Lotz Pkwy	-	6	Y	55	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	-	
515	14		Lotz Pkwy	Promenade Pkwy	-	6	Y	55	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	-	
153	Bond Rd	15	SR 99	E Stockton Blvd	31,110	6	Y	45	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.57	
148		16	E Stockton Blvd	Elk Crest Dr	31,000	5	Y	45	5yes45	5	Yes	45	26,700	45,600	46,100	D	0.67	
145		17	Elk Crest Dr	Elk Grove Florin Rd	30,890	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.82	
97		18	Elk Grove Florin Rd	Waterman Rd	25,830	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.68	
98		19	Waterman Rd	Bradshaw Rd	17,940	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.47	
104		20	Bradshaw Rd	Bader Rd	12,560	2	N	45	2no45	2	No	45	9,800	17,700	18,900	D	0.66	
105		21	Bader Rd	Grant Line Rd	6,390	2	N	45	2no45	2	No	45	9,800	17,700	18,900	C or Better	0.34	
124	Bradshaw Rd	22	Vintage Park Dr	Calvine Rd	19,940	2	Y	55	2yes55	2	Yes	55	13,200	19,600	19,900	F	1.00	
125		23	Calvine Rd	Sheldon Rd	10,670	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.56	
114		24	Sheldon Rd	Bond Rd	11,890	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.63	
103		25	Bond Rd	Elk Grove Blvd	9,440	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.50	
11		26	Elk Grove Blvd	Grant Line Rd	6,000	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.32	
62	Bruceville Rd	27	Damascus Dr	Sheldon Rd	17,500	4	Y	40	4yes40	4	Yes	40	18,000	35,300	37,900	C or Better	0.46	
60		28	Sheldon Rd	Big Horn Blvd	26,000	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.69	
58		29	Big Horn Blvd	Laguna Blvd	25,500	4	Y	40	4yes40	4	Yes	40	18,000	35,300	37,900	D	0.67	
53		30	Laguna Blvd	Elk Grove Blvd	23,780	6	Y	40	6yes40	6	Yes	40	26,700	51,500	54,300	C or Better	0.44	
49		31	Elk Grove Blvd	Whitelock Pkwy	19,440	4	Y	40	4yes40	4	Yes	40	18,000	35,300	37,900	D	0.51	
21		32	Whitelock Pkwy	Bilby Rd	8,170	2	N	45	2no45	2	No	45	9,800	17,700	18,900	C or Better	0.43	
20		33	Bilby Rd	Kammerer Rd	7,330	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.39	
19		34	Kammerer Rd	Eschinger Rd	2,280	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.12	
129	Calvine Rd	35	Power Inn Rd	Elk Grove Florin Rd	31,830	5	Y	45	5yes45	5	Yes	45	26,700	45,600	46,100	D	0.69	
131		36	Elk Grove Florin Rd	Waterman Rd	28,220	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.74	
130		37	Waterman Rd	Bradshaw Rd	22,610	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.60	
123		38	Bradshaw Rd	Vineyard Rd	11,110	4	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.59	
154		39	Vineyard Rd	Excelsior Rd	11,110	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.59	
122		40	Excelsior Rd	Grant Line Rd	4,830	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.26	
63	Center Parkway	41	Laguna Village	Bruceville Rd	11,830	4	Y	40	4yes40	4	Yes	40	18,000	35,300	37,900	C or Better	0.31	
14	E. Stockton Blvd	42	Grant Line Rd	Elk Grove Florin Rd	8,330	2	N	40	2no40	2	No	40	8,400	16,600	18,900	C or Better	0.44	
76	Elk Grove Blvd	43	I-5	Harbour Point Dr	26,440	6	Y	45	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.49	
74		44	Harbour Point Dr	Four Winds Dr	30,670	6	Y	50	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.56	
72		45	Four Winds Dr	Franklin Blvd	40,890	6	Y	50	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.75	
55		46	Franklin Blvd	Bruceville Rd	33,060	6	Y	50	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.61	
48		47	Bruceville Rd	Big Horn Blvd	33,330	6	Y	50	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.61	
45		48	Big Horn Blvd	Laguna Springs Dr	36,780	6	Y	50	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.68	
81		49	Laguna Springs Dr	Auto Center Dr	37,440	6	Y	50	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.69	
82		50	Auto Center Dr	SR 99	39,560	6	Y	50	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.73	
84		51	SR 99	Emerald Vista Dr / E Stockton Blvd	40,440	6	Y	50	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.74	
92		52	Emerald Vista Dr / E Stockton Blvd	Elk Grove Florin Rd	29,890	4	Y	35	4yes35	4	Yes	35	14,700	33,300	37,900	D	0.79	
94		53	Elk Grove Florin Rd	Waterman Rd	14,280	2	Y	25	2yes25	2	Yes	25	4,400	14,300	19,900	D	0.72	
102		54	Waterman Rd	Bradshaw Rd	10,610	2	Y	35	2yes35	2	Yes	35	7,400	16,500	19,900	D	0.53	
9		55	Bradshaw Rd	Grant Line Rd	4,110	2	N	40	2no40	2	No	40	8,400	16,600	18,900	C or Better	0.22	
128		Elk Grove Florin Rd	56	Vintage Park Dr	Calvine Rd	30,220	5	Y	45	5yes45	5	Yes	45	26,700	45,600	46,100	D	0.66
132			57	Calvine Rd	Sheldon Rd	28,720	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.76
99	58		Sheldon Rd	Bond Rd	24,720	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.65	
95	59		Bond Rd	Elk Grove Blvd	19,440	4	Y	35	4yes35	4	Yes	35	14,700	33,300	37,900	D	0.51	
156	60		Elk Grove Blvd	E Stockton Blvd	16,490	2	N	35	2no35	2	No	35	7,000	15,700	18,900	E	0.87	

Existing Roadway Segment LOS																	
GIS Segment ID	Roadway	ID	From	To	ADT	Number of Travel Lanes	Median (Y/N)	Posted		Lanes	Median/TWLTL	Posted			LOS	V/C Ratio	
								Speed	Classification			Speed	C or Better	D			E
508	Eschinger Rd	61	Willard Pkwy	Bruceville Rd	710	2	Y	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.04
509		62	Bruceville Rd	Big Horn Blvd	710	2	Y	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.04
510		63	Big Horn Blvd	Lotz Pkwy	710	2	Y	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.04
511		64	Lotz Pkwy	Promenade Pkwy	710	2	Y	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.04
121	Excelsior Rd	65	Gerber Rd	Calvine Rd	6,110	2	N	45	2no45	2	No	45	9,800	17,700	18,900	C or Better	0.32
120		66	Calvine Rd	Sheldon Rd	5,110	2	N	45	2no45	2	No	45	9,800	17,700	18,900	C or Better	0.27
66	Franklin Blvd	67	Sims Rd	Big Horn Blvd	30,000	6	Y	45	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.55
64		68	Big Horn Blvd	Laguna Blvd	28,110	5	Y	45	5yes45	5	Yes	45	26,700	45,600	46,100	D	0.61
68		69	Laguna Blvd	Elk Grove Blvd	20,670	6	Y	45	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.38
101		70	Elk Grove Blvd	Whitelock Pkwy	20,780	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.55
516		71	Whitelock Pkwy	Bilby Rd	1,010	6	Y	55	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	0.01
517		72	Bilby Rd	Hood Franklin Rd	5,660	6	Y	55	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	0.05
518		73	Hood Franklin Rd	Lambert Rd	1,660	6	Y	55	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	0.02
119	Grant Line Rd	74	Sloughhouse Rd	Calvine Rd	19,670	2	N	55	2no55	2	No	55	12,500	18,600	18,900	F	1.04
118		75	Calvine Rd	Sheldon Rd	16,060	2	N	55	2no55	2	No	55	12,500	18,600	18,900	D	0.85
109		76	Sheldon Rd	Wilton Rd	18,830	2	N	55	2no55	2	No	55	12,500	18,600	18,900	E	1.00
107		77	Wilton Rd	Bond Rd	17,220	2	N	55	2no55	2	No	55	12,500	18,600	18,900	D	0.91
10		78	Bond Rd	Elk Grove Blvd	12,000	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.63
1		79	Elk Grove Blvd	Bradshaw Rd	8,220	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.43
2		80	Bradshaw Rd	Mosher Rd	13,890	2	N	55	2no55	2	No	55	12,500	18,600	18,900	D	0.73
3		81	Mosher Rd	Waterman Rd	14,890	2	N	55	2no55	2	No	55	12,500	18,600	18,900	D	0.79
4		82	Waterman Rd	E. Stockton / Survey Rd	19,330	4	Y	55	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.51
5		83	E. Stockton / Survey Rd	SR 99	23,940	6	Y	55	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.44
79	Harbour Point Dr	84	Elk Grove Blvd	Laguna Blvd	11,610	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.31
157	Hood Franklin Rd	85	I-5	Franklin Blvd	6,900	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.37
519	Kammerer Rd	86	Franklin Blvd	Willard Pkwy	7,610	2	Y	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.40
520		87	Willard Pkwy	Bruceville Rd	7,610	2	Y	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.40
521		88	Bruceville Rd	Big Horn Blvd	7,610	2	Y	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.40
18		89	Big Horn Blvd	Lotz Pkwy	7,610	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.40
8		90	Lotz Pkwy	Promenade Pkwy	7,670	6	Y	55	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.14
7		91	Promenade Pkwy	SR 99	12,890	6	Y	55	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.24
71	Laguna Blvd	92	SR 99	Franklin Blvd	31,500	6	Y	45	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.58
57		93	Franklin Blvd	Bruceville Rd	29,220	6	Y	45	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.54
54		94	Bruceville Rd	Big Horn Blvd	29,330	6	Y	45	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.54
90		95	Big Horn Blvd	Laguna Springs Dr	36,280	8	Y	45	8yes55M	8	Yes	55	57,600	64,800	72,000	C or Better	0.50
151		96	Laguna Springs Dr	SR 99	35,440	7	Y	45	7yes45	7	Yes	45	44,800	59,400	63,200	C or Better	0.56
155	Laguna Springs Dr	97	Laguna Blvd	Laguna Palms Wy	12,000	4	Y	35	4yes35	4	Yes	35	14,700	33,300	37,900	C or Better	0.32
89		98	Laguna Palms Wy	Elk Grove Blvd	12,000	2	Y	35	2yes35	2	Yes	35	7,400	16,500	19,900	D	0.60
34		99	Elk Grove Blvd	Lotz Pkwy	4,610	4	Y	35	4yes35	4	Yes	35	14,700	33,300	37,900	C or Better	0.12
17	Lent Ranch Pkwy	100	Kammerer Rd	Promenade Pkwy	110	4	Y	35	4yes35	4	Yes	35	14,700	33,300	37,900	C or Better	0.00
143	Lewis Stein Rd	101	Sheldon Rd	Big Horn Blvd	10,720	2	Y	35	2yes35	2	Yes	35	7,400	16,500	19,900	D	0.54
31	Lotz Pkwy	102	Big Horn Blvd	Laguna Springs Dr	3,000	4	Y	35	4yes35	4	Yes	35	14,700	33,300	37,900	C or Better	0.08
33		103	Laguna Springs Dr	Whitelock Pkwy	670	4	Y	35	4yes35	4	Yes	35	14,700	33,300	37,900	C or Better	0.02
504		104	Whitelock Pkwy	Promenade Pkwy	-	6	Y	55	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	-
505		105	Promenade Pkwy	Bilby Rd	-	6	Y	55	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	-
506		106	Bilby Rd	Kammerer Rd	-	6	Y	55	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	-
507		107	Kammerer Rd	Eschinger Rd	-	6	Y	55	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	-
13	Mosher	108	Grant Line Rd	Waterman Rd	2,000	2	N	50	2yes55	2	Yes	55	13,200	19,600	19,900	C or Better	0.10
522	Pleasant Grove School Rd	109	Bader Rd	Grant Line Rd	-	2	N	45	2no45	2	No	45	9,800	17,700	18,900	C or Better	-
136	Power Inn Rd	110	Calvine Rd	Sheldon Rd	13,440	4	Y	35	4yes35	4	Yes	35	14,700	33,300	37,900	C or Better	0.35
512	Promenade Pkwy	111	Lotz Pkwy	Bilby Rd	5,000	2	Y	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.26
16		112	Bilby Rd	Kammerer Rd	5,280	6	Y	45	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.10
513		113	Kammerer Rd	Eschinger Rd	-	6	Y	55	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	-
142	Sheldon Rd	114	Bruceville Rd	Lewis Stein Rd	18,720	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.49
141		115	Lewis Stein Rd	SR 99	25,940	6	Y	45	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.48
139		116	SR 99	E. Stockton Blvd	34,170	6	Y	45	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.63
137		117	E. Stockton Blvd	Power Inn Rd	30,670	6	Y	45	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.56
134		118	Power Inn Rd	Elk Grove Florin Rd	22,500	4	Y	45	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.59
111		119	Elk Grove Florin Rd	Waterman Rd	11,780	2	N	45	2no45	2	No	45	9,800	17,700	18,900	D	0.62

Existing Roadway Segment LOS

GIS Segment ID	Roadway	ID	From	To	ADT	Number of Travel Lanes	Median (Y/N)	Posted Speed	Classification	Lanes	Median/TWLTL	Posted				LOS	V/C Ratio
												Speed	C or Better	D	E		
113		120	Waterman Rd	Bradshaw Rd	7,110	2	N	45	2no45	2	No	45	9,800	17,700	18,900	C or Better	0.38
116		121	Bradshaw Rd	Bader Rd	6,390	2	N	45	2no45	2	No	45	9,800	17,700	18,900	C or Better	0.34
117		122	Bader Rd	Dillard Oaks Ct	5,610	2	N	45	2no45	2	No	45	9,800	17,700	18,900	C or Better	0.30
110		123	Excelsior Rd	Grant Line Rd	6,670	2	N	45	2no45	2	No	45	9,800	17,700	18,900	C or Better	0.35
127	Waterman Rd	124	Vintage Park Dr	Calvine Rd	9,220	2	Y	55	2yes55	2	Yes	55	13,200	19,600	19,900	C or Better	0.46
126		125	Calvine Rd	Sheldon Rd	10,060	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.53
112		126	Sheldon Rd	Bond Rd	9,940	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.53
96		127	Bond Rd	Elk Grove Blvd	11,560	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.61
12		128	Elk Grove Blvd	Grant Line Rd	7,110	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.38
100	Whitelock Pkwy	129	Franklin Blvd	Bruceville Rd	14,000	4	Y	40	4yes40	4	Yes	40	18,000	35,300	37,900	C or Better	0.37
27		130	Bruceville Rd	Big Horn Blvd	7,440	4	Y	40	4yes40	4	Yes	40	18,000	35,300	37,900	C or Better	0.20
158		131	Big Horn Blvd	Lotz Pkwy	5,190	2	N	40	2no40	2	No	40	8,400	16,600	18,900	C or Better	0.27
500		132	Lotz Pkwy	SR 99	-	6	Y	55	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	-
24	Willard Pkwy	133	Whitelock Pkwy	Bilby	6,940	4	Y	50	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.18
25		134	Bilby Rd	Kammerer Rd	1,280	2	Y	50	2yes45	2	Yes	45	10,300	18,600	19,900	C or Better	0.06
108	Wilton Rd	135	Grant Line Rd	Leisure Oak Ln	9,940	2	N	55	2no55	2	No	55	12,500	18,600	18,900	C or Better	0.53
532	SR-99	136	Calvine Rd	Sheldon Rd	104,475	4			4Fwy	4			61,600	74,400	80,000	F	1.31
523		137	Sheldon Rd	Bond Rd	96,525	4			4Fwy	4			61,600	74,400	80,000	F	1.21
524		138	Bond Rd	Elk Grove Blvd	81,280	4			4Fwy	4			61,600	74,400	80,000	F	1.02
525		139	Elk Grove Blvd	Whitelock Pkwy	71,500	4			4Fwy	4			61,600	74,400	80,000	D	0.89
526		140	Whitelock Pkwy	Grant Line Rd	71,500	4			4Fwy	4			61,600	74,400	80,000	D	0.89
527	141	Grant Line Rd	Eschinger Rd	76,900	4			4Fwy	4			61,600	74,400	80,000	E	0.96	
528	I-5	142	Cosumnes River Blvd	Laguna Blvd	95,600	6			6Fwy	6			92,400	111,600	120,000	D	0.80
529		143	Laguna Blvd	Elk Grove Blvd	76,700	4			4Fwy	4			61,600	74,400	80,000	E	0.96
530		144	Elk Grove Blvd	Hood Franklin Rd	64,000	4			4Fwy	4			61,600	74,400	80,000	D	0.80
531		145	Hood Franklin Rd	Twin Cities Rd	53,000	4			4Fwy	4			61,600	74,400	80,000	C or Better	0.66

General Plan Update Roadway Segment LOS

GIS Segment ID	Roadway	ID	From	To	Forecast	Classification	Lanes	Median/TWLTL	Speed	Volume Threshold by LOS			LOS	V/C Ratio
										C or Better	D	E		
115	Bader	1	Sheldon Rd	Bond Rd	9,000	2no45	2	No	45	9,800	17,700	18,900	C or Better	0.48
61	Big Horn Blvd	2	Franklin Blvd	Bruceville Rd	19,500	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.51
59		3	Bruceville Rd	Laguna Blvd	33,900	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.89
46		4	Laguna Blvd	Elk Grove Blvd	38,500	4yes45	4	Yes	45	21,400	37,200	37,900	F	1.02
43		5	Elk Grove Blvd	Lotz Pkwy	34,100	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.90
29		6	Lotz Pkwy	Whitelock Pkwy	31,100	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.82
501		7	Whitelock Pkwy	Bilby Rd	28,700	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.76
502		8	Bilby Rd	Kammerer Rd	29,800	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.79
503		9	Kammerer Rd	Eschinger Rd	35,300	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.65
26		Bilby Rd	10	Franklin Blvd	Willard Pkwy	10,600	2yes30	2	Yes	30	5,900	15,400	19,900	D
22	11		Willard Pkwy	Bruceville Rd	13,600	2yes45	2	Yes	45	10,300	18,600	19,900	D	0.68
23	12		Bruceville Rd	Big Horn Blvd	6,400	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.17
514	13		Big Horn Blvd	Lotz Pkwy	7,600	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.20
515	14		Lotz Pkwy	Promenade Pkwy	7,400	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.20
153	Bond Rd	15	SR 99	E Stockton Blvd	44,800	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.83
148		16	E Stockton Blvd	Elk Crest Dr	54,100	6yes45	6	Yes	45	31,900	54,000	54,300	E	1.00
145		17	Elk Crest Dr	Elk Grove Florin Rd	43,800	4yes45	4	Yes	45	21,400	37,200	37,900	F	1.16
97		18	Elk Grove Florin Rd	Waterman Rd	41,200	4yes45	4	Yes	45	21,400	37,200	37,900	F	1.09
98		19	Waterman Rd	Bradshaw Rd	32,000	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.84
104		20	Bradshaw Rd	Bader Rd	16,300	2no45	2	No	45	9,800	17,700	18,900	D	0.86
105		21	Bader Rd	Grant Line Rd	10,200	2no45	2	No	45	9,800	17,700	18,900	D	0.54
124	Bradshaw Rd	22	Vintage Park Dr	Calvine Rd	38,300	4yes45	4	Yes	45	21,400	37,200	37,900	F	1.01
125		23	Calvine Rd	Sheldon Rd	37,200	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.98
114		24	Sheldon Rd	Bond Rd	39,800	4yes45	4	Yes	45	21,400	37,200	37,900	F	1.05
103		25	Bond Rd	Elk Grove Blvd	39,400	4yes45	4	Yes	45	21,400	37,200	37,900	F	1.04
11		26	Elk Grove Blvd	Grant Line Rd	37,500	4yes45	4	Yes	45	21,400	37,200	37,900	E	0.99
62	Bruceville Rd	27	Damascus Dr	Sheldon Rd	37,800	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.70
60		28	Sheldon Rd	Big Horn Blvd	60,100	6yes45	6	Yes	45	31,900	54,000	54,300	F	1.11
58		29	Big Horn Blvd	Laguna Blvd	51,500	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.95
53		30	Laguna Blvd	Elk Grove Blvd	38,000	4yes45	4	Yes	45	21,400	37,200	37,900	F	1.00
49		31	Elk Grove Blvd	Whitelock Pkwy	41,100	4yes45	4	Yes	45	21,400	37,200	37,900	F	1.08
21		32	Whitelock Pkwy	Bilby Rd	29,800	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.79
20		33	Bilby Rd	Kammerer Rd	27,700	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.73
19		34	Kammerer Rd	Eschinger Rd	34,900	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.92
129	Calvine Rd	35	Power Inn Rd	Elk Grove Florin Rd	60,000	6yes45	6	Yes	45	31,900	54,000	54,300	F	1.10
131		36	Elk Grove Florin Rd	Waterman Rd	51,600	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.95
130		37	Waterman Rd	Bradshaw Rd	34,300	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.91
123		38	Bradshaw Rd	Vineyard Rd	29,300	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.77
154		39	Vineyard Rd	Excelsior Rd	26,500	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.70
122		40	Excelsior Rd	Grant Line Rd	22,500	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.59
63	Center Parkway	41	Laguna Village	Bruceville Rd	22,100	6yes40	6	Yes	40	26,700	51,500	54,300	C or Better	0.41
14	E. Stockton Blvd	42	Grant Line Rd	Elk Grove Florin Rd	27,900	2no40	2	No	40	8,400	16,600	18,900	F	1.48
76	Elk Grove Blvd	43	I-5	Harbour Point Dr	35,400	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.65
74		44	Harbour Point Dr	Four Winds Dr	40,400	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.74
72		45	Four Winds Dr	Franklin Blvd	49,200	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.91
55		46	Franklin Blvd	Bruceville Rd	42,400	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.78
48		47	Bruceville Rd	Big Horn Blvd	53,500	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.99
45		48	Big Horn Blvd	Laguna Springs Dr	51,800	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.95
81		49	Laguna Springs Dr	Auto Center Dr	55,600	6yes45	6	Yes	45	31,900	54,000	54,300	F	1.02
82		50	Auto Center Dr	SR 99	59,700	6yes45	6	Yes	45	31,900	54,000	54,300	F	1.10

General Plan Update Roadway Segment LOS

GIS Segment ID	Roadway	ID	From	To	Forecast	Classification	Lanes	Median/TWLTL	Speed	Volume Threshold by LOS			LOS	V/C Ratio
										C or Better	D	E		
84		51	SR 99	Emerald Vista Dr / E Stockton Blvd	64,700	6yes45	6	Yes	45	31,900	54,000	54,300	F	1.19
92		52	Emerald Vista Dr / E Stockton Blvd	Elk Grove Florin Rd	48,400	4yes35	4	Yes	35	14,700	33,300	37,900	F	1.28
94		53	Elk Grove Florin Rd	Waterman Rd	19,700	2yes25	2	Yes	25	4,400	14,300	19,900	E	0.99
102		54	Waterman Rd	Bradshaw Rd	16,800	2yes35	2	Yes	35	7,400	16,500	19,900	E	0.84
9		55	Bradshaw Rd	Grant Line Rd	8,100	2yes35	2	Yes	35	7,400	16,500	19,900	D	0.41
128	Elk Grove Florin Rd	56	Vintage Park Dr	Calvine Rd	53,000	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.98
132		57	Calvine Rd	Sheldon Rd	56,400	6yes45	6	Yes	45	31,900	54,000	54,300	F	1.04
99		58	Sheldon Rd	Bond Rd	41,200	4yes45	4	Yes	45	21,400	37,200	37,900	F	1.09
95		59	Bond Rd	Elk Grove Blvd	35,800	4yes35	4	Yes	35	14,700	33,300	37,900	E	0.94
156		60	Elk Grove Blvd	E Stockton Blvd	19,300	2no35	2	No	35	7,000	15,700	18,900	F	1.02
508	Eschinger Rd	61	Willard Pkwy	Bruceville Rd	19,400	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.51
509		62	Bruceville Rd	Big Horn Blvd	25,900	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.68
510		63	Big Horn Blvd	Lotz Pkwy	31,900	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.84
511		64	Lotz Pkwy	Promenade Pkwy	33,600	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.62
121	Excelsior Rd	65	Gerber Rd	Calvine Rd	19,300	2no45	2	No	45	9,800	17,700	18,900	F	1.02
120		66	Calvine Rd	Sheldon Rd	16,300	2no45	2	No	45	9,800	17,700	18,900	D	0.86
66	Franklin Blvd	67	Sims Rd	Big Horn Blvd	41,200	4yes45	4	Yes	45	21,400	37,200	37,900	F	1.09
64		68	Big Horn Blvd	Laguna Blvd	35,400	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.93
68		69	Laguna Blvd	Elk Grove Blvd	31,900	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.84
101		70	Elk Grove Blvd	Whitelock Pkwy	34,200	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.90
516		71	Whitelock Pkwy	Bilby Rd	2,200	2yes55	2	Yes	55	13,200	19,600	19,900	C or Better	0.11
517		72	Bilby Rd	Hood Franklin Rd	3,900	2yes55	2	Yes	55	13,200	19,600	19,900	C or Better	0.20
518		73	Hood Franklin Rd	Lambert Rd	1,800	2yes55	2	Yes	55	13,200	19,600	19,900	C or Better	0.09
119	Grant Line Rd	74	Sloughhouse Rd	Calvine Rd	40,500	4yes45	4	Yes	45	21,400	37,200	37,900	F	1.07
118		75	Calvine Rd	Sheldon Rd	33,500	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.88
109		76	Sheldon Rd	Wilton Rd	36,600	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.97
107		77	Wilton Rd	Bond Rd	37,600	4yes45	4	Yes	45	21,400	37,200	37,900	E	0.99
10		78	Bond Rd	Elk Grove Blvd	29,400	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.78
1		79	Elk Grove Blvd	Bradshaw Rd	25,200	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.66
2		80	Bradshaw Rd	Mosher Rd	63,300	8yes55H	8	Yes	55	64,000	72,000	80,000	C or Better	0.79
3		81	Mosher Rd	Waterman Rd	66,800	8yes55H	8	Yes	55	64,000	72,000	80,000	D	0.84
4		82	Waterman Rd	E. Stockton / Survey Rd	100,000	8yes55H	8	Yes	55	64,000	72,000	80,000	F	1.25
5	83	E. Stockton / Survey Rd	SR 99	110,700	8yes55H	8	Yes	55	64,000	72,000	80,000	F	1.38	
79	Harbour Point Dr	84	Elk Grove Blvd	Laguna Blvd	17,900	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.47
157	Hood Franklin Rd	85	I-5	Franklin Blvd	46,800	4exp55	4	Yes	55	57,600	64,800	72,000	C or Better	0.65
519	Kammerer Rd	86	Franklin Blvd	Willard Pkwy	48,200	4exp55	4	Yes	55	57,600	64,800	72,000	C or Better	0.67
520		87	Willard Pkwy	Bruceville Rd	54,500	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	0.50
521		88	Bruceville Rd	Big Horn Blvd	65,700	6exp55	6	Yes	55	86,400	97,200	108,000	C or Better	0.61
18		89	Big Horn Blvd	Lotz Pkwy	72,000	8yes55H	8	Yes	55	64,000	72,000	80,000	D	0.90
8		90	Lotz Pkwy	Promenade Pkwy	68,600	8yes55H	8	Yes	55	64,000	72,000	80,000	D	0.86
7		91	Promenade Pkwy	SR 99	92,300	8yes55H	8	Yes	55	64,000	72,000	80,000	F	1.15
71	Laguna Blvd	92	SR 99	Franklin Blvd	37,600	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.69
57		93	Franklin Blvd	Bruceville Rd	32,800	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.60
54		94	Bruceville Rd	Big Horn Blvd	28,000	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.52
90		95	Big Horn Blvd	Laguna Springs Dr	53,700	8yes55M	8	Yes	55	57,600	64,800	72,000	C or Better	0.75
151		96	Laguna Springs Dr	SR 99	66,100	7yes45	7	Yes	45	44,800	59,400	63,200	F	1.05
155	Laguna Springs Dr	97	Laguna Blvd	Laguna Palms Wy	15,900	4yes35	4	Yes	35	14,700	33,300	37,900	D	0.42
89		98	Laguna Palms Wy	Elk Grove Blvd	13,200	2yes35	2	Yes	35	7,400	16,500	19,900	D	0.66
34		99	Elk Grove Blvd	Lotz Pkwy	26,700	4yes35	4	Yes	35	14,700	33,300	37,900	D	0.70
17	Lent Ranch Pkwy	100	Kammerer Rd	Promenade Pkwy	13,200	4yes35	4	Yes	35	14,700	33,300	37,900	C or Better	0.35

General Plan Update Roadway Segment LOS

























GIS Segment ID	Roadway	ID	From	To	Forecast	Classification	Lanes	Median/TWLT	Speed	Volume Threshold by LOS			LOS	V/C Ratio
										C or Better	D	E		
143	Lewis Stein Rd	101	Sheldon Rd	Big Horn Blvd	14,000	2yes35	2	Yes	35	7,400	16,500	19,900	D	0.70
31	Lotz Pkwy	102	Big Horn Blvd	Laguna Springs Dr	15,500	4yes35	4	Yes	35	14,700	33,300	37,900	D	0.41
33		103	Laguna Springs Dr	Whitelock Pkwy	17,000	4yes35	4	Yes	35	14,700	33,300	37,900	D	0.45
504		104	Whitelock Pkwy	Promenade Pkwy	44,200	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.81
505		105	Promenade Pkwy	Bilby Rd	28,900	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.76
506		106	Bilby Rd	Kammerer Rd	22,200	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.59
507		107	Kammerer Rd	Eschinger Rd	39,000	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.72
13		Mosher	108	Grant Line Rd	Waterman Rd	7,600	2yes55	2	Yes	55	13,200	19,600	19,900	C or Better
522	Pleasant Grove School Rd	109	Bader Rd	Grant Line Rd	4,700	2no35	2	No	35	7,000	15,700	18,900	C or Better	0.25
136	Power Inn Rd	110	Calvine Rd	Sheldon Rd	19,500	4yes35	4	Yes	35	14,700	33,300	37,900	D	0.51
512	Promenade Pkwy	111	Lotz Pkwy	Bilby Rd	17,800	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.47
16		112	Bilby Rd	Kammerer Rd	27,800	6yes45	6	Yes	45	31,900	54,000	54,300	C or Better	0.51
513		113	Kammerer Rd	Eschinger Rd	16,000	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.42
142	Sheldon Rd	114	Bruceville Rd	Lewis Stein Rd	37,700	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.69
141		115	Lewis Stein Rd	SR 99	47,400	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.87
139		116	SR 99	E. Stockton Blvd	58,900	6yes45	6	Yes	45	31,900	54,000	54,300	F	1.08
137		117	E. Stockton Blvd	Power Inn Rd	51,900	6yes45	6	Yes	45	31,900	54,000	54,300	D	0.96
134		118	Power Inn Rd	Elk Grove Florin Rd	43,900	4yes45	4	Yes	45	21,400	37,200	37,900	F	1.16
111		119	Elk Grove Florin Rd	Waterman Rd	21,700	2no45	2	No	45	9,800	17,700	18,900	F	1.15
113		120	Waterman Rd	Bradshaw Rd	19,400	2no45	2	No	45	9,800	17,700	18,900	F	1.03
116		121	Bradshaw Rd	Bader Rd	14,500	2no45	2	No	45	9,800	17,700	18,900	D	0.77
117		122	Bader Rd	Dillard Oaks Ct	14,500	2no45	2	No	45	9,800	17,700	18,900	D	0.77
110		123	Excelsior Rd	Grant Line Rd	22,900	2no45	2	No	45	9,800	17,700	18,900	F	1.21
127		Waterman Rd	124	Vintage Park Dr	Calvine Rd	30,400	4yes45	4	Yes	45	21,400	37,200	37,900	D
126	125		Calvine Rd	Sheldon Rd	17,500	2no55	2	No	55	12,500	18,600	18,900	D	0.93
112	126		Sheldon Rd	Bond Rd	20,900	2no55	2	No	55	12,500	18,600	18,900	F	1.11
96	127		Bond Rd	Elk Grove Blvd	23,300	2no55	2	No	55	12,500	18,600	18,900	F	1.23
12	128		Elk Grove Blvd	Grant Line Rd	25,600	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.68
100	Whitelock Pkwy	129	Franklin Blvd	Bruceville Rd	8,800	4yes40	4	Yes	40	18,000	35,300	37,900	C or Better	0.23
27		130	Bruceville Rd	Big Horn Blvd	8,900	4yes40	4	Yes	40	18,000	35,300	37,900	C or Better	0.23
158		131	Big Horn Blvd	Lotz Pkwy	15,400	4yes40	4	Yes	40	18,000	35,300	37,900	C or Better	0.41
500		132	Lotz Pkwy	SR 99	50,400	4yes40	4	Yes	40	18,000	35,300	37,900	F	1.33
24	Willard Pkwy	133	Whitelock Pkwy	Bilby	31,600	4yes45	4	Yes	45	21,400	37,200	37,900	D	0.83
25		134	Bilby Rd	Kammerer Rd	21,100	4yes45	4	Yes	45	21,400	37,200	37,900	C or Better	0.56
108	Wilton Rd	135	Grant Line Rd	Leisure Oak Ln	14,800	2no55	2	No	55	12,500	18,600	18,900	D	0.78
532	SR-99	136	Calvine Rd	Sheldon Rd	156,400	4Fwy	4			61,600	74,400	80,000	F	1.96
523		137	Sheldon Rd	Bond Rd	154,000	4Fwy	4			61,600	74,400	80,000	F	1.93
524		138	Bond Rd	Elk Grove Blvd	140,100	4Fwy	4			61,600	74,400	80,000	F	1.75
525		139	Elk Grove Blvd	Whitelock Pkwy	126,300	4Fwy	4			61,600	74,400	80,000	F	1.58
526		140	Whitelock Pkwy	Grant Line Rd	107,200	4Fwy	4			61,600	74,400	80,000	F	1.34
527		141	Grant Line Rd	Eschinger Rd	131,900	4Fwy	4			61,600	74,400	80,000	F	1.65
528	I-5	142	Cosumnes River Blvd	Laguna Blvd	155,200	6Fwy	6			92,400	111,600	120,000	F	1.29
529		143	Laguna Blvd	Elk Grove Blvd	130,700	4Fwy	4			61,600	74,400	80,000	F	1.63
530		144	Elk Grove Blvd	Hood Franklin Rd	113,200	4Fwy	4			61,600	74,400	80,000	F	1.42
531		145	Hood Franklin Rd	Twin Cities Rd	81,600	4Fwy	4			61,600	74,400	80,000	F	1.02

Intersection LOS

- Existing Conditions
- General Plan Update Conditions























HCM 2010 Signalized Intersection Summary
 1: Calvin Rd & Elk Grove Florin Rd

Existing Conditions
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	374	683	140	276	944	245	277	1078	333	181	506	375
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	416	759	78	307	1049	205	308	1198	194	201	562	235
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	432	1281	565	340	1187	521	341	1243	554	235	1133	500
Arrive On Green	0.13	0.37	0.37	0.10	0.34	0.34	0.10	0.35	0.35	0.07	0.32	0.32
Sat Flow, veh/h	3408	3505	1546	3408	3505	1539	3408	3505	1563	3408	3505	1545
Grp Volume(v), veh/h	416	759	78	307	1049	205	308	1198	194	201	562	235
Grp Sat Flow(s),veh/h/ln	1704	1752	1546	1704	1752	1539	1704	1752	1563	1704	1752	1545
Q Serve(g_s), s	23.9	34.6	6.7	17.6	55.7	20.0	17.6	66.1	18.0	11.5	25.5	23.9
Cycle Q Clear(g_c), s	23.9	34.6	6.7	17.6	55.7	20.0	17.6	66.1	18.0	11.5	25.5	23.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	432	1281	565	340	1187	521	341	1243	554	235	1133	500
V/C Ratio(X)	0.96	0.59	0.14	0.90	0.88	0.39	0.90	0.96	0.35	0.85	0.50	0.47
Avail Cap(c_a), veh/h	432	1281	565	432	1244	546	432	1244	555	432	1244	548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	85.7	50.7	41.8	87.8	61.6	49.8	87.8	62.4	46.9	90.8	53.8	53.2
Incr Delay (d2), s/veh	33.5	0.9	0.2	16.6	7.9	0.7	16.7	17.8	0.8	3.4	0.7	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	16.9	2.9	9.1	28.3	8.6	9.1	35.2	7.9	5.6	12.4	10.4
LnGrp Delay(d),s/veh	119.2	51.6	42.0	104.4	69.4	50.5	104.5	80.2	47.7	94.3	54.5	54.7
LnGrp LOS	F	D	D	F	E	D	F	F	D	F	D	D
Approach Vol, veh/h		1253			1561			1700			998	
Approach Delay, s/veh		73.4			73.8			80.9			62.5	
Approach LOS		E			E			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.3	69.2	30.5	72.3	19.1	75.3	25.2	77.6				
Change Period (Y+Rc), s	5.5	* 5.4	5.5	5.5	5.5	* 5.4	5.5	5.5				
Max Green Setting (Gmax), s	25.0	* 70	25.0	70.0	25.0	* 70	25.0	70.0				
Max Q Clear Time (g_c+I1), s	19.6	27.5	25.9	57.7	13.5	68.1	19.6	36.6				
Green Ext Time (p_c), s	0.1	33.8	0.0	9.1	0.1	1.8	0.1	23.8				
Intersection Summary												
HCM 2010 Ctrl Delay			73.9									
HCM 2010 LOS			E									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

























HCM 2010 Signalized Intersection Summary
2: Calvin Rd & Waterman Rd

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	212	1045	101	180	934	38	100	154	224	76	216	239
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	249	1229	66	212	1099	43	118	181	232	89	254	256
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	269	1346	583	233	1247	49	140	210	270	109	222	224
Arrive On Green	0.15	0.38	0.38	0.13	0.36	0.36	0.08	0.29	0.29	0.06	0.27	0.27
Sat Flow, veh/h	1757	3505	1519	1757	3433	134	1757	736	943	1757	829	836
Grp Volume(v), veh/h	249	1229	66	212	561	581	118	0	413	89	0	510
Grp Sat Flow(s),veh/h/ln	1757	1752	1519	1757	1752	1815	1757	0	1678	1757	0	1665
Q Serve(g_s), s	20.9	49.7	4.2	17.8	44.8	44.8	9.9	0.0	34.8	7.5	0.0	40.0
Cycle Q Clear(g_c), s	20.9	49.7	4.2	17.8	44.8	44.8	9.9	0.0	34.8	7.5	0.0	40.0
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.56	1.00		0.50
Lane Grp Cap(c), veh/h	269	1346	583	233	637	660	140	0	480	109	0	446
V/C Ratio(X)	0.92	0.91	0.11	0.91	0.88	0.88	0.84	0.00	0.86	0.82	0.00	1.14
Avail Cap(c_a), veh/h	294	1642	711	294	821	850	306	0	480	294	0	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.4	43.7	29.6	63.9	44.5	44.5	67.8	0.0	50.5	69.2	0.0	54.7
Incr Delay (d2), s/veh	30.8	6.5	0.0	23.9	7.6	7.4	5.1	0.0	14.0	5.5	0.0	88.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.5	25.3	1.8	10.2	23.0	23.8	5.0	0.0	18.0	3.8	0.0	29.3
LnGrp Delay(d),s/veh	93.1	50.1	29.7	87.8	52.2	52.0	73.0	0.0	64.5	74.8	0.0	143.1
LnGrp LOS	F	D	C	F	D	D	E		E	E		F
Approach Vol, veh/h		1544			1354			531				599
Approach Delay, s/veh		56.2			57.6			66.4				133.0
Approach LOS		E			E			E				F
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.4	59.4	17.4	45.2	24.3	62.5	14.7	47.9				
Change Period (Y+Rc), s	4.5	* 5.1	5.5	* 5.2	4.5	5.1	* 5.4	* 5.2				
Max Green Setting (Gmax), s	25.0	* 70	26.0	* 40	25.0	70.0	* 25	* 40				
Max Q Clear Time (g_c+I1), s	22.9	46.8	11.9	42.0	19.8	51.7	9.5	36.8				
Green Ext Time (p_c), s	0.0	6.0	0.1	0.0	0.0	5.7	0.0	0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			69.4									
HCM 2010 LOS			E									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
3: Bradshaw Rd & Calvin Rd

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	431	410	33	95	530	220	33	519	45	152	280	245
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	479	456	11	106	589	100	37	577	46	169	311	58
Adj No. of Lanes	2	2	1	2	2	1	2	2	0	2	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	573	1173	524	177	766	343	75	718	57	255	951	420
Arrive On Green	0.17	0.33	0.33	0.05	0.22	0.22	0.02	0.22	0.22	0.07	0.27	0.27
Sat Flow, veh/h	3408	3505	1567	3408	3505	1568	3408	3285	261	3408	3505	1546
Grp Volume(v), veh/h	479	456	11	106	589	100	37	307	316	169	311	58
Grp Sat Flow(s),veh/h/ln	1704	1752	1567	1704	1752	1568	1704	1752	1794	1704	1752	1546
Q Serve(g_s), s	9.7	7.1	0.3	2.2	11.2	3.8	0.8	11.8	11.9	3.4	5.1	2.0
Cycle Q Clear(g_c), s	9.7	7.1	0.3	2.2	11.2	3.8	0.8	11.8	11.9	3.4	5.1	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	573	1173	524	177	766	343	75	383	392	255	951	420
V/C Ratio(X)	0.84	0.39	0.02	0.60	0.77	0.29	0.50	0.80	0.81	0.66	0.33	0.14
Avail Cap(c_a), veh/h	1196	3443	1539	1196	3443	1540	1196	1722	1762	1196	3443	1519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	18.1	15.9	33.1	26.1	23.2	34.5	26.4	26.4	32.1	20.8	19.6
Incr Delay (d2), s/veh	1.3	0.1	0.0	1.2	0.6	0.2	1.9	1.5	1.5	1.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	3.4	0.1	1.0	5.5	1.6	0.4	5.9	6.0	1.7	2.4	0.9
LnGrp Delay(d),s/veh	29.9	18.2	15.9	34.3	26.8	23.4	36.4	27.9	27.9	33.2	20.8	19.7
LnGrp LOS	C	B	B	C	C	C	D	C	C	C	C	B
Approach Vol, veh/h		946			795			660			538	
Approach Delay, s/veh		24.1			27.3			28.4			24.6	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.5	21.1	7.1	25.6	9.2	29.4	10.8	21.9				
Change Period (Y+Rc), s	5.5	* 5.5	5.5	6.3	5.5	* 5.5	5.5	* 6.3				
Max Green Setting (Gmax), s	25.0	* 70	25.0	70.0	25.0	* 70	25.0	* 70				
Max Q Clear Time (g_c+I1), s	11.7	13.2	2.8	7.1	4.2	9.1	5.4	13.9				
Green Ext Time (p_c), s	0.3	2.2	0.0	1.5	0.1	2.2	0.1	1.5				
Intersection Summary												
HCM 2010 Ctrl Delay			26.0									
HCM 2010 LOS			C									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												













Intersection																
Intersection Delay, s/veh 17.9																
Intersection LOS C																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	147	228	43	0	15	152	25	0	43	271	14	0	4	72	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	155	240	45	0	16	160	26	0	45	285	15	0	4	76	42
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	22.1	12.7	17.8	11.4
HCM LOS	C	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	35%	8%	3%
Vol Thru, %	83%	55%	79%	62%
Vol Right, %	4%	10%	13%	34%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	328	418	192	116
LT Vol	43	147	15	4
Through Vol	271	228	152	72
RT Vol	14	43	25	40
Lane Flow Rate	345	440	202	122
Geometry Grp	1	1	1	1
Degree of Util (X)	0.593	0.709	0.353	0.222
Departure Headway (Hd)	6.183	5.931	6.293	6.537
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	587	612	572	549
Service Time	4.202	3.931	4.327	4.567
HCM Lane V/C Ratio	0.588	0.719	0.353	0.222
HCM Control Delay	17.8	22.1	12.7	11.4
HCM Lane LOS	C	C	B	B
HCM 95th-tile Q	3.9	5.8	1.6	0.8

























HCM 2010 Signalized Intersection Summary
5: Grant Line Rd & Calvin Rd

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑		↕	↑			↑	↕
Volume (veh/h)	224	0	23	0	0	0	33	799	0	0	595	168
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1861	1900	0	1863	0	1792	1810	0	0	1792	1863
Adj Flow Rate, veh/h	257	0	0	0	0	0	38	918	0	0	684	160
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	0	1	1
Peak Hour Factor	0.87	0.92	0.87	0.92	0.92	0.92	0.87	0.87	0.92	0.92	0.87	0.87
Percent Heavy Veh, %	2	2	2	0	2	0	6	5	0	0	6	2
Cap, veh/h	327	0	0	0	4	0	44	1023	0	0	815	720
Arrive On Green	0.18	0.00	0.00	0.00	0.00	0.00	0.03	0.57	0.00	0.00	0.45	0.45
Sat Flow, veh/h	1772	0	0	0	1863	0	1707	1810	0	0	1792	1583
Grp Volume(v), veh/h	257	0	0	0	0	0	38	918	0	0	684	160
Grp Sat Flow(s),veh/h/ln	1772	0	0	0	1863	0	1707	1810	0	0	1792	1583
Q Serve(g_s), s	5.9	0.0	0.0	0.0	0.0	0.0	0.9	19.0	0.0	0.0	14.3	2.6
Cycle Q Clear(g_c), s	5.9	0.0	0.0	0.0	0.0	0.0	0.9	19.0	0.0	0.0	14.3	2.6
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	327	0	0	0	4	0	44	1023	0	0	815	720
V/C Ratio(X)	0.78	0.00	0.00	0.00	0.00	0.00	0.87	0.90	0.00	0.00	0.84	0.22
Avail Cap(c_a), veh/h	1673	0	0	0	879	0	1007	2989	0	0	2961	2615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	0.0	0.0	0.0	0.0	0.0	20.6	8.1	0.0	0.0	10.2	7.0
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.0	0.0	0.0	17.3	1.2	0.0	0.0	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0	0.0	0.0	0.0	0.6	9.5	0.0	0.0	7.0	1.1
LnGrp Delay(d),s/veh	18.0	0.0	0.0	0.0	0.0	0.0	37.9	9.3	0.0	0.0	11.1	7.1
LnGrp LOS	B						D	A			B	A
Approach Vol, veh/h		257			0			956			844	
Approach Delay, s/veh		18.0			0.0			10.5			10.3	
Approach LOS		B						B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	4.7	24.4		0.0		29.0		13.3				
Change Period (Y+Rc), s	* 3.6	5.1		3.5		5.1		5.5				
Max Green Setting (Gmax), s	* 25	70.0		20.0		70.0		40.0				
Max Q Clear Time (g_c+I1), s	2.9	16.3		0.0		21.0		7.9				
Green Ext Time (p_c), s	0.0	3.0		0.0		3.0		0.4				
Intersection Summary												
HCM 2010 Ctrl Delay				11.4								
HCM 2010 LOS				B								
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
6: Bruceville Rd & Center Parkway/Sheldon Rd

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	19	285	202	364	274	139	202	906	369	123	296	7
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	22	331	7	423	319	28	235	1053	273	143	344	2
Adj No. of Lanes	2	2	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	76	431	190	481	1218	371	301	1668	737	204	1569	701
Arrive On Green	0.02	0.12	0.12	0.14	0.24	0.24	0.06	0.32	0.32	0.06	0.45	0.45
Sat Flow, veh/h	3408	3505	1546	3408	5036	1533	3408	3505	1548	3408	3505	1567
Grp Volume(v), veh/h	22	331	7	423	319	28	235	1053	273	143	344	2
Grp Sat Flow(s),veh/h/ln	1704	1752	1546	1704	1679	1533	1704	1752	1548	1704	1752	1567
Q Serve(g_s), s	0.7	10.1	0.4	13.4	5.6	1.6	7.5	28.2	15.0	4.5	6.6	0.1
Cycle Q Clear(g_c), s	0.7	10.1	0.4	13.4	5.6	1.6	7.5	28.2	15.0	4.5	6.6	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	76	431	190	481	1218	371	301	1668	737	204	1569	701
V/C Ratio(X)	0.29	0.77	0.04	0.88	0.26	0.08	0.78	0.63	0.37	0.70	0.22	0.00
Avail Cap(c_a), veh/h	511	621	274	511	1218	371	511	1668	737	511	1569	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.58	0.58	0.58	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	46.7	42.5	46.3	33.8	32.2	50.7	29.2	24.7	50.7	18.6	16.8
Incr Delay (d2), s/veh	0.8	1.9	0.0	14.7	0.0	0.0	1.0	1.1	0.8	1.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.0	0.2	7.3	2.6	0.7	3.6	13.9	6.6	2.2	3.3	0.0
LnGrp Delay(d),s/veh	53.7	48.6	42.5	61.1	33.8	32.2	51.7	30.3	25.6	52.4	18.9	16.8
LnGrp LOS	D	D	D	E	C	C	D	C	C	D	B	B
Approach Vol, veh/h		360			770			1561			489	
Approach Delay, s/veh		48.8			48.7			32.7			28.7	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.2	54.7	7.9	32.1	12.1	57.9	21.0	19.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	16.5	35.5	16.5	19.5	16.5	35.5	16.5	19.5				
Max Q Clear Time (g_c+I1), s	9.5	8.6	2.7	7.6	6.5	30.2	15.4	12.1				
Green Ext Time (p_c), s	0.2	7.7	0.0	2.3	0.2	3.2	0.1	0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			37.8									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

7: Lewis Stien Rd/Jocelyn Way & Sheldon Rd Performance by movement

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		2.2	0.3	2.9	0.0	0.0	0.0	0.0	3.2	3.0	0.4	0.4
Total Delay (hr)	0.0	0.0	1.5	0.0	0.0	0.7	0.7	0.0	0.1	0.4	0.1	0.8
Total Del/Veh (s)		42.3	25.5	6.3	33.7	48.4	11.3	4.7	38.6	34.4	35.9	24.0
Stop Delay (hr)	0.0	0.0	1.1	0.0	0.0	0.6	0.4	0.0	0.1	0.3	0.1	0.7
Stop Del/Veh (s)		39.7	18.6	4.1	31.7	43.1	7.3	1.4	36.8	31.1	31.9	20.6
Total Stops	0	2	123	9	1	46	72	4	9	29	7	103
Stop/Veh		1.00	0.59	0.56	1.00	0.88	0.33	0.29	0.82	0.72	0.70	0.86
Travel Dist (mi)	0.1	0.3	39.5	3.0	0.2	13.5	54.8	3.8	1.4	5.0	1.2	15.6
Travel Time (hr)	0.0	0.0	2.5	0.1	0.0	1.1	2.1	0.1	0.2	0.6	0.1	1.4
Avg Speed (mph)	9	9	16	24	13	12	26	28	8	9	9	11
Fuel Used (gal)	0.0	0.0	0.6	0.1	0.0	0.2	1.1	0.1	0.0	0.1	0.0	0.3
Fuel Eff. (mpg)	73.5	67.0	61.3	56.6	70.7	55.9	51.5	60.2	63.2	50.9	45.2	60.1
HC Emissions (g)	0	0	18	2	0	7	30	3	0	4	1	7
CO Emissions (g)	2	7	644	87	2	221	1017	82	21	116	29	273
NOx Emissions (g)	0	0	55	7	0	21	101	9	1	10	3	20
Vehicles Entered	0	2	204	15	1	47	211	13	10	37	9	115
Vehicles Exited	0	2	198	16	1	47	209	13	11	38	10	114
Hourly Exit Rate	0	8	792	64	4	188	836	52	44	152	40	456
Input Volume	1	7	815	61	3	197	883	57	47	151	34	450
% of Volume	0	114	97	105	133	95	95	91	94	101	118	101
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	0	10	0	0	4	9	1	1	2	1	5

7: Lewis Stien Rd/Jocelyn Way & Sheldon Rd Performance by movement

Movement	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	3.8	0.6	3.7	0.6
Total Delay (hr)	0.5	0.1	0.0	5.0
Total Del/Veh (s)	44.3	46.8	5.8	24.0
Stop Delay (hr)	0.4	0.1	0.0	4.0
Stop Del/Veh (s)	40.9	42.3	5.0	19.3
Total Stops	33	8	3	449
Stop/Veh	0.85	0.80	0.75	0.60
Travel Dist (mi)	4.1	1.0	0.4	144.1
Travel Time (hr)	0.7	0.2	0.0	9.2
Avg Speed (mph)	7	6	19	16
Fuel Used (gal)	0.1	0.0	0.0	2.6
Fuel Eff. (mpg)	47.7	56.1	82.3	55.5
HC Emissions (g)	3	1	0	75
CO Emissions (g)	96	23	7	2627
NOx Emissions (g)	7	2	0	237
Vehicles Entered	37	9	4	714
Vehicles Exited	38	10	4	711
Hourly Exit Rate	152	40	16	2844
Input Volume	152	40	15	2913
% of Volume	100	100	107	98
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0
Density (ft/veh)				484
Occupancy (veh)	2	1	0	36

8: SR 99 SB Off/W Stockton Blvd & Sheldon Rd Performance by movement

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.8	0.7	0.1	0.5	0.0	0.0	0.0	0.4	0.1	0.8	3.8	0.6
Total Delay (hr)	0.0	0.1	2.8	0.1	1.5	0.6	0.1	0.6	0.0	0.2	0.6	0.2
Total Del/Veh (s)	44.0	50.6	27.4	8.1	44.8	9.0	4.0	40.5	40.8	15.7	46.7	46.1
Stop Delay (hr)	0.0	0.1	2.0	0.1	1.3	0.4	0.0	0.6	0.0	0.2	0.6	0.2
Stop Del/Veh (s)	41.3	46.1	19.3	4.9	39.8	5.8	2.2	37.9	39.1	14.9	43.0	42.3
Total Stops	1	4	212	23	98	64	22	43	3	42	41	12
Stop/Veh	1.00	1.00	0.57	0.58	0.84	0.28	0.41	0.80	0.75	0.84	0.85	0.80
Travel Dist (mi)	0.2	1.0	93.4	10.2	18.6	38.3	9.1	17.6	1.0	16.1	6.2	1.8
Travel Time (hr)	0.0	0.1	5.4	0.4	2.0	1.6	0.4	1.3	0.1	0.9	0.9	0.3
Avg Speed (mph)	9	11	17	24	9	24	24	13	12	18	7	7
Fuel Used (gal)	0.0	0.0	2.0	0.2	0.3	0.7	0.1	0.3	0.0	0.3	0.1	0.0
Fuel Eff. (mpg)	53.1	59.0	46.6	49.5	60.4	53.0	69.8	58.8	68.0	56.9	52.6	44.6
HC Emissions (g)	0	0	66	6	8	20	4	6	0	5	4	2
CO Emissions (g)	5	21	2522	271	298	635	115	125	3	102	104	38
NOx Emissions (g)	0	1	213	20	25	68	12	17	0	14	9	4
Vehicles Entered	1	4	358	38	107	222	53	50	3	46	45	14
Vehicles Exited	1	4	349	38	105	218	52	50	3	46	47	14
Hourly Exit Rate	4	16	1396	152	420	872	208	200	12	184	188	56
Input Volume	3	20	1431	161	428	925	216	199	13	183	175	53
% of Volume	133	80	98	94	98	94	96	101	92	101	107	106
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	0	22	2	8	6	1	5	0	4	3	1

8: SR 99 SB Off/W Stockton Blvd & Sheldon Rd Performance by movement

Movement	SBR	All
Denied Delay (hr)	0.0	0.1
Denied Del/Veh (s)	0.9	0.3
Total Delay (hr)	0.0	6.8
Total Del/Veh (s)	29.8	24.7
Stop Delay (hr)	0.0	5.4
Stop Del/Veh (s)	27.8	19.7
Total Stops	3	568
Stop/Veh	1.00	0.57
Travel Dist (mi)	0.4	213.9
Travel Time (hr)	0.0	13.4
Avg Speed (mph)	10	16
Fuel Used (gal)	0.0	4.2
Fuel Eff. (mpg)	69.0	51.5
HC Emissions (g)	0	120
CO Emissions (g)	4	4245
NOx Emissions (g)	0	385
Vehicles Entered	3	944
Vehicles Exited	3	930
Hourly Exit Rate	12	3720
Input Volume	14	3821
% of Volume	86	97
Denied Entry Before	0	0
Denied Entry After	0	0
Density (ft/veh)		426
Occupancy (veh)	0	53

9: SR 99 NB Off & Sheldon Rd Performance by movement

Movement	EBT	EBR	WBT	WBR	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.4	0.0
Total Delay (hr)	0.7	0.1	0.6	0.3	0.4	0.2	2.2
Total Del/Veh (s)	6.8	2.6	5.7	7.7	41.8	16.8	7.7
Stop Delay (hr)	0.2	0.0	0.2	0.2	0.3	0.2	1.1
Stop Del/Veh (s)	2.3	0.1	1.8	3.7	38.7	15.0	3.8
Total Stops	59	0	50	36	25	42	212
Stop/Veh	0.16	0.00	0.14	0.25	0.81	0.82	0.20
Travel Dist (mi)	62.3	16.8	55.5	23.1	8.1	13.6	179.4
Travel Time (hr)	2.4	0.7	2.1	1.1	0.6	0.7	7.5
Avg Speed (mph)	26	24	27	21	13	20	24
Fuel Used (gal)	1.5	0.3	1.3	0.4	0.1	0.3	3.8
Fuel Eff. (mpg)	42.7	62.6	42.8	61.9	55.4	52.7	47.2
HC Emissions (g)	48	10	40	13	4	7	122
CO Emissions (g)	1861	428	1616	504	104	177	4690
NOx Emissions (g)	165	32	145	43	11	20	415
Vehicles Entered	351	92	352	142	28	48	1013
Vehicles Exited	347	93	352	140	30	49	1011
Hourly Exit Rate	1388	372	1408	560	120	196	4044
Input Volume	1411	378	1464	610	105	189	4157
% of Volume	98	98	96	92	114	104	97
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							340
Occupancy (veh)	9	3	8	4	2	3	30

10: E Stockton Blvd & Sheldon Rd Performance by movement

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	3.6	0.8	3.6	3.6
Total Delay (hr)	0.0	0.8	1.7	0.0	0.0	0.3	3.6	0.0	0.5	0.3	0.1	0.0
Total Del/Veh (s)	22.6	44.7	18.1	4.6		43.5	29.6	11.6	46.4	33.6	10.2	56.3
Stop Delay (hr)	0.0	0.7	1.1	0.0	0.0	0.3	2.3	0.0	0.4	0.2	0.1	0.0
Stop Del/Veh (s)	21.0	39.9	12.3	3.0		35.6	18.7	3.8	42.9	27.9	8.7	54.0
Total Stops	1	53	152	8	0	23	258	4	31	19	21	2
Stop/Veh	1.00	0.87	0.46	0.47		0.88	0.59	0.50	0.86	0.68	0.72	1.00
Travel Dist (mi)	0.1	8.8	49.3	2.4	0.1	6.5	113.7	2.0	3.8	3.0	3.2	0.2
Travel Time (hr)	0.0	1.0	3.0	0.1	0.0	0.5	6.7	0.1	0.6	0.3	0.2	0.0
Avg Speed (mph)	10	8	17	23	11	13	17	22	6	9	16	5
Fuel Used (gal)	0.0	0.2	0.9	0.0	0.0	0.1	2.3	0.0	0.1	0.1	0.0	0.0
Fuel Eff. (mpg)	89.1	58.0	52.8	57.5	55.1	47.4	49.1	49.4	50.9	45.8	67.2	58.2
HC Emissions (g)	0	5	27	2	0	3	75	2	2	2	2	0
CO Emissions (g)	1	172	926	58	2	135	2854	70	117	66	82	3
NOx Emissions (g)	0	16	89	5	0	11	249	7	6	5	6	0
Vehicles Entered	1	56	323	16	0	24	416	7	34	27	28	2
Vehicles Exited	0	54	314	16	0	23	405	7	35	28	28	2
Hourly Exit Rate	0	216	1256	64	0	92	1620	28	140	112	112	8
Input Volume	2	223	1308	66	2	100	1724	28	138	108	113	8
% of Volume	0	97	96	97	0	92	94	100	101	104	99	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	4	12	0	0	2	27	0	2	1	1	0

10: E Stockton Blvd & Sheldon Rd Performance by movement

Movement	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1
Denied Del/Veh (s)	0.2	0.3	0.3
Total Delay (hr)	0.1	0.4	7.7
Total Del/Veh (s)	42.0	23.7	26.7
Stop Delay (hr)	0.1	0.3	5.6
Stop Del/Veh (s)	38.5	22.4	19.3
Total Stops	9	47	628
Stop/Veh	0.75	0.84	0.60
Travel Dist (mi)	1.0	5.0	198.9
Travel Time (hr)	0.2	0.6	13.4
Avg Speed (mph)	6	9	15
Fuel Used (gal)	0.0	0.1	3.9
Fuel Eff. (mpg)	54.2	55.1	50.8
HC Emissions (g)	0	3	123
CO Emissions (g)	15	93	4593
NOx Emissions (g)	1	8	404
Vehicles Entered	10	53	997
Vehicles Exited	11	54	977
Hourly Exit Rate	44	216	3908
Input Volume	41	210	4071
% of Volume	107	103	96
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			296
Occupancy (veh)	1	2	53

11: Garity Dr/Power Inn Rd & Sheldon Rd Performance by movement

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.0	0.0	0.0			1.1	2.5	4.0	0.3	4.2	2.6
Total Delay (hr)	0.0	3.4	0.8	0.0	0.0	0.0	2.5	0.2	0.1	0.4	0.0	0.0
Total Del/Veh (s)		84.1	15.2	6.4			29.7	11.0	47.8	35.5	10.0	26.4
Stop Delay (hr)	0.0	3.0	0.5	0.0	0.0	0.0	1.8	0.1	0.1	0.3	0.0	0.0
Stop Del/Veh (s)		74.1	9.3	2.2			21.2	6.4	45.3	32.5	9.0	26.0
Total Stops	0	158	68	10	0	0	196	35	7	26	3	1
Stop/Veh		1.07	0.35	0.45			0.65	0.62	0.88	0.70	0.75	1.00
Travel Dist (mi)	0.1	36.4	53.1	6.0	0.1	0.1	60.2	11.2	0.8	3.5	0.5	0.1
Travel Time (hr)	0.0	4.5	2.2	0.2	0.0	0.0	4.1	0.6	0.1	0.5	0.0	0.0
Avg Speed (mph)	6	8	24	28	7	12	15	22	6	7	14	8
Fuel Used (gal)	0.0	0.7	1.2	0.1	0.0	0.0	1.0	0.2	0.0	0.1	0.0	0.0
Fuel Eff. (mpg)	57.8	52.5	46.1	53.2	89.0	98.2	63.1	68.2	54.1	40.4	35.6	69.1
HC Emissions (g)	0	18	31	4	0	0	26	6	0	2	1	0
CO Emissions (g)	1	626	1049	127	1	0	936	193	9	49	16	1
NOx Emissions (g)	0	59	111	13	0	0	80	18	1	6	2	0
Vehicles Entered	0	132	190	22	0	0	293	55	7	33	4	1
Vehicles Exited	0	120	189	22	0	0	286	54	8	35	4	1
Hourly Exit Rate	0	480	756	88	0	0	1144	216	32	140	16	4
Input Volume	2	538	795	97	2	1	1190	228	34	127	18	3
% of Volume	0	89	95	91	0	0	96	95	94	110	89	133
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	18	9	1	0	0	16	2	1	2	0	0

11: Garity Dr/Power Inn Rd & Sheldon Rd Performance by movement

Movement	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.3
Denied Del/Veh (s)	4.1	1.3	1.5	1.0
Total Delay (hr)	0.5	0.1	2.4	10.5
Total Del/Veh (s)	46.6	27.0	50.1	37.8
Stop Delay (hr)	0.5	0.1	2.1	8.5
Stop Del/Veh (s)	43.0	23.2	43.5	30.8
Total Stops	34	10	144	692
Stop/Veh	0.89	0.62	0.84	0.70
Travel Dist (mi)	4.9	2.1	21.6	200.5
Travel Time (hr)	0.7	0.2	3.2	16.4
Avg Speed (mph)	7	12	7	12
Fuel Used (gal)	0.1	0.0	0.4	3.7
Fuel Eff. (mpg)	52.7	60.6	57.9	54.3
HC Emissions (g)	3	2	10	102
CO Emissions (g)	93	49	314	3464
NOx Emissions (g)	7	5	25	327
Vehicles Entered	36	15	161	949
Vehicles Exited	36	16	153	924
Hourly Exit Rate	144	64	612	3696
Input Volume	143	53	628	3859
% of Volume	101	121	97	96
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	1	1
Density (ft/veh)				264
Occupancy (veh)	3	1	13	65

HCM 2010 Signalized Intersection Summary
 12: Sheldon Rd & Elk Grove Florin Rd

Existing Conditions
 Timing Plan: AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	421	369	170	80	275	90	165	1026	74	75	614	416
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	453	397	37	86	296	8	177	1103	29	81	660	236
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	3	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	537	863	381	161	477	210	252	1381	617	159	1846	575
Arrive On Green	0.16	0.25	0.25	0.05	0.14	0.14	0.07	0.39	0.39	0.05	0.37	0.37
Sat Flow, veh/h	3408	3505	1546	3408	3505	1544	3408	3505	1567	3408	5036	1568
Grp Volume(v), veh/h	453	397	37	86	296	8	177	1103	29	81	660	236
Grp Sat Flow(s),veh/h/ln	1704	1752	1546	1704	1752	1544	1704	1752	1567	1704	1679	1568
Q Serve(g_s), s	12.2	9.1	1.8	2.3	7.5	0.4	4.8	26.4	1.1	2.2	9.0	10.6
Cycle Q Clear(g_c), s	12.2	9.1	1.8	2.3	7.5	0.4	4.8	26.4	1.1	2.2	9.0	10.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	537	863	381	161	477	210	252	1381	617	159	1846	575
V/C Ratio(X)	0.84	0.46	0.10	0.53	0.62	0.04	0.70	0.80	0.05	0.51	0.36	0.41
Avail Cap(c_a), veh/h	900	1850	816	900	1850	815	900	1850	827	900	2659	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	30.3	27.6	44.1	38.6	35.5	42.8	25.4	17.7	44.1	21.9	22.4
Incr Delay (d2), s/veh	1.5	0.1	0.0	1.0	0.5	0.0	1.3	1.3	0.0	0.9	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	4.4	0.7	1.1	3.7	0.2	2.3	13.0	0.5	1.1	4.2	4.6
LnGrp Delay(d),s/veh	40.3	30.5	27.6	45.1	39.1	35.6	44.2	26.7	17.7	45.0	21.9	22.5
LnGrp LOS	D	C	C	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		887			390			1309			977	
Approach Delay, s/veh		35.4			40.4			28.9			24.0	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	41.0	21.2	19.2	10.7	43.6	10.8	29.6				
Change Period (Y+Rc), s	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3				
Max Green Setting (Gmax), s	25.0	50.0	25.0	50.0	25.0	50.0	25.0	50.0				
Max Q Clear Time (g_c+I1), s	6.8	12.6	14.2	9.5	4.2	28.4	4.3	11.1				
Green Ext Time (p_c), s	0.3	10.5	0.7	3.0	0.1	8.9	0.1	3.0				
Intersection Summary												
HCM 2010 Ctrl Delay			30.4									
HCM 2010 LOS			C									

HCM 2010 AWSC
 13: Waterman Rd & Sheldon Rd

Timing Plan: AM Peak Hour

Intersection																
Intersection Delay, s/veh64.7																
Intersection LOS F																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	82	330	105	0	19	201	9	0	106	320	38	0	43	298	92
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	88	355	113	0	20	216	10	0	114	344	41	0	46	320	99
Number of Lanes	0	0	1	1	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	63.4	30.1	74.6	74.1
HCM LOS	F	D	F	F

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	23%	20%	0%	8%	10%
Vol Thru, %	69%	80%	0%	88%	69%
Vol Right, %	8%	0%	100%	4%	21%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	464	412	105	229	433
LT Vol	106	82	0	19	43
Through Vol	320	330	0	201	298
RT Vol	38	0	105	9	92
Lane Flow Rate	499	443	113	246	466
Geometry Grp	2	7	7	5	2
Degree of Util (X)	1	1	0.261	0.666	1
Departure Headway (Hd)	8.751	9.128	8.328	9.738	8.647
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	419	399	434	374	424
Service Time	6.774	6.846	6.047	7.738	6.67
HCM Lane V/C Ratio	1.191	1.11	0.26	0.658	1.099
HCM Control Delay	74.6	76	14	30.1	74.1
HCM Lane LOS	F	F	B	D	F
HCM 95th-tile Q	12.4	12.1	1	4.6	12.5

HCM 2010 AWSC
 14: Bradshaw Rd & Sheldon Rd

Timing Plan: AM Peak Hour

Intersection																
Intersection Delay, s/veh77.4																
Intersection LOS F																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	176	177	50	0	185	161	14	0	6	380	28	0	16	330	53
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	180	181	51	0	189	164	14	0	6	388	29	0	16	337	54
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	78.4	74.9	78.2	78
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	44%	51%	4%
Vol Thru, %	92%	44%	45%	83%
Vol Right, %	7%	12%	4%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	414	403	360	399
LT Vol	6	176	185	16
Through Vol	380	177	161	330
RT Vol	28	50	14	53
Lane Flow Rate	422	411	367	407
Geometry Grp	1	1	1	1
Degree of Util (X)	1	1	0.984	1
Departure Headway (Hd)	9.569	9.62	9.644	9.535
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	384	382	375	383
Service Time	7.569	7.62	7.728	7.535
HCM Lane V/C Ratio	1.099	1.076	0.979	1.063
HCM Control Delay	78.2	78.4	74.9	78
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	11.9	11.8	11.3	11.9

HCM 2010 AWSC
 15: Bader Rd & Sheldon Rd

Timing Plan: AM Peak Hour




















Intersection																
Intersection Delay, s/veh14.9																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	30	154	34	0	25	213	25	0	42	198	50	0	15	167	87
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	32	164	36	0	27	227	27	0	45	211	53	0	16	178	93
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.8	15.2	15.8	14.7
HCM LOS	B	C	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	14%	10%	6%
Vol Thru, %	68%	71%	81%	62%
Vol Right, %	17%	16%	10%	32%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	290	218	263	269
LT Vol	42	30	25	15
Through Vol	198	154	213	167
RT Vol	50	34	25	87
Lane Flow Rate	309	232	280	286
Geometry Grp	1	1	1	1
Degree of Util (X)	0.526	0.41	0.488	0.483
Departure Headway (Hd)	6.133	6.37	6.283	6.081
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	586	564	574	592
Service Time	4.182	4.427	4.337	4.132
HCM Lane V/C Ratio	0.527	0.411	0.488	0.483
HCM Control Delay	15.8	13.8	15.2	14.7
HCM Lane LOS	C	B	C	B
HCM 95th-tile Q	3.1	2	2.7	2.6

























HCM 2010 Signalized Intersection Summary
 16: Grant Line Rd & Sheldon Rd

Existing Conditions
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	81	0	138	0	0	0	290	761	0	0	527	96
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	0	1845	0	1863	0	1863	1810	0	0	1810	1863
Adj Flow Rate, veh/h	88	0	49	0	0	0	315	827	0	0	573	0
Adj No. of Lanes	1	0	1	0	1	0	1	1	0	0	1	1
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
Percent Heavy Veh, %	1	0	3	0	2	0	2	5	0	0	5	2
Cap, veh/h	114	0	0	0	3	0	394	1419	0	0	890	778
Arrive On Green	0.06	0.00	0.00	0.00	0.00	0.00	0.22	0.78	0.00	0.00	0.49	0.00
Sat Flow, veh/h	1792	88		0	-83824	0	1774	1810	0	0	1810	1583
Grp Volume(v), veh/h	88	34.2		0	0	0	315	827	0	0	573	0
Grp Sat Flow(s),veh/h/ln	1792	C		0	1863	0	1774	1810	0	0	1810	1583
Q Serve(g_s), s	3.2			0.0	0.0	0.0	10.9	11.8	0.0	0.0	15.3	0.0
Cycle Q Clear(g_c), s	3.2			0.0	0.0	0.0	10.9	11.8	0.0	0.0	15.3	0.0
Prop In Lane	1.00			0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	114			0	3	0	394	1419	0	0	890	778
V/C Ratio(X)	0.77			0.00	0.00	0.00	0.80	0.58	0.00	0.00	0.64	0.00
Avail Cap(c_a), veh/h	687			0	515	0	1089	2500	0	0	2500	2187
HCM Platoon Ratio	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00			0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	30.0			0.0	0.0	0.0	24.0	2.8	0.0	0.0	12.3	0.0
Incr Delay (d2), s/veh	4.1			0.0	0.0	0.0	5.3	0.4	0.0	0.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7			0.0	0.0	0.0	5.9	5.9	0.0	0.0	7.8	0.0
LnGrp Delay(d),s/veh	34.2			0.0	0.0	0.0	29.2	3.2	0.0	0.0	13.1	0.0
LnGrp LOS	C						C	A			B	
Approach Vol, veh/h					0			1142			573	
Approach Delay, s/veh					0.0			10.4			13.1	
Approach LOS								B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4		6						
Phs Duration (G+Y+Rc), s	19.1	37.3	8.7	0.0		56.4						
Change Period (Y+Rc), s	4.6	5.3	4.6	4.5		5.3						
Max Green Setting (Gmax), s	40.0	90.0	25.0	18.0		90.0						
Max Q Clear Time (g_c+I1), s	12.9	17.3	5.2	0.0		13.8						
Green Ext Time (p_c), s	1.6	14.7	0.1	0.0		14.7						
Intersection Summary												
HCM 2010 Ctrl Delay			12.4									
HCM 2010 LOS			B									

























HCM 2010 Signalized Intersection Summary
 17: Franklin Blvd & Dwight Rd/Big Horn Blvd

Existing Conditions
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	45	15	175	315	60	475	90	925	275	175	925	95
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	49	16	11	342	65	195	98	1005	173	190	1005	57
Adj No. of Lanes	2	2	1	2	1	1	1	3	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	118	408	174	410	373	307	123	2576	786	254	1808	782
Arrive On Green	0.03	0.12	0.12	0.12	0.20	0.20	0.07	0.51	0.51	0.07	0.52	0.52
Sat Flow, veh/h	3408	3505	1495	3408	1845	1518	1757	5036	1537	3408	3505	1516
Grp Volume(v), veh/h	49	16	11	342	65	195	98	1005	173	190	1005	57
Grp Sat Flow(s),veh/h/ln	1704	1752	1495	1704	1845	1518	1757	1679	1537	1704	1752	1516
Q Serve(g_s), s	1.6	0.5	0.7	11.2	3.3	13.4	6.3	13.9	7.1	6.2	22.2	2.2
Cycle Q Clear(g_c), s	1.6	0.5	0.7	11.2	3.3	13.4	6.3	13.9	7.1	6.2	22.2	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	118	408	174	410	373	307	123	2576	786	254	1808	782
V/C Ratio(X)	0.42	0.04	0.06	0.83	0.17	0.64	0.80	0.39	0.22	0.75	0.56	0.07
Avail Cap(c_a), veh/h	748	1230	525	748	648	533	385	3094	944	748	2153	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.9	44.7	44.8	49.0	37.6	41.6	52.2	17.0	15.3	51.7	18.7	13.9
Incr Delay (d2), s/veh	0.9	0.0	0.1	1.7	0.1	0.8	4.4	0.0	0.1	1.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.2	0.3	5.4	1.7	5.7	3.2	6.4	3.0	3.0	10.6	0.9
LnGrp Delay(d),s/veh	54.7	44.7	44.9	50.7	37.7	42.4	56.6	17.0	15.4	53.4	18.8	13.9
LnGrp LOS	D	D	D	D	D	D	E	B	B	D	B	B
Approach Vol, veh/h		76			602			1276			1252	
Approach Delay, s/veh		51.2			46.6			19.8			23.8	
Approach LOS		D			D			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.1	63.8	18.3	18.8	12.6	64.3	8.5	28.5				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	8.2	15.9	13.2	2.7	8.3	24.2	3.6	15.4				
Green Ext Time (p_c), s	0.3	39.1	0.5	0.8	0.1	34.6	0.1	0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			27.2									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 18: Bruceville Rd & Big Horn Blvd

Existing Conditions
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	415	400	200	100	400	275	400	950	170	225	400	40
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	451	435	33	109	435	34	435	1033	76	245	435	35
Adj No. of Lanes	2	2	1	1	2	1	2	2	1	2	2	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	524	730	316	136	462	198	496	1537	673	314	1264	101
Arrive On Green	0.15	0.21	0.21	0.08	0.13	0.13	0.15	0.44	0.44	0.06	0.26	0.26
Sat Flow, veh/h	3408	3505	1519	1757	3505	1501	3408	3505	1535	3408	3281	263
Grp Volume(v), veh/h	451	435	33	109	435	34	435	1033	76	245	232	238
Grp Sat Flow(s),veh/h/ln	1704	1752	1519	1757	1752	1501	1704	1752	1535	1704	1752	1791
Q Serve(g_s), s	14.2	12.3	1.9	6.7	13.5	2.2	13.8	25.8	3.2	7.8	11.8	11.9
Cycle Q Clear(g_c), s	14.2	12.3	1.9	6.7	13.5	2.2	13.8	25.8	3.2	7.8	11.8	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	524	730	316	136	462	198	496	1537	673	314	675	690
V/C Ratio(X)	0.86	0.60	0.10	0.80	0.94	0.17	0.88	0.67	0.11	0.78	0.34	0.35
Avail Cap(c_a), veh/h	694	730	316	278	462	198	539	1537	673	539	675	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	45.4	39.4	35.2	49.9	47.3	42.4	46.0	24.6	18.2	50.5	29.5	29.5
Incr Delay (d2), s/veh	6.8	0.9	0.1	4.1	27.4	0.2	13.5	2.4	0.3	1.3	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	6.1	0.8	3.4	8.3	0.9	7.4	13.0	1.4	3.7	5.9	6.1
LnGrp Delay(d),s/veh	52.2	40.3	35.3	54.0	74.8	42.6	59.5	26.9	18.6	51.8	30.6	30.6
LnGrp LOS	D	D	D	D	E	D	E	C	B	D	C	C
Approach Vol, veh/h		919			578			1544			715	
Approach Delay, s/veh		46.0			69.0			35.7			37.8	
Approach LOS		D			E			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.6	47.9	21.5	20.0	14.7	53.7	13.1	28.4				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	17.4	35.5	22.4	14.5	17.4	35.5	17.4	19.5				
Max Q Clear Time (g_c+I1), s	15.8	13.9	16.2	15.5	9.8	27.8	8.7	14.3				
Green Ext Time (p_c), s	0.2	18.2	0.7	0.0	0.4	7.0	0.1	3.8				
Intersection Summary												
HCM 2010 Ctrl Delay			43.7									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
19: Grant Line Rd & Wilton Rd

Existing Conditions
Timing Plan: AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	1	2	302	1	351	0	670	94	170	486	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1863	1881	1900	1900	1795	1900	1810	1827	1900
Adj Flow Rate, veh/h	1	1	0	328	1	59	0	728	99	185	528	1
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	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
Percent Heavy Veh, %	0	0	0	2	0	0	0	6	6	5	4	4
Cap, veh/h	2	69	0	359	6	366	2	718	98	211	1137	2
Arrive On Green	0.00	0.04	0.00	0.20	0.24	0.24	0.00	0.46	0.46	0.12	0.62	0.62
Sat Flow, veh/h	1810	1900	0	1774	26	1543	1810	1547	210	1723	1823	3
Grp Volume(v), veh/h	1	1	0	328	0	60	0	0	827	185	0	529
Grp Sat Flow(s),veh/h/ln	1810	1900	0	1774	0	1569	1810	0	1757	1723	0	1826
Q Serve(g_s), s	0.1	0.1	0.0	21.7	0.0	3.6	0.0	0.0	55.7	12.7	0.0	18.4
Cycle Q Clear(g_c), s	0.1	0.1	0.0	21.7	0.0	3.6	0.0	0.0	55.7	12.7	0.0	18.4
Prop In Lane	1.00		0.00	1.00		0.98	1.00		0.12	1.00		0.00
Lane Grp Cap(c), veh/h	2	69	0	359	0	372	2	0	815	211	0	1140
V/C Ratio(X)	0.40	0.01	0.00	0.91	0.00	0.16	0.00	0.00	1.01	0.88	0.00	0.46
Avail Cap(c_a), veh/h	234	245	0	451	0	379	234	0	815	223	0	1140
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.59	0.73	0.00	0.73
Uniform Delay (d), s/veh	59.9	55.7	0.0	46.9	0.0	36.3	0.0	0.0	32.2	51.8	0.0	11.9
Incr Delay (d2), s/veh	81.9	0.1	0.0	20.2	0.0	0.2	0.0	0.0	27.7	22.9	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	12.7	0.0	1.6	0.0	0.0	33.2	7.4	0.0	9.6
LnGrp Delay(d),s/veh	141.7	55.8	0.0	67.0	0.0	36.5	0.0	0.0	59.9	74.6	0.0	12.9
LnGrp LOS	F	E		E		D			F	E		B
Approach Vol, veh/h		2			388			827			714	
Approach Delay, s/veh		98.8			62.3			59.9			28.9	
Approach LOS		F			E			E			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	80.9	28.8	10.4	19.2	61.7	4.7	34.5				
Change Period (Y+Rc), s	4.5	6.0	4.5	* 6	4.5	6.0	4.5	6.0				
Max Green Setting (Gmax), s	15.5	39.0	30.5	* 16	15.5	39.0	15.5	29.0				
Max Q Clear Time (g_c+I1), s	0.0	20.4	23.7	2.1	14.7	57.7	2.1	5.6				
Green Ext Time (p_c), s	0.0	9.3	0.5	0.2	0.0	0.0	0.0	0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			49.0									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												
























HCM 2010 Signalized Intersection Summary
 20: Harbour Point Dr & Laguna Blvd

Existing Conditions
 Timing Plan: AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	121	642	150	117	1425	140	663	68	208	24	16	150
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	132	698	58	127	1549	106	721	74	66	26	17	2
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	188	2322	708	183	2314	705	784	1042	454	43	169	136
Arrive On Green	0.06	0.46	0.46	0.05	0.46	0.46	0.23	0.30	0.30	0.02	0.09	0.09
Sat Flow, veh/h	3408	5036	1535	3408	5036	1535	3408	3505	1528	1757	1845	1481
Grp Volume(v), veh/h	132	698	58	127	1549	106	721	74	66	26	17	2
Grp Sat Flow(s),veh/h/ln	1704	1679	1535	1704	1679	1535	1704	1752	1528	1757	1845	1481
Q Serve(g_s), s	4.5	10.2	2.5	4.3	28.3	4.7	24.4	1.8	3.7	1.7	1.0	0.1
Cycle Q Clear(g_c), s	4.5	10.2	2.5	4.3	28.3	4.7	24.4	1.8	3.7	1.7	1.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	2322	708	183	2314	705	784	1042	454	43	169	136
V/C Ratio(X)	0.70	0.30	0.08	0.69	0.67	0.15	0.92	0.07	0.15	0.61	0.10	0.01
Avail Cap(c_a), veh/h	722	2987	911	722	2987	911	1069	1042	454	551	422	339
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	19.9	17.8	54.9	24.9	18.5	44.4	29.8	30.4	57.0	49.1	48.7
Incr Delay (d2), s/veh	1.8	0.1	0.0	1.8	0.4	0.1	8.5	0.0	0.1	5.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.7	1.1	2.1	13.1	2.0	12.4	0.9	1.6	0.9	0.5	0.1
LnGrp Delay(d),s/veh	56.5	20.0	17.9	56.6	25.3	18.6	52.9	29.8	30.5	62.1	49.2	48.8
LnGrp LOS	E	B	B	E	C	B	D	C	C	E	D	D
Approach Vol, veh/h		888			1782			861			45	
Approach Delay, s/veh		25.3			27.1			49.2			56.7	
Approach LOS		C			C			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	59.7	31.7	15.4	10.9	59.9	7.5	39.7				
Change Period (Y+Rc), s	4.6	5.5	4.6	4.6	4.6	5.5	4.6	4.6				
Max Green Setting (Gmax), s	25.0	70.0	37.0	27.0	25.0	70.0	37.0	27.0				
Max Q Clear Time (g_c+I1), s	6.5	30.3	26.4	3.0	6.3	12.2	3.7	5.7				
Green Ext Time (p_c), s	0.1	23.9	0.8	0.1	0.1	29.0	0.0	0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			32.3									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
 21: Babson Dr/Dwight Rd & Laguna Blvd

Existing Conditions
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	53	768	25	270	1582	73	104	6	371	28	3	17
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	58	835	10	293	1720	38	113	7	37	30	3	0
Adj No. of Lanes	2	3	1	2	3	1	1	1	0	1	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	140	2484	758	367	2820	861	142	42	221	50	409	183
Arrive On Green	0.04	0.49	0.49	0.11	0.56	0.56	0.08	0.17	0.17	0.03	0.12	0.00
Sat Flow, veh/h	3408	5036	1536	3408	5036	1538	1757	248	1309	1757	3505	1568
Grp Volume(v), veh/h	58	835	10	293	1720	38	113	0	44	30	3	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1536	1704	1679	1538	1757	0	1556	1757	1752	1568
Q Serve(g_s), s	1.6	9.6	0.3	8.0	21.8	1.1	6.0	0.0	2.3	1.6	0.1	0.0
Cycle Q Clear(g_c), s	1.6	9.6	0.3	8.0	21.8	1.1	6.0	0.0	2.3	1.6	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.84	1.00		1.00
Lane Grp Cap(c), veh/h	140	2484	758	367	2820	861	142	0	262	50	409	183
V/C Ratio(X)	0.41	0.34	0.01	0.80	0.61	0.04	0.80	0.00	0.17	0.59	0.01	0.00
Avail Cap(c_a), veh/h	891	3685	1124	891	3685	1125	459	0	651	643	1465	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.7	14.7	12.4	41.7	14.1	9.5	43.2	0.0	34.0	45.9	37.4	0.0
Incr Delay (d2), s/veh	0.7	0.1	0.0	1.5	0.2	0.0	3.8	0.0	0.1	4.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.4	0.1	3.9	10.1	0.5	3.1	0.0	1.0	0.8	0.0	0.0
LnGrp Delay(d),s/veh	45.5	14.8	12.4	43.2	14.3	9.5	47.1	0.0	34.1	50.0	37.4	0.0
LnGrp LOS	D	B	B	D	B	A	D		C	D	D	
Approach Vol, veh/h		903			2051			157				33
Approach Delay, s/veh		16.7			18.3			43.4				48.9
Approach LOS		B			B			D				D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	59.4	12.2	15.7	14.8	53.0	7.2	20.6				
Change Period (Y+Rc), s	4.5	5.8	4.5	4.5	4.5	5.8	4.5	4.5				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	35.0	40.0				
Max Q Clear Time (g_c+I1), s	3.6	23.8	8.0	2.1	10.0	11.6	3.6	4.3				
Green Ext Time (p_c), s	0.0	29.7	0.1	0.1	0.3	34.2	0.0	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			19.4									
HCM 2010 LOS			B									

























HCM 2010 Signalized Intersection Summary
 22: Franklin Blvd & Laguna Blvd

Existing Conditions
 Timing Plan: AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	391	678	65	127	933	125	340	725	186	162	795	449
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	425	737	23	138	1014	64	370	788	106	176	864	290
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	465	2207	673	180	1787	543	413	1473	447	219	836	363
Arrive On Green	0.14	0.44	0.44	0.05	0.35	0.35	0.12	0.29	0.29	0.06	0.24	0.24
Sat Flow, veh/h	3408	5036	1535	3408	5036	1531	3408	5036	1528	3408	3505	1523
Grp Volume(v), veh/h	425	737	23	138	1014	64	370	788	106	176	864	290
Grp Sat Flow(s),veh/h/ln	1704	1679	1535	1704	1679	1531	1704	1679	1528	1704	1752	1523
Q Serve(g_s), s	20.6	16.1	1.4	6.7	27.3	4.7	17.9	22.0	8.8	8.5	40.0	30.0
Cycle Q Clear(g_c), s	20.6	16.1	1.4	6.7	27.3	4.7	17.9	22.0	8.8	8.5	40.0	30.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	465	2207	673	180	1787	543	413	1473	447	219	836	363
V/C Ratio(X)	0.91	0.33	0.03	0.77	0.57	0.12	0.90	0.54	0.24	0.80	1.03	0.80
Avail Cap(c_a), veh/h	508	2207	673	508	2103	639	508	1473	447	508	836	363
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.4	31.0	26.8	78.4	43.7	36.4	72.6	49.8	45.1	77.4	63.8	60.0
Incr Delay (d2), s/veh	19.2	0.0	0.0	2.5	0.1	0.0	14.4	0.2	0.1	2.6	40.0	11.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	7.5	0.6	3.2	12.7	2.0	9.3	10.2	3.7	4.1	23.9	13.7
LnGrp Delay(d),s/veh	90.7	31.0	26.9	80.9	43.8	36.4	87.1	50.0	45.2	80.0	103.8	71.0
LnGrp LOS	F	C	C	F	D	D	F	D	D	E	F	E
Approach Vol, veh/h		1185			1216			1264			1330	
Approach Delay, s/veh		52.3			47.6			60.4			93.5	
Approach LOS		D			D			E			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.8	46.0	15.4	79.5	17.8	55.0	29.4	65.5				
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0	7.0	* 6	6.5	6.0				
Max Green Setting (Gmax), s	25.0	40.0	25.0	70.0	25.0	* 40	25.0	70.0				
Max Q Clear Time (g_c+I1), s	19.9	42.0	8.7	18.1	10.5	24.0	22.6	29.3				
Green Ext Time (p_c), s	0.4	0.0	0.2	39.5	0.2	13.9	0.2	30.2				
Intersection Summary												
HCM 2010 Ctrl Delay			64.2									
HCM 2010 LOS			E									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												
























HCM 2010 Signalized Intersection Summary
23: Bruceville Rd & Laguna Blvd

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	360	1016	162	240	608	124	245	1034	200	139	598	135
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	391	1104	114	261	661	46	266	1124	150	151	650	75
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	484	2050	624	340	1838	559	337	1400	424	214	1311	361
Arrive On Green	0.14	0.41	0.41	0.10	0.36	0.36	0.10	0.28	0.28	0.06	0.24	0.24
Sat Flow, veh/h	3408	5036	1534	3408	5036	1532	3408	5036	1526	3514	5534	1522
Grp Volume(v), veh/h	391	1104	114	261	661	46	266	1124	150	151	650	75
Grp Sat Flow(s),veh/h/ln	1704	1679	1534	1704	1679	1532	1704	1679	1526	1757	1845	1522
Q Serve(g_s), s	16.3	24.3	7.0	10.9	14.0	2.9	11.2	30.3	11.5	6.2	14.8	5.8
Cycle Q Clear(g_c), s	16.3	24.3	7.0	10.9	14.0	2.9	11.2	30.3	11.5	6.2	14.8	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	484	2050	624	340	1838	559	337	1400	424	214	1311	361
V/C Ratio(X)	0.81	0.54	0.18	0.77	0.36	0.08	0.79	0.80	0.35	0.70	0.50	0.21
Avail Cap(c_a), veh/h	933	2411	734	933	2411	733	583	1400	424	601	1514	417
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.8	32.9	27.8	64.1	33.9	30.4	64.4	49.0	42.2	67.3	48.2	44.8
Incr Delay (d2), s/veh	1.2	0.1	0.1	1.4	0.0	0.0	1.6	3.2	0.2	1.6	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	11.3	2.9	5.2	6.5	1.2	5.3	14.5	4.9	3.0	7.6	2.4
LnGrp Delay(d),s/veh	62.0	33.0	27.8	65.5	34.0	30.4	66.0	52.3	42.4	68.9	48.3	44.9
LnGrp LOS	E	C	C	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		1609			968			1540			876	
Approach Delay, s/veh		39.7			42.3			53.7			51.6	
Approach LOS		D			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.3	58.9	20.4	40.6	20.1	65.0	14.4	46.7				
Change Period (Y+Rc), s	5.5	5.5	6.0	* 6	5.5	5.5	5.5	6.0				
Max Green Setting (Gmax), s	40.0	70.0	25.0	* 40	40.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	18.3	16.0	13.2	16.8	12.9	26.3	8.2	32.3				
Green Ext Time (p_c), s	2.5	37.3	1.3	17.7	1.7	32.1	0.8	7.0				
Intersection Summary												
HCM 2010 Ctrl Delay			46.6									
HCM 2010 LOS			D									
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
 24: Big Horn Blvd & Laguna Blvd

Existing Conditions
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	132	1219	50	204	1189	229	75	238	333	258	173	198
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	143	1325	50	222	1292	123	82	259	148	280	188	35
Adj No. of Lanes	2	4	0	2	4	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	199	2922	110	279	3084	746	133	663	287	335	871	379
Arrive On Green	0.06	0.46	0.46	0.08	0.49	0.49	0.04	0.19	0.19	0.10	0.25	0.25
Sat Flow, veh/h	3408	6318	238	3408	6346	1536	3408	3505	1516	3408	3505	1524
Grp Volume(v), veh/h	143	998	377	222	1292	123	82	259	148	280	188	35
Grp Sat Flow(s),veh/h/ln	1704	1586	1797	1704	1586	1536	1704	1752	1516	1704	1752	1524
Q Serve(g_s), s	4.9	17.1	17.2	7.7	15.8	5.4	2.8	7.8	10.5	9.7	5.1	2.1
Cycle Q Clear(g_c), s	4.9	17.1	17.2	7.7	15.8	5.4	2.8	7.8	10.5	9.7	5.1	2.1
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	2201	831	279	3084	746	133	663	287	335	871	379
V/C Ratio(X)	0.72	0.45	0.45	0.80	0.42	0.16	0.62	0.39	0.52	0.84	0.22	0.09
Avail Cap(c_a), veh/h	381	2201	831	381	3084	746	381	1066	461	381	1066	463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	21.9	21.9	54.1	19.9	17.2	56.8	42.6	43.7	53.2	35.8	34.7
Incr Delay (d2), s/veh	1.8	0.7	1.8	5.6	0.4	0.5	1.7	0.1	0.5	12.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	7.6	8.9	3.8	7.0	2.4	1.4	3.8	4.5	5.1	2.5	0.9
LnGrp Delay(d),s/veh	57.4	22.6	23.7	59.7	20.3	17.7	58.5	42.7	44.3	65.3	35.9	34.7
LnGrp LOS	E	C	C	E	C	B	E	D	D	E	D	C
Approach Vol, veh/h		1518			1637			489			503	
Approach Delay, s/veh		26.2			25.5			45.8			52.2	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	63.8	9.3	35.3	14.4	61.0	16.4	28.2				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	13.4	36.5	13.4	36.5	13.4	36.5	13.4	36.5				
Max Q Clear Time (g_c+I1), s	6.9	17.8	4.8	7.1	9.7	19.2	11.7	12.5				
Green Ext Time (p_c), s	0.1	18.0	0.1	4.8	0.1	16.7	0.1	4.6				
Intersection Summary												
HCM 2010 Ctrl Delay			31.4									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

25: Laguna Springs Dr/W Stockton Blvd & Laguna Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.0	0.3	0.5	0.0	0.0	0.0	3.5	0.5	0.9	3.6	0.2	0.2
Total Delay (hr)	1.1	3.2	0.9	1.9	1.4	0.0	0.3	0.1	0.2	0.3	0.3	0.1
Total Del/Veh (s)	55.7	32.9	43.9	50.8	20.6	3.6	49.5	45.4	11.0	41.9	39.9	10.5
Stop Delay (hr)	0.9	2.3	0.7	1.6	1.0	0.0	0.3	0.1	0.1	0.3	0.3	0.1
Stop Del/Veh (s)	49.3	22.9	33.6	44.4	14.7	3.3	46.5	41.8	9.5	39.2	35.4	8.8
Total Stops	65	233	64	112	111	4	21	4	35	19	19	32
Stop/Veh	0.94	0.66	0.83	0.85	0.46	0.40	0.88	0.67	0.65	0.76	0.70	0.80
Travel Dist (mi)	9.2	50.0	10.7	17.3	33.1	1.4	2.6	0.6	6.2	3.0	3.4	5.3
Travel Time (hr)	1.4	4.4	1.3	2.5	2.2	0.1	0.4	0.1	0.4	0.4	0.4	0.3
Avg Speed (mph)	7	11	8	7	15	24	6	7	16	8	9	17
Fuel Used (gal)	0.2	0.9	0.2	0.4	0.7	0.0	0.1	0.0	0.1	0.1	0.1	0.1
Fuel Eff. (mpg)	53.1	57.6	68.9	48.0	48.2	44.9	44.3	44.4	65.5	55.3	53.8	64.3
HC Emissions (g)	6	31	5	13	25	1	2	0	3	3	2	3
CO Emissions (g)	217	1183	176	456	1042	60	57	10	127	83	76	95
NOx Emissions (g)	16	90	13	38	82	4	4	1	10	7	6	8
Vehicles Entered	64	349	75	122	236	10	23	5	53	21	24	38
Vehicles Exited	66	327	70	124	225	10	22	6	53	23	26	39
Hourly Exit Rate	264	1308	280	496	900	40	88	24	212	92	104	156
Input Volume	265	1396	307	495	961	37	86	22	202	87	95	141
% of Volume	100	94	91	100	94	108	102	109	105	106	109	111
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	5	17	5	10	9	0	2	0	2	2	2	1

25: Laguna Springs Dr/W Stockton Blvd & Laguna Blvd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.5
Total Delay (hr)	9.8
Total Del/Veh (s)	33.3
Stop Delay (hr)	7.7
Stop Del/Veh (s)	26.2
Total Stops	719
Stop/Veh	0.68
Travel Dist (mi)	142.8
Travel Time (hr)	13.9
Avg Speed (mph)	10
Fuel Used (gal)	2.6
Fuel Eff. (mpg)	54.1
HC Emissions (g)	94
CO Emissions (g)	3582
NOx Emissions (g)	279
Vehicles Entered	1020
Vehicles Exited	991
Hourly Exit Rate	3964
Input Volume	4094
% of Volume	97
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	270
Occupancy (veh)	55

26: Laguna Blvd & SR 99 SB Ramps Performance by movement

Movement	EBT	EBR	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.5	1.6	0.3
Total Delay (hr)	0.9	0.0	0.6	0.0	1.0	1.1	3.7
Total Del/Veh (s)	8.2	5.0	9.0	2.9	32.9	27.6	13.8
Stop Delay (hr)	0.3	0.0	0.3	0.0	0.9	0.9	2.4
Stop Del/Veh (s)	2.8	0.2	5.0	0.1	28.9	22.3	9.1
Total Stops	46	0	58	0	71	112	287
Stop/Veh	0.12	0.00	0.24	0.00	0.66	0.76	0.30
Travel Dist (mi)	59.9	2.0	46.7	9.2	32.4	45.7	195.9
Travel Time (hr)	2.4	0.1	1.7	0.3	2.1	2.8	9.4
Avg Speed (mph)	25	28	27	34	15	17	21
Fuel Used (gal)	1.6	0.1	0.9	0.1	0.6	0.8	4.0
Fuel Eff. (mpg)	38.6	31.6	54.5	69.3	54.8	60.2	49.5
HC Emissions (g)	63	3	27	4	10	16	124
CO Emissions (g)	2696	141	1043	180	241	360	4660
NOx Emissions (g)	210	9	94	13	29	46	403
Vehicles Entered	389	14	234	55	97	137	926
Vehicles Exited	390	14	230	55	102	138	929
Hourly Exit Rate	1560	56	920	220	408	552	3716
Input Volume	1631	54	946	228	398	546	3803
% of Volume	96	104	97	96	103	101	98
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							358
Occupancy (veh)	10	0	7	1	8	11	37

27: SR 99 NB Off & Bond Rd Performance by movement

Movement	EBT	EBR	WBT	WBR	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	1.0	0.3	0.1
Total Delay (hr)	1.0	0.2	0.6	0.1	0.4	0.4	2.7
Total Del/Veh (s)	10.6	3.9	8.3	4.6	36.1	28.9	10.2
Stop Delay (hr)	0.5	0.0	0.3	0.0	0.4	0.3	1.5
Stop Del/Veh (s)	5.4	0.1	3.8	0.1	32.6	25.7	5.7
Total Stops	98	0	49	0	31	38	216
Stop/Veh	0.29	0.00	0.19	0.00	0.72	0.78	0.22
Travel Dist (mi)	65.9	28.8	48.6	20.0	12.5	14.8	190.5
Travel Time (hr)	2.6	0.9	1.7	0.6	0.9	0.9	7.6
Avg Speed (mph)	26	31	28	33	14	16	25
Fuel Used (gal)	1.2	0.4	1.0	0.4	0.2	0.3	3.6
Fuel Eff. (mpg)	53.2	67.9	47.0	45.2	65.7	55.3	53.0
HC Emissions (g)	38	15	34	14	3	6	109
CO Emissions (g)	1498	565	1401	622	73	122	4281
NOx Emissions (g)	132	44	120	52	8	16	373
Vehicles Entered	326	166	246	107	38	44	927
Vehicles Exited	325	168	249	107	40	46	935
Hourly Exit Rate	1300	672	996	428	160	184	3740
Input Volume	1337	691	1027	442	148	174	3819
% of Volume	97	97	97	97	108	106	98
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							380
Occupancy (veh)	10	4	7	2	3	4	30

28: E Stockton Blvd & Bond Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.3	4.0	0.4	0.1	0.1
Total Delay (hr)	0.4	2.6	0.0	0.3	2.2	0.1	0.2	0.2	0.0	0.1	0.1	0.0
Total Del/Veh (s)	54.6	28.3	3.7	50.7	23.3	7.2	43.6	46.5	15.2	38.4	45.8	11.0
Stop Delay (hr)	0.4	1.6	0.0	0.2	1.5	0.0	0.2	0.2	0.0	0.0	0.1	0.0
Stop Del/Veh (s)	50.0	17.2	2.7	46.0	15.5	2.9	40.0	39.9	13.5	35.6	40.7	10.9
Total Stops	24	174	14	16	163	21	15	13	6	4	6	8
Stop/Veh	0.83	0.53	0.47	0.84	0.48	0.51	0.79	0.76	0.75	0.80	0.67	0.80
Travel Dist (mi)	4.7	57.8	5.2	2.2	43.2	5.2	1.4	1.3	0.6	0.6	1.0	1.3
Travel Time (hr)	0.6	3.9	0.2	0.3	3.2	0.3	0.3	0.3	0.1	0.1	0.1	0.1
Avg Speed (mph)	8	15	28	7	14	20	5	5	10	9	7	17
Fuel Used (gal)	0.1	1.0	0.1	0.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Eff. (mpg)	51.7	57.0	64.1	51.3	50.2	59.0	47.0	38.1	35.9	65.4	54.5	77.6
HC Emissions (g)	3	31	3	1	29	4	1	1	1	0	0	1
CO Emissions (g)	131	1058	121	53	1243	151	29	31	21	15	21	19
NOx Emissions (g)	9	103	9	4	97	12	2	3	2	1	1	2
Vehicles Entered	25	318	29	17	330	40	17	16	7	5	8	10
Vehicles Exited	28	304	29	18	325	41	18	17	7	5	8	10
Hourly Exit Rate	112	1216	116	72	1300	164	72	68	28	20	32	40
Input Volume	101	1291	120	65	1365	161	72	67	30	23	30	32
% of Volume	111	94	97	111	95	102	100	101	93	87	107	125
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	2	16	1	1	13	1	1	1	0	0	1	0

28: E Stockton Blvd & Bond Rd Performance by movement

























Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	6.3
Total Del/Veh (s)	26.5
Stop Delay (hr)	4.3
Stop Del/Veh (s)	18.3
Total Stops	464
Stop/Veh	0.55
Travel Dist (mi)	124.4
Travel Time (hr)	9.4
Avg Speed (mph)	13
Fuel Used (gal)	2.3
Fuel Eff. (mpg)	54.1
HC Emissions (g)	76
CO Emissions (g)	2893
NOx Emissions (g)	245
Vehicles Entered	822
Vehicles Exited	810
Hourly Exit Rate	3240
Input Volume	3357
% of Volume	97
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	299
Occupancy (veh)	37

29: Elk Crest Rd & Bond Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.0	0.0	0.0	2.5	1.7	2.8	0.1	0.1	0.1	0.1	0.1	1.0
Total Delay (hr)	0.4	1.1	0.0	0.4	1.6	0.0	0.2	0.0	0.2	0.0	0.0	4.0
Total Del/Veh (s)	73.2	12.5	11.3	63.6	14.5	9.0	55.6	47.2	46.9	47.1	17.6	18.3
Stop Delay (hr)	0.4	0.3	0.0	0.4	0.8	0.0	0.2	0.0	0.2	0.0	0.0	2.3
Stop Del/Veh (s)	66.0	3.3	5.3	58.4	7.3	4.1	53.5	45.3	45.0	45.3	17.5	10.7
Total Stops	20	62	1	21	138	6	12	2	11	2	3	278
Stop/Veh	0.91	0.20	0.50	0.91	0.36	0.43	0.86	0.67	0.79	0.67	1.00	0.35
Travel Dist (mi)	2.6	40.2	0.2	2.9	49.4	1.7	0.6	0.1	0.6	0.1	0.2	98.7
Travel Time (hr)	0.5	2.0	0.0	0.5	2.8	0.1	0.2	0.0	0.2	0.0	0.0	6.5
Avg Speed (mph)	5	20	16	6	19	19	2	2	3	3	7	16
Fuel Used (gal)	0.1	0.9	0.0	0.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1.9
Fuel Eff. (mpg)	45.0	44.4	69.1	49.5	58.1	64.2	34.7	57.5	34.9	58.8	83.7	50.8
HC Emissions (g)	2	30	0	2	26	1	1	0	1	0	0	63
CO Emissions (g)	64	1087	4	69	1095	34	16	1	15	1	1	2386
NOx Emissions (g)	6	107	0	5	86	3	2	0	1	0	0	210
Vehicles Entered	19	296	2	22	380	13	13	3	13	3	3	767
Vehicles Exited	19	298	2	22	370	13	14	3	13	3	3	760
Hourly Exit Rate	76	1192	8	88	1480	52	56	12	52	12	12	3040
Input Volume	87	1251	5	87	1526	54	54	11	54	11	11	3151
% of Volume	87	95	160	101	97	96	104	109	96	109	109	96
Denied Entry Before	0	0	0	0	1	0	0	0	0	0	0	1
Denied Entry After	0	0	0	0	1	0	0	0	0	0	0	1
Density (ft/veh)												254
Occupancy (veh)	2	8	0	2	11	0	1	0	1	0	0	25

























HCM 2010 Signalized Intersection Summary
30: Elk Grove Florin Rd & Bond Rd

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	452	567	100	366	919	322	212	637	188	187	572	387
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	471	591	38	381	957	158	221	664	95	195	596	186
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	513	1432	641	427	1333	589	268	900	403	242	873	385
Arrive On Green	0.15	0.41	0.41	0.13	0.38	0.38	0.08	0.26	0.26	0.07	0.25	0.25
Sat Flow, veh/h	3408	3505	1568	3408	3505	1548	3408	3505	1568	3408	3505	1545
Grp Volume(v), veh/h	471	591	38	381	957	158	221	664	95	195	596	186
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1548	1704	1752	1568	1704	1752	1545
Q Serve(g_s), s	21.3	18.7	2.3	17.2	36.4	11.0	10.0	27.1	7.5	8.8	24.0	16.1
Cycle Q Clear(g_c), s	21.3	18.7	2.3	17.2	36.4	11.0	10.0	27.1	7.5	8.8	24.0	16.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	513	1432	641	427	1333	589	268	900	403	242	873	385
V/C Ratio(X)	0.92	0.41	0.06	0.89	0.72	0.27	0.82	0.74	0.24	0.81	0.68	0.48
Avail Cap(c_a), veh/h	545	1571	703	545	1571	694	545	900	403	545	1010	445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.4	32.9	28.0	67.3	41.3	33.4	70.9	53.2	45.9	71.5	53.1	50.1
Incr Delay (d2), s/veh	19.4	0.3	0.1	12.3	1.7	0.4	2.4	3.6	0.5	2.4	2.1	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	9.1	1.0	8.8	17.9	4.8	4.8	13.6	3.3	4.2	11.9	7.0
LnGrp Delay(d),s/veh	84.9	33.2	28.1	79.5	43.0	33.8	73.3	56.9	46.4	73.9	55.2	51.7
LnGrp LOS	F	C	C	E	D	C	E	E	D	E	E	D
Approach Vol, veh/h		1100			1496			980			977	
Approach Delay, s/veh		55.1			51.3			59.6			58.3	
Approach LOS		E			D			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.9	44.4	29.5	65.4	15.7	45.6	25.1	69.8				
Change Period (Y+Rc), s	4.6	5.5	6.0	* 6	4.6	5.5	5.5	6.0				
Max Green Setting (Gmax), s	25.0	45.0	25.0	* 70	25.0	40.0	25.0	70.0				
Max Q Clear Time (g_c+I1), s	12.0	26.0	23.3	38.4	10.8	29.1	19.2	20.7				
Green Ext Time (p_c), s	0.3	12.9	0.2	21.1	0.3	8.3	0.4	27.7				
Intersection Summary												
HCM 2010 Ctrl Delay			55.5									
HCM 2010 LOS			E									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												























HCM 2010 Signalized Intersection Summary
31: Waterman Rd & Bond Rd

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	86	620	271	51	940	179	378	200	55	160	153	119
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1881	1881	1863	1881	1863	1881	1792	1863	1845	1881	1881
Adj Flow Rate, veh/h	99	713	134	59	1080	119	434	230	6	184	176	0
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	1	1	2	1	2	1	6	2	3	1	1
Cap, veh/h	164	1865	834	139	1841	815	514	546	254	257	314	140
Arrive On Green	0.05	0.52	0.52	0.04	0.52	0.52	0.15	0.16	0.16	0.08	0.09	0.00
Sat Flow, veh/h	3510	3574	1599	3442	3574	1581	3476	3406	1583	3408	3574	1599
Grp Volume(v), veh/h	99	713	134	59	1080	119	434	230	6	184	176	0
Grp Sat Flow(s),veh/h/ln	1755	1787	1599	1721	1787	1581	1738	1703	1583	1704	1787	1599
Q Serve(g_s), s	2.8	11.9	4.4	1.7	21.0	3.9	12.1	6.1	0.3	5.3	4.7	0.0
Cycle Q Clear(g_c), s	2.8	11.9	4.4	1.7	21.0	3.9	12.1	6.1	0.3	5.3	4.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	1865	834	139	1841	815	514	546	254	257	314	140
V/C Ratio(X)	0.60	0.38	0.16	0.43	0.59	0.15	0.84	0.42	0.02	0.72	0.56	0.00
Avail Cap(c_a), veh/h	879	2505	1121	862	2505	1108	870	1364	634	853	1432	640
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.7	14.3	12.5	46.8	16.8	12.7	41.4	37.8	35.3	45.1	43.7	0.0
Incr Delay (d2), s/veh	1.3	0.2	0.1	0.8	0.4	0.1	1.5	0.2	0.0	1.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.9	2.0	0.8	10.5	1.7	6.0	2.9	0.1	2.5	2.3	0.0
LnGrp Delay(d),s/veh	48.0	14.5	12.6	47.6	17.2	12.8	42.9	37.9	35.4	46.5	44.3	0.0
LnGrp LOS	D	B	B	D	B	B	D	D	D	D	D	
Approach Vol, veh/h		946			1258			670			360	
Approach Delay, s/veh		17.7			18.2			41.1			45.4	
Approach LOS		B			B			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	57.0	19.4	14.3	8.6	57.6	12.1	21.5				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	4.8	23.0	14.1	6.7	3.7	13.9	7.3	8.1				
Green Ext Time (p_c), s	0.1	28.5	0.6	1.5	0.1	31.4	0.3	1.5				
Intersection Summary												
HCM 2010 Ctrl Delay			25.9									
HCM 2010 LOS			C									


















HCM 2010 Signalized Intersection Summary
32: Bradshaw Rd & Bond Rd

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	190	322	134	78	476	172	173	329	84	194	288	313
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	232	393	35	95	580	183	211	401	86	237	351	53
Adj No. of Lanes	2	2	1	1	2	0	2	2	0	2	2	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	318	1356	594	122	953	300	295	616	131	322	780	343
Arrive On Green	0.09	0.39	0.39	0.07	0.36	0.36	0.09	0.21	0.21	0.09	0.22	0.22
Sat Flow, veh/h	3408	3505	1537	1757	2624	826	3408	2870	610	3408	3505	1540
Grp Volume(v), veh/h	232	393	35	95	387	376	211	243	244	237	351	53
Grp Sat Flow(s),veh/h/ln	1704	1752	1537	1757	1752	1698	1704	1752	1728	1704	1752	1540
Q Serve(g_s), s	5.7	6.7	1.2	4.6	15.5	15.6	5.2	10.9	11.1	5.8	7.5	2.4
Cycle Q Clear(g_c), s	5.7	6.7	1.2	4.6	15.5	15.6	5.2	10.9	11.1	5.8	7.5	2.4
Prop In Lane	1.00		1.00	1.00		0.49	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	318	1356	594	122	636	617	295	376	371	322	780	343
V/C Ratio(X)	0.73	0.29	0.06	0.78	0.61	0.61	0.72	0.65	0.66	0.74	0.45	0.15
Avail Cap(c_a), veh/h	989	2848	1249	510	1424	1380	989	814	802	989	1628	715
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	18.2	16.6	39.4	22.4	22.4	38.3	30.9	30.9	37.9	28.9	27.0
Incr Delay (d2), s/veh	1.2	0.2	0.1	4.0	1.3	1.4	1.2	0.7	0.7	1.2	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	3.3	0.5	2.4	7.8	7.6	2.5	5.3	5.4	2.8	3.6	1.0
LnGrp Delay(d),s/veh	39.2	18.4	16.6	43.4	23.8	23.8	39.5	31.6	31.7	39.2	29.1	27.0
LnGrp LOS	D	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		660			858			698			641	
Approach Delay, s/veh		25.6			26.0			34.0			32.6	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.6	36.8	12.7	24.0	10.6	38.8	12.0	24.7				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	7.7	17.6	7.8	13.1	6.6	8.7	7.2	9.5				
Green Ext Time (p_c), s	0.4	13.7	0.3	2.9	0.1	14.0	0.3	2.9				
Intersection Summary												
HCM 2010 Ctrl Delay			29.4									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
 33: Bond Rd & Bader Rd

Existing Conditions
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	356	222	0	0	333	49	0	0	0	20	0	376
Future Volume (veh/h)	356	222	0	0	333	49	0	0	0	20	0	376
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	0	0	1845	1900	1900	1845	1900	1900	1845	1845
Adj Flow Rate, veh/h	414	258	0	0	387	54	0	0	0	23	0	437
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3	3	3	3
Cap, veh/h	447	278	0	0	416	58	0	2	0	297	0	900
Arrive On Green	0.41	0.41	0.00	0.00	0.26	0.26	0.00	0.00	0.00	0.17	0.00	0.17
Sat Flow, veh/h	1102	687	0	0	1585	221	0	1845	0	1757	0	1568
Grp Volume(v), veh/h	672	0	0	0	0	441	0	0	0	23	0	437
Grp Sat Flow(s),veh/h/ln	1790	0	0	0	0	1806	0	1845	0	1757	0	1568
Q Serve(g_s), s	38.1	0.0	0.0	0.0	0.0	25.4	0.0	0.0	0.0	1.2	0.0	17.5
Cycle Q Clear(g_c), s	38.1	0.0	0.0	0.0	0.0	25.4	0.0	0.0	0.0	1.2	0.0	17.5
Prop In Lane	0.62		0.00	0.00		0.12	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	725	0	0	0	0	474	0	2	0	297	0	900
V/C Ratio(X)	0.93	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.00	0.08	0.00	0.49
Avail Cap(c_a), veh/h	925	0	0	0	0	509	0	87	0	297	0	900
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.2	0.0	0.0	0.0	0.0	38.3	0.0	0.0	0.0	37.2	0.0	13.4
Incr Delay (d2), s/veh	12.4	0.0	0.0	0.0	0.0	22.9	0.0	0.0	0.0	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.2	0.0	0.0	0.0	0.0	15.6	0.0	0.0	0.0	0.6	0.0	12.8
LnGrp Delay(d),s/veh	42.6	0.0	0.0	0.0	0.0	61.2	0.0	0.0	0.0	37.3	0.0	13.7
LnGrp LOS	D					E				D		B
Approach Vol, veh/h		672			441			0				460
Approach Delay, s/veh		42.6			61.2			0.0				14.9
Approach LOS		D			E							B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		48.9		0.0		33.7		23.8				
Change Period (Y+Rc), s		5.8		4.6		5.8		5.8				
Max Green Setting (Gmax), s		55.0		5.0		30.0		18.0				
Max Q Clear Time (g_c+I1), s		40.1		0.0		27.4		19.5				
Green Ext Time (p_c), s		3.0		0.0		0.5		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				39.7								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
 34: Grant Line Rd & Bond Rd/Wrangler Dr

Existing Conditions
 Timing Plan: AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	194	2	9	4	4	5	11	679	0	6	428	366
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1369	1900	1900	1776	1900	1624	1776	1863
Adj Flow Rate, veh/h	220	2	0	5	5	0	12	772	0	7	486	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	7	7	17	7	2
Cap, veh/h	273	2	245	8	8	0	27	880	0	14	877	782
Arrive On Green	0.15	0.15	0.00	0.01	0.01	0.00	0.01	0.50	0.00	0.01	0.49	0.00
Sat Flow, veh/h	1794	16	1615	668	668	0	1810	1776	0	1547	1776	1583
Grp Volume(v), veh/h	222	0	0	10	0	0	12	772	0	7	486	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1336	0	0	1810	1776	0	1547	1776	1583
Q Serve(g_s), s	8.7	0.0	0.0	0.5	0.0	0.0	0.5	28.5	0.0	0.3	14.0	0.0
Cycle Q Clear(g_c), s	8.7	0.0	0.0	0.5	0.0	0.0	0.5	28.5	0.0	0.3	14.0	0.0
Prop In Lane	0.99		1.00	0.50		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	275	0	245	17	0	0	27	880	0	14	877	782
V/C Ratio(X)	0.81	0.00	0.00	0.60	0.00	0.00	0.45	0.88	0.00	0.50	0.55	0.00
Avail Cap(c_a), veh/h	617	0	550	218	0	0	616	1694	0	527	1694	1510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.1	0.0	0.0	36.1	0.0	0.0	35.9	16.5	0.0	36.2	13.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	0.0	11.9	0.0	0.0	4.3	1.2	0.0	9.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	0.0	0.3	0.0	0.0	0.3	14.0	0.0	0.2	6.8	0.0
LnGrp Delay(d),s/veh	32.2	0.0	0.0	48.0	0.0	0.0	40.2	17.7	0.0	46.1	13.2	0.0
LnGrp LOS	C			D			D	B		D	B	
Approach Vol, veh/h		222			10			784			493	
Approach Delay, s/veh		32.2			48.0			18.0			13.6	
Approach LOS		C			D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	42.2		17.2	7.0	42.4		6.9				
Change Period (Y+Rc), s	6.0	6.0		6.0	* 6.3	6.0		6.0				
Max Green Setting (Gmax), s	25.0	70.0		25.0	* 25	70.0		12.0				
Max Q Clear Time (g_c+I1), s	2.5	16.0		10.7	2.3	30.5		2.5				
Green Ext Time (p_c), s	0.0	5.9		0.6	0.0	5.9		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			18.9									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM Unsignalized Intersection Capacity Analysis

35: Elk Grove Blvd & I-5 SB Ramps

Timing Plan: AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↕	↔↕		↔↕	↔↕
Volume (veh/h)	1	2	2	18	38	2
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	2	2	20	41	2
Pedestrians		10			10	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		1			1	
Right turn flare (veh)						
Median type					Raised	
Median storage (veh)					1	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	104	93	95	10	0	
vC1, stage 1 conf vol	93	93	0			
vC2, stage 2 conf vol	11	0	95			
vCu, unblocked vol	104	93	95	10	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)	6.1	5.5	5.5			
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	100	100	100	98	97	
cM capacity (veh/h)	785	716	716	1060	1617	
Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	SB 3
Volume Total	2	1	22	21	21	2
Volume Left	1	0	0	21	21	0
Volume Right	0	0	20	0	0	2
cSH	756	716	1011	1617	1617	1700
Volume to Capacity	0.00	0.00	0.02	0.03	0.03	0.00
Queue Length 95th (ft)	0	0	2	2	2	0
Control Delay (s)	9.8	10.0	8.6	7.3	7.3	0.0
Lane LOS	A	B	A	A	A	
Approach Delay (s)	9.9		8.6	6.9		
Approach LOS	A		A			
Intersection Summary						
Average Delay			7.6			
Intersection Capacity Utilization			19.0%		ICU Level of Service	A
Analysis Period (min)			15			

HCM 2010 TWSC
 36: NB Ramps & Elk Grove Blvd

Timing Plan: AM Peak Hour

Intersection

Int Delay, s/veh 10.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	40	0	0	20	1961	2	0	466	0	0	0
Conflicting Peds, #/hr	0	0	10	0	0	10	0	0	10	0	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	225	-	-	-	-	0	-	-	400	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	5	43	0	0	22	2132	2	0	507	0	0	0

Major/Minor

	Major1		Major2		Minor1				
Conflicting Flow All	22	0	0	53	0	0	86	86	32
Stage 1	-	-	-	-	-	-	64	64	-
Stage 2	-	-	-	-	-	-	22	22	-
Critical Hdwy	4.13	-	-	4.16	-	-	6.645	6.545	6.945
Critical Hdwy Stg 1	-	-	-	-	-	-	5.845	5.545	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.445	5.545	-
Follow-up Hdwy	2.227	-	-	2.23	-	-	3.5285	4.0285	3.3285
Pot Cap-1 Maneuver	1587	-	-	1544	-	0	908	802	1032
Stage 1	-	-	-	-	-	0	949	839	-
Stage 2	-	-	-	-	-	0	998	875	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	1574	-	-	1544	-	-	890	0	1023
Mov Cap-2 Maneuver	-	-	-	-	-	-	890	0	-
Stage 1	-	-	-	-	-	-	938	0	-
Stage 2	-	-	-	-	-	-	990	0	-

Approach

























	EB	WB	NB
HCM Control Delay, s	0.8	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt

	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT
Capacity (veh/h)	890	1023	1574	-	-	1544	-
HCM Lane V/C Ratio	0.002	0.495	0.003	-	-	-	-
HCM Control Delay (s)	9.1	11.9	7.3	-	-	0	-
HCM Lane LOS	A	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0	2.8	0	-	-	0	-

























HCM 2010 Signalized Intersection Summary
 37: W Taron Dr/Harbour Point Dr & Elk Grove Blvd

Existing Conditions
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	63	358	85	122	1359	173	357	78	75	259	80	265
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	66	373	39	127	1416	85	372	81	6	270	83	21
Adj No. of Lanes	2	3	1	2	3	1	2	1	1	2	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	143	2692	837	189	2761	848	441	200	167	339	145	122
Arrive On Green	0.04	0.53	0.53	0.06	0.55	0.55	0.13	0.11	0.11	0.10	0.08	0.08
Sat Flow, veh/h	3408	5036	1566	3408	5036	1547	3408	1845	1546	3408	1845	1556
Grp Volume(v), veh/h	66	373	39	127	1416	85	372	81	6	270	83	21
Grp Sat Flow(s),veh/h/ln	1704	1679	1566	1704	1679	1547	1704	1845	1546	1704	1845	1556
Q Serve(g_s), s	1.9	3.7	1.2	3.7	17.7	2.6	10.7	4.1	0.3	7.7	4.3	1.3
Cycle Q Clear(g_c), s	1.9	3.7	1.2	3.7	17.7	2.6	10.7	4.1	0.3	7.7	4.3	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	2692	837	189	2761	848	441	200	167	339	145	122
V/C Ratio(X)	0.46	0.14	0.05	0.67	0.51	0.10	0.84	0.41	0.04	0.80	0.57	0.17
Avail Cap(c_a), veh/h	627	2692	837	457	2761	848	627	323	271	627	323	272
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	11.7	11.1	46.3	14.2	10.8	42.5	41.6	39.9	44.0	44.5	43.1
Incr Delay (d2), s/veh	0.9	0.1	0.1	1.5	0.7	0.2	5.1	1.0	0.1	1.6	2.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.8	0.5	1.8	8.3	1.2	5.3	2.1	0.2	3.7	2.3	0.6
LnGrp Delay(d),s/veh	47.7	11.8	11.2	47.9	14.9	11.0	47.7	42.6	40.0	45.7	47.1	43.5
LnGrp LOS	D	B	B	D	B	B	D	D	D	D	D	D
Approach Vol, veh/h		478			1628			459				374
Approach Delay, s/veh		16.7			17.3			46.7				45.9
Approach LOS		B			B			D				D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	60.3	17.5	13.3	10.2	59.0	14.6	16.3				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	18.4	25.5	18.4	17.5	13.4	30.5	18.4	17.5				
Max Q Clear Time (g_c+I1), s	3.9	19.7	12.7	6.3	5.7	5.7	9.7	6.1				
Green Ext Time (p_c), s	0.0	4.6	0.3	0.5	0.1	14.0	0.2	0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			25.4									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
38: Elk Grove Blvd & Four Winds Dr

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  					 		
Volume (veh/h)	57	1309	0	0	1751	425	0	0	0	557	0	127
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	0	1845	0	1845	0	1845
Adj Flow Rate, veh/h	61	1393	0	0	1863	303	0	0	0	593	0	15
Adj No. of Lanes	1	3	0	0	3	1	0	1	0	2	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	0	0	3	3	0	3	0	3	0	3
Cap, veh/h	78	3701	0	0	3246	1008	0	2	0	559	0	0
Arrive On Green	0.04	0.74	0.00	0.00	0.64	0.64	0.00	0.00	0.00	0.16	0.00	0.00
Sat Flow, veh/h	1757	5202	0	0	5202	1564	0	-84854	0	3408	593	
Grp Volume(v), veh/h	61	1393	0	0	1863	303	0	0	0	593	97.0	
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1564	0	1845	0	1704	F	
Q Serve(g_s), s	3.4	10.1	0.0	0.0	20.9	8.5	0.0	0.0	0.0	16.4		
Cycle Q Clear(g_c), s	3.4	10.1	0.0	0.0	20.9	8.5	0.0	0.0	0.0	16.4		
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	78	3701	0	0	3246	1008	0	2	0	559		
V/C Ratio(X)	0.78	0.38	0.00	0.00	0.57	0.30	0.00	0.00	0.00	1.06		
Avail Cap(c_a), veh/h	200	3701	0	0	3246	1008	0	469	0	559		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.64	0.64	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	47.3	4.9	0.0	0.0	10.0	7.8	0.0	0.0	0.0	41.8		
Incr Delay (d2), s/veh	6.2	0.3	0.0	0.0	0.5	0.5	0.0	0.0	0.0	55.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.8	4.7	0.0	0.0	9.6	3.8	0.0	0.0	0.0	12.0		
LnGrp Delay(d),s/veh	53.5	5.1	0.0	0.0	10.5	8.3	0.0	0.0	0.0	97.0		
LnGrp LOS	D	A			B	A				F		
Approach Vol, veh/h		1454			2166			0				
Approach Delay, s/veh		7.2			10.2			0.0				
Approach LOS		A			B							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4		6						
Phs Duration (G+Y+Rc), s	9.0	70.0	21.0	0.0		79.0						
Change Period (Y+Rc), s	4.6	5.5	4.6	4.6		5.5						
Max Green Setting (Gmax), s	11.4	27.5	16.4	25.4		43.5						
Max Q Clear Time (g_c+I1), s	5.4	22.9	18.4	0.0		12.1						
Green Ext Time (p_c), s	0.0	4.5	0.0	0.0		27.9						
Intersection Summary												
HCM 2010 Ctrl Delay				21.4								
HCM 2010 LOS				C								
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
 39: Franklin Blvd & Elk Grove Blvd

Existing Conditions
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	132	1043	586	50	916	323	836	484	144	288	174	207
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	143	1134	430	54	996	142	909	526	30	313	189	1
Adj No. of Lanes	2	3	2	2	3	1	2	3	1	2	3	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	213	2103	1438	119	1963	598	988	1344	407	383	450	132
Arrive On Green	0.06	0.42	0.42	0.03	0.39	0.39	0.29	0.27	0.27	0.11	0.09	0.09
Sat Flow, veh/h	3408	5036	2700	3408	5036	1533	3408	5036	1525	3408	5036	1479
Grp Volume(v), veh/h	143	1134	430	54	996	142	909	526	30	313	189	1
Grp Sat Flow(s),veh/h/ln	1704	1679	1350	1704	1679	1533	1704	1679	1525	1704	1679	1479
Q Serve(g_s), s	4.9	20.3	10.7	1.9	18.1	7.5	31.0	10.3	1.8	10.8	4.3	0.1
Cycle Q Clear(g_c), s	4.9	20.3	10.7	1.9	18.1	7.5	31.0	10.3	1.8	10.8	4.3	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	213	2103	1438	119	1963	598	988	1344	407	383	450	132
V/C Ratio(X)	0.67	0.54	0.30	0.46	0.51	0.24	0.92	0.39	0.07	0.82	0.42	0.01
Avail Cap(c_a), veh/h	494	2103	1438	494	1963	598	1034	1406	426	494	609	179
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	26.3	15.8	56.8	27.8	24.6	41.2	36.0	32.9	52.0	51.7	49.8
Incr Delay (d2), s/veh	1.0	0.8	0.4	1.0	0.9	0.9	12.1	0.1	0.0	6.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	9.5	4.0	0.9	8.6	3.3	16.2	4.8	0.7	5.4	2.0	0.0
LnGrp Delay(d),s/veh	56.1	27.0	16.2	57.8	28.8	25.6	53.4	36.1	32.9	58.4	51.9	49.8
LnGrp LOS	E	C	B	E	C	C	D	D	C	E	D	D
Approach Vol, veh/h		1707			1192			1465			503	
Approach Delay, s/veh		26.7			29.7			46.8			55.9	
Approach LOS		C			C			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.1	52.3	39.4	16.2	8.8	55.6	18.1	37.5				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	17.4	31.5	36.4	14.5	17.4	31.5	17.4	33.5				
Max Q Clear Time (g_c+I1), s	6.9	20.1	33.0	6.3	3.9	22.3	12.8	12.3				
Green Ext Time (p_c), s	0.6	11.1	1.8	4.5	0.2	8.9	0.7	8.4				
Intersection Summary												
HCM 2010 Ctrl Delay			36.5									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
40: Backer Ranch Dr & Elk Grove Blvd

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Volume (veh/h)	27	1779	77	43	1120	9	85	14	64	10	13	22
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	31	2022	86	49	1273	10	97	16	1	11	15	0
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	1	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	47	3477	147	63	3665	29	122	152	9	22	59	50
Arrive On Green	0.03	0.70	0.70	0.07	1.00	1.00	0.07	0.09	0.09	0.01	0.03	0.00
Sat Flow, veh/h	1757	4954	210	1757	5154	40	1757	1715	107	1757	1845	1568
Grp Volume(v), veh/h	31	1368	740	49	829	454	97	0	17	11	15	0
Grp Sat Flow(s),veh/h/ln	1757	1679	1807	1757	1679	1837	1757	0	1823	1757	1845	1568
Q Serve(g_s), s	2.1	24.6	24.8	3.3	0.0	0.0	6.5	0.0	1.0	0.7	1.0	0.0
Cycle Q Clear(g_c), s	2.1	24.6	24.8	3.3	0.0	0.0	6.5	0.0	1.0	0.7	1.0	0.0
Prop In Lane	1.00		0.12	1.00		0.02	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	47	2356	1268	63	2387	1306	122	0	161	22	59	50
V/C Ratio(X)	0.66	0.58	0.58	0.77	0.35	0.35	0.79	0.00	0.11	0.49	0.26	0.00
Avail Cap(c_a), veh/h	299	2356	1268	299	2387	1306	299	0	234	299	237	201
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.93	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.8	9.0	9.0	55.2	0.0	0.0	55.0	0.0	50.3	58.8	56.7	0.0
Incr Delay (d2), s/veh	5.7	1.1	2.0	6.8	0.4	0.7	4.3	0.0	0.1	6.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	11.6	12.8	1.7	0.1	0.2	3.3	0.0	0.5	0.4	0.5	0.0
LnGrp Delay(d),s/veh	63.5	10.1	11.0	62.0	0.4	0.7	59.3	0.0	50.4	64.8	57.6	0.0
LnGrp LOS	E	B	B	E	A	A	E		D	E	E	
Approach Vol, veh/h		2139			1332			114			26	
Approach Delay, s/veh		11.2			2.7			58.0			60.6	
Approach LOS		B			A			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	89.7	13.0	8.4	7.8	90.8	6.1	15.2				
Change Period (Y+Rc), s	4.6	5.5	4.6	4.6	4.6	5.5	4.6	4.6				
Max Green Setting (Gmax), s	20.4	44.5	20.4	15.4	20.4	44.5	20.4	15.4				
Max Q Clear Time (g_c+I1), s	5.3	26.8	8.5	3.0	4.1	2.0	2.7	3.0				
Green Ext Time (p_c), s	0.1	16.6	0.2	0.0	0.0	36.7	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			9.9									
HCM 2010 LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
41: Bruceville Rd & Elk Grove Blvd























Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	270	1237	137	232	667	142	132	502	249	197	301	110
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	293	1345	82	252	725	53	143	546	97	214	327	32
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	366	2337	713	334	2291	698	215	1004	275	294	1130	310
Arrive On Green	0.21	0.93	0.93	0.03	0.15	0.15	0.06	0.18	0.18	0.08	0.20	0.20
Sat Flow, veh/h	3408	5036	1535	3408	5036	1535	3514	5534	1514	3514	5534	1518
Grp Volume(v), veh/h	293	1345	82	252	725	53	143	546	97	214	327	32
Grp Sat Flow(s),veh/h/ln	1704	1679	1535	1704	1679	1535	1757	1845	1514	1757	1845	1518
Q Serve(g_s), s	9.8	4.9	0.5	8.8	15.4	3.6	4.8	10.8	6.7	7.1	6.0	2.1
Cycle Q Clear(g_c), s	9.8	4.9	0.5	8.8	15.4	3.6	4.8	10.8	6.7	7.1	6.0	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	366	2337	713	334	2291	698	215	1004	275	294	1130	310
V/C Ratio(X)	0.80	0.58	0.12	0.75	0.32	0.08	0.67	0.54	0.35	0.73	0.29	0.10
Avail Cap(c_a), veh/h	579	2337	713	579	2291	698	597	1130	309	597	1130	310
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	2.5	2.3	56.6	34.3	29.3	55.1	44.6	42.9	53.6	40.4	38.8
Incr Delay (d2), s/veh	1.3	0.8	0.2	1.2	0.3	0.2	1.3	0.2	0.3	1.3	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	2.1	0.2	4.2	7.2	1.6	2.4	5.5	2.8	3.5	3.1	0.9
LnGrp Delay(d),s/veh	47.2	3.2	2.6	57.8	34.7	29.5	56.4	44.8	43.2	54.9	40.4	38.9
LnGrp LOS	D	A	A	E	C	C	E	D	D	D	D	D
Approach Vol, veh/h		1720			1030			786			573	
Approach Delay, s/veh		10.7			40.1			46.7			45.8	
Approach LOS		B			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.5	60.6	11.9	30.0	16.4	61.7	14.7	27.3				
Change Period (Y+Rc), s	4.6	6.0	4.6	5.5	4.6	* 6	4.6	5.5				
Max Green Setting (Gmax), s	20.4	34.0	20.4	24.5	20.4	* 35	20.4	24.5				
Max Q Clear Time (g_c+I1), s	11.8	17.4	6.8	8.0	10.8	6.9	9.1	12.8				
Green Ext Time (p_c), s	1.1	15.8	0.6	10.3	1.0	25.5	0.9	7.9				
Intersection Summary												
HCM 2010 Ctrl Delay			29.8									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

























HCM 2010 Signalized Intersection Summary
42: Elk Grove Blvd & Wymark Dr

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	1611	45	59	1034	167	35	10	42	172	7	32
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		1.00	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1900	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	13	1751	24	64	1124	171	38	11	0	193	0	1
Adj No. of Lanes	1	3	1	1	3	0	0	1	1	2	0	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	26	2979	898	83	2700	410	89	26	102	354	0	150
Arrive On Green	0.00	0.20	0.20	0.09	1.00	1.00	0.06	0.06	0.00	0.10	0.00	0.10
Sat Flow, veh/h	1757	5036	1519	1757	4391	668	1377	399	1568	3514	0	1487
Grp Volume(v), veh/h	13	1751	24	64	859	436	49	0	0	193	0	1
Grp Sat Flow(s),veh/h/ln	1757	1679	1519	1757	1679	1702	1776	0	1568	1757	0	1487
Q Serve(g_s), s	0.9	37.9	1.5	4.3	0.0	0.0	3.2	0.0	0.0	6.3	0.0	0.1
Cycle Q Clear(g_c), s	0.9	37.9	1.5	4.3	0.0	0.0	3.2	0.0	0.0	6.3	0.0	0.1
Prop In Lane	1.00		1.00	1.00		0.39	0.78		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	26	2979	898	83	2064	1046	115	0	102	354	0	150
V/C Ratio(X)	0.51	0.59	0.03	0.77	0.42	0.42	0.43	0.00	0.00	0.55	0.00	0.01
Avail Cap(c_a), veh/h	224	2979	898	240	2064	1046	391	0	345	773	0	327
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	0.89	0.89	0.89	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.3	35.0	20.3	53.7	0.0	0.0	54.0	0.0	0.0	51.3	0.0	48.6
Incr Delay (d2), s/veh	10.9	0.6	0.0	12.6	0.5	1.1	2.5	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	17.8	0.7	2.4	0.2	0.3	1.6	0.0	0.0	3.1	0.0	0.0
LnGrp Delay(d),s/veh	70.2	35.6	20.4	66.4	0.5	1.1	56.5	0.0	0.0	52.6	0.0	48.6
LnGrp LOS	E	D	C	E	A	A	E			D		D
Approach Vol, veh/h		1788			1359			49				194
Approach Delay, s/veh		35.7			3.8			56.5				52.6
Approach LOS		D			A			E				D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	80.5		13.4	11.3	77.7		17.7				
Change Period (Y+Rc), s	6.7	6.7		5.6	5.6	6.7		5.6				
Max Green Setting (Gmax), s	15.3	27.3		26.4	16.4	27.3		26.4				
Max Q Clear Time (g_c+I1), s	2.9	2.0		5.2	6.3	39.9		8.3				
Green Ext Time (p_c), s	0.0	22.2		0.2	0.1	0.0		1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			24.2									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

HCM 2010 Signalized Intersection Summary
43: Big Horn Blvd & Elk Grove Blvd

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	188	1400	216	115	1021	172	186	260	258	157	227	120
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	204	1522	160	125	1110	108	202	283	21	171	247	8
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	271	2722	831	189	2601	794	270	582	251	237	548	236
Arrive On Green	0.16	1.00	1.00	0.06	0.52	0.52	0.08	0.17	0.17	0.07	0.16	0.16
Sat Flow, veh/h	3408	5036	1537	3408	5036	1537	3408	3505	1511	3408	3505	1509
Grp Volume(v), veh/h	204	1522	160	125	1110	108	202	283	21	171	247	8
Grp Sat Flow(s),veh/h/ln	1704	1679	1537	1704	1679	1537	1704	1752	1511	1704	1752	1509
Q Serve(g_s), s	6.9	0.0	0.0	4.3	16.4	4.4	7.0	8.8	1.4	5.9	7.7	0.5
Cycle Q Clear(g_c), s	6.9	0.0	0.0	4.3	16.4	4.4	7.0	8.8	1.4	5.9	7.7	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	271	2722	831	189	2601	794	270	582	251	237	548	236
V/C Ratio(X)	0.75	0.56	0.19	0.66	0.43	0.14	0.75	0.49	0.08	0.72	0.45	0.03
Avail Cap(c_a), veh/h	494	2722	831	494	2601	794	494	803	346	494	803	346
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	0.0	0.0	55.6	18.0	15.1	54.1	45.4	42.3	54.7	45.9	42.9
Incr Delay (d2), s/veh	1.2	0.6	0.4	1.5	0.5	0.4	1.5	0.2	0.1	1.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.2	0.1	2.1	7.7	1.9	3.3	4.3	0.6	2.8	3.7	0.2
LnGrp Delay(d),s/veh	50.5	0.6	0.4	57.1	18.5	15.4	55.6	45.6	42.4	56.2	46.1	42.9
LnGrp LOS	D	A	A	E	B	B	E	D	D	E	D	D
Approach Vol, veh/h		1886			1343			506			426	
Approach Delay, s/veh		6.0			21.9			49.5			50.1	
Approach LOS		A			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.1	67.5	14.1	24.3	11.2	70.4	13.0	25.4				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	17.4	37.5	17.4	27.5	17.4	37.5	17.4	27.5				
Max Q Clear Time (g_c+I1), s	8.9	18.4	9.0	9.7	6.3	2.0	7.9	10.8				
Green Ext Time (p_c), s	0.7	18.8	0.6	5.6	0.4	34.7	0.5	5.4				
Intersection Summary												
HCM 2010 Ctrl Delay			20.9									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

44: Laguna Springs Dr & Elk Grove Blvd Performance by movement

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.0	2.0	0.3	2.0		0.0	0.0	0.0	3.3	0.5	0.6	3.9
Total Delay (hr)	0.0	0.4	2.1	0.1	0.0	1.0	1.2	0.1	0.5	0.4	0.4	0.1
Total Del/Veh (s)	33.8	51.7	19.0	6.9		57.5	12.0	11.3	50.9	46.4	18.8	55.2
Stop Delay (hr)	0.0	0.4	1.3	0.0	0.0	0.9	0.7	0.1	0.5	0.3	0.4	0.1
Stop Del/Veh (s)	31.0	45.6	11.5	2.9		53.5	6.5	6.4	46.7	40.8	17.3	52.0
Total Stops	1	26	170	22	0	52	87	9	34	24	59	8
Stop/Veh	0.50	0.84	0.42	0.39		0.84	0.24	0.30	0.89	0.80	0.80	0.89
Travel Dist (mi)	0.3	5.9	80.6	11.4	0.1	9.6	58.6	4.9	6.0	5.0	12.2	1.7
Travel Time (hr)	0.0	0.6	4.0	0.5	0.0	1.3	2.9	0.3	0.8	0.5	0.8	0.2
Avg Speed (mph)	10	10	20	26	7	7	20	18	8	9	15	9
Fuel Used (gal)	0.0	0.1	1.2	0.2	0.0	0.2	1.1	0.1	0.1	0.1	0.2	0.0
Fuel Eff. (mpg)	80.8	63.1	69.9	72.0	58.5	55.7	54.1	66.3	52.2	50.4	60.0	53.6
HC Emissions (g)	0	2	36	7	0	4	31	2	3	3	5	0
CO Emissions (g)	3	85	1361	266	1	148	972	61	119	96	199	22
NOx Emissions (g)	0	6	114	20	0	13	106	7	9	9	16	1
Vehicles Entered	1	28	383	54	0	57	348	29	36	30	73	8
Vehicles Exited	1	28	397	55	0	56	351	29	33	29	69	8
Hourly Exit Rate	4	112	1588	220	0	224	1404	116	132	116	276	32
Input Volume	4	107	1549	218	2	231	1399	119	140	124	282	37
% of Volume	100	105	103	101	0	97	100	97	94	94	98	86
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	2	16	2	0	5	12	1	3	2	3	1

44: Laguna Springs Dr & Elk Grove Blvd Performance by movement

Movement	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.2
Denied Del/Veh (s)	0.5	3.7	0.5
Total Delay (hr)	0.5	0.1	7.0
Total Del/Veh (s)	49.5	16.3	22.0
Stop Delay (hr)	0.4	0.1	5.2
Stop Del/Veh (s)	43.7	14.3	16.3
Total Stops	30	16	538
Stop/Veh	0.86	0.84	0.47
Travel Dist (mi)	6.7	3.7	206.7
Travel Time (hr)	0.7	0.2	12.9
Avg Speed (mph)	10	18	16
Fuel Used (gal)	0.1	0.1	3.4
Fuel Eff. (mpg)	58.0	68.2	61.5
HC Emissions (g)	3	2	99
CO Emissions (g)	103	58	3494
NOx Emissions (g)	9	5	316
Vehicles Entered	34	19	1100
Vehicles Exited	31	18	1105
Hourly Exit Rate	124	72	4420
Input Volume	127	73	4412
% of Volume	98	99	100
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			322
Occupancy (veh)	3	1	51

45: Auto Center Dr & Elk Grove Blvd Performance by movement

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.1	0.2
Total Delay (hr)	0.3	2.5	0.3	0.1	1.4	1.1	0.0	0.4	0.1	0.1	0.2	0.0
Total Del/Veh (s)	49.0	21.0	22.8	49.0	52.1	9.0	5.2	53.1	49.3	18.2	54.8	58.5
Stop Delay (hr)	0.3	1.6	0.2	0.1	1.2	0.6	0.0	0.4	0.1	0.1	0.2	0.0
Stop Del/Veh (s)	42.8	13.4	15.2	44.1	46.3	5.1	3.2	50.4	46.6	17.2	53.2	56.1
Total Stops	21	163	18	10	84	103	0	22	3	26	11	3
Stop/Veh	0.95	0.38	0.43	0.91	0.88	0.24	0.00	0.88	0.75	0.90	0.92	1.00
Travel Dist (mi)	3.6	67.4	6.6	1.7	14.9	65.1	0.2	1.7	0.3	2.1	0.3	0.1
Travel Time (hr)	0.4	4.5	0.5	0.2	1.9	3.2	0.0	0.4	0.1	0.2	0.2	0.1
Avg Speed (mph)	8	15	13	8	8	20	21	4	4	8	2	2
Fuel Used (gal)	0.1	1.4	0.1	0.0	0.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Eff. (mpg)	55.4	48.3	58.9	53.2	44.9	46.4	61.0	37.1	54.3	51.6	34.4	36.5
HC Emissions (g)	1	42	3	1	11	44	0	1	0	1	0	0
CO Emissions (g)	62	1372	96	33	376	1575	2	31	3	29	5	1
NOx Emissions (g)	6	145	11	2	34	149	0	3	0	3	0	0
Vehicles Entered	22	413	40	11	93	420	1	24	4	29	12	3
Vehicles Exited	20	411	40	10	87	424	1	23	3	28	11	3
Hourly Exit Rate	80	1644	160	40	348	1696	4	92	12	112	44	12
Input Volume	82	1635	157	48	387	1702	4	98	16	113	48	10
% of Volume	98	101	102	83	90	100	100	94	75	99	92	120
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	2	18	2	1	8	13	0	2	0	1	1	0

45: Auto Center Dr & Elk Grove Blvd Performance by movement

Movement	SBR	All
Denied Delay (hr)	0.0	0.0
Denied Del/Veh (s)	0.1	0.0
Total Delay (hr)	0.1	6.5
Total Del/Veh (s)	22.1	21.1
Stop Delay (hr)	0.1	4.8
Stop Del/Veh (s)	21.7	15.6
Total Stops	8	472
Stop/Veh	0.89	0.42
Travel Dist (mi)	0.2	164.1
Travel Time (hr)	0.1	11.9
Avg Speed (mph)	4	14
Fuel Used (gal)	0.0	3.4
Fuel Eff. (mpg)	40.6	47.6
HC Emissions (g)	0	105
CO Emissions (g)	5	3592
NOx Emissions (g)	1	355
Vehicles Entered	9	1081
Vehicles Exited	8	1069
Hourly Exit Rate	32	4276
Input Volume	34	4334
% of Volume	94	99
Denied Entry Before	0	0
Denied Entry After	0	0
Density (ft/veh)		182
Occupancy (veh)	0	48

46: Elk Grove Blvd & SR 99 SB Off Performance by movement

Movement	EBT	EBR	WBU	WBL	WBT	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.0	0.4	0.4	0.2
Total Delay (hr)	2.1	0.5	0.0	0.4	0.9	1.6	2.3	7.7
Total Del/Veh (s)	17.6	24.3	48.3	50.0	11.2	38.8	31.9	22.8
Stop Delay (hr)	1.1	0.2	0.0	0.3	0.6	1.2	1.7	5.2
Stop Del/Veh (s)	8.7	12.8	45.1	47.2	7.7	31.2	23.3	15.3
Total Stops	149	33	1	22	98	116	248	667
Stop/Veh	0.34	0.49	1.00	0.85	0.34	0.81	0.95	0.55
Travel Dist (mi)	66.5	10.4	0.1	1.8	22.0	33.9	60.8	195.4
Travel Time (hr)	4.1	0.8	0.0	0.4	1.5	2.6	4.3	13.9
Avg Speed (mph)	16	12	5	4	14	13	14	14
Fuel Used (gal)	1.3	0.2	0.0	0.0	0.3	0.6	0.9	3.3
Fuel Eff. (mpg)	50.7	56.8	60.2	56.0	63.1	60.0	68.0	58.6
HC Emissions (g)	39	6	0	1	8	16	22	92
CO Emissions (g)	1258	175	1	23	219	461	689	2827
NOx Emissions (g)	135	19	0	2	26	48	70	302
Vehicles Entered	427	66	1	23	273	139	251	1180
Vehicles Exited	416	63	1	25	283	131	242	1161
Hourly Exit Rate	1664	252	4	100	1132	524	968	4644
Input Volume	1710	261	4	101	1140	561	1002	4779
% of Volume	97	97	100	99	99	93	97	97
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0
Density (ft/veh)								175
Occupancy (veh)	16	3	0	2	6	10	17	55

47: Elk Grove Blvd Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.4	0.3	0.1	0.9
Total Del/Veh (s)	2.7	3.4	6.0	3.3
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.2	0.1	0.1
Total Stops	7	4	0	11
Stop/Veh	0.01	0.01	0.00	0.01
Travel Dist (mi)	48.2	56.9	15.7	120.8
Travel Time (hr)	2.0	2.0	0.7	4.7
Avg Speed (mph)	24	28	23	26
Fuel Used (gal)	1.3	1.2	0.3	2.8
Fuel Eff. (mpg)	38.1	46.2	51.5	43.2
HC Emissions (g)	42	39	10	91
CO Emissions (g)	1568	1326	344	3237
NOx Emissions (g)	150	133	33	315
Vehicles Entered	548	299	86	933
Vehicles Exited	545	298	86	929
Hourly Exit Rate	2180	1192	344	3716
Input Volume	2275	1246	346	3867
% of Volume	96	96	99	96
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0
Density (ft/veh)				283
Occupancy (veh)	8	8	3	19

48: E Stockton Blvd & SR 99 NB Off Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.6	0.3	0.4	0.1	0.1	0.1	3.3	0.3	0.1	0.1	0.1	0.0
Total Delay (hr)	0.4	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.0	0.1	0.1	0.6
Total Del/Veh (s)	17.4	12.0	12.0	33.4	25.2	5.6	30.8	19.1	12.2	30.9	32.8	24.0
Stop Delay (hr)	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.1	0.1	0.4
Stop Del/Veh (s)	15.3	9.8	10.9	32.2	23.6	5.5	27.1	14.5	10.2	25.2	26.3	15.9
Total Stops	49	1	2	2	2	6	33	53	2	18	14	64
Stop/Veh	0.64	0.50	0.67	1.00	1.00	1.00	0.85	0.62	0.67	1.06	1.00	0.74
Travel Dist (mi)	17.8	0.4	0.7	0.0	0.0	0.1	5.3	12.0	0.4	2.1	1.7	10.6
Travel Time (hr)	1.1	0.0	0.0	0.0	0.0	0.0	0.5	0.8	0.0	0.2	0.2	1.0
Avg Speed (mph)	16	17	18	2	2	7	10	15	17	9	9	11
Fuel Used (gal)	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.3
Fuel Eff. (mpg)	61.8	72.9	72.7	43.9	37.5	81.4	55.0	62.5	76.7	43.0	41.6	41.9
HC Emissions (g)	5	0	0	0	0	0	4	7	0	2	1	8
CO Emissions (g)	121	1	2	0	0	1	123	227	6	61	52	298
NOx Emissions (g)	16	0	0	0	0	0	10	19	0	6	5	27
Vehicles Entered	71	2	3	2	2	6	37	84	3	17	13	83
Vehicles Exited	71	2	3	2	2	6	37	83	3	16	13	83
Hourly Exit Rate	284	8	12	8	8	24	148	332	12	64	52	332
Input Volume	296	6	12	9	7	27	153	331	12	65	61	355
% of Volume	96	133	100	89	114	89	97	100	100	98	85	94
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	4	0	0	0	0	0	2	3	0	1	1	4

48: E Stockton Blvd & SR 99 NB Off Performance by movement

Movement	SBR	All
Denied Delay (hr)	0.0	0.1
Denied Del/Veh (s)	0.0	0.6
Total Delay (hr)	0.3	2.4
Total Del/Veh (s)	8.2	18.0
Stop Delay (hr)	0.1	1.7
Stop Del/Veh (s)	2.7	13.0
Total Stops	71	317
Stop/Veh	0.49	0.66
Travel Dist (mi)	18.2	69.5
Travel Time (hr)	1.1	5.2
Avg Speed (mph)	16	14
Fuel Used (gal)	0.3	1.3
Fuel Eff. (mpg)	53.6	54.1
HC Emissions (g)	12	39
CO Emissions (g)	442	1336
NOx Emissions (g)	40	124
Vehicles Entered	142	465
Vehicles Exited	143	464
Hourly Exit Rate	572	1856
Input Volume	589	1923
% of Volume	97	97
Denied Entry Before	0	0
Denied Entry After	0	0
Density (ft/veh)		349
Occupancy (veh)	5	20

49: E Stockton Blvd/Emerald Vista Dr & Elk Grove Blvd Performance by movement























Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	1.8	2.5	0.9	2.4	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.6	2.3	0.4	0.0	0.4	2.7	0.4	1.4	0.7	0.4	0.0
Total Del/Veh (s)	53.0	59.2	25.4	6.9	59.4	62.3	34.8	28.8	52.3	43.9	38.8	0.0
Stop Delay (hr)	0.0	0.6	1.8	0.0	0.0	0.3	2.0	0.3	1.2	0.6	0.4	0.0
Stop Del/Veh (s)	48.8	54.6	19.9	0.0	55.0	56.4	26.7	22.1	47.1	36.3	33.4	0.0
Total Stops	2	32	163	4	2	21	181	34	75	36	31	0
Stop/Veh	1.00	0.84	0.49	0.02	1.00	0.95	0.66	0.69	0.79	0.65	0.79	0.00
Travel Dist (mi)	0.4	6.4	55.0	34.0	0.3	4.3	53.8	9.7	11.6	6.3	4.9	0.0
Travel Time (hr)	0.0	0.8	3.9	1.5	0.0	0.5	4.3	0.8	1.8	0.9	0.6	0.0
Avg Speed (mph)	9	8	14	23	7	8	13	14	6	7	8	5
Fuel Used (gal)	0.0	0.1	0.9	0.4	0.0	0.1	0.9	0.2	0.3	0.1	0.1	0.0
Fuel Eff. (mpg)	68.6	52.1	58.0	81.7	63.0	56.8	58.9	63.3	44.5	46.2	49.6	40.9
HC Emissions (g)	0	3	23	12	0	2	21	4	9	5	3	0
CO Emissions (g)	3	76	583	332	3	55	679	134	325	179	116	0
NOx Emissions (g)	0	8	71	37	0	4	67	12	29	16	10	0
Vehicles Entered	2	35	317	192	2	21	264	48	88	52	37	0
Vehicles Exited	2	34	311	191	2	20	255	46	89	52	36	0
Hourly Exit Rate	8	136	1244	764	8	80	1020	184	356	208	144	0
Input Volume	10	133	1320	812	6	80	1057	189	362	211	146	2
% of Volume	80	102	94	94	133	100	96	97	98	99	99	0
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	3	16	6	0	2	17	3	7	4	2	0

49: E Stockton Blvd/Emerald Vista Dr & Elk Grove Blvd Performance by movement

Movement	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	3.3	0.7	0.3	0.5
Total Delay (hr)	0.9	0.4	0.1	10.7
Total Del/Veh (s)	56.0	43.7	10.3	31.2
Stop Delay (hr)	0.8	0.4	0.1	8.6
Stop Del/Veh (s)	52.2	40.1	9.5	25.1
Total Stops	49	29	30	689
Stop/Veh	0.88	0.81	0.75	0.56
Travel Dist (mi)	5.3	3.4	4.0	199.6
Travel Time (hr)	1.1	0.6	0.3	17.3
Avg Speed (mph)	5	6	13	12
Fuel Used (gal)	0.1	0.1	0.1	3.4
Fuel Eff. (mpg)	42.5	47.6	55.2	58.6
HC Emissions (g)	4	2	2	89
CO Emissions (g)	96	47	40	2667
NOx Emissions (g)	10	5	5	274
Vehicles Entered	53	34	40	1185
Vehicles Exited	52	34	39	1163
Hourly Exit Rate	208	136	156	4652
Input Volume	199	133	162	4822
% of Volume	105	102	96	96
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0
Density (ft/veh)				185
Occupancy (veh)	4	2	1	68

























HCM 2010 Signalized Intersection Summary
50: Elk Grove Florin Rd & Elk Grove Blvd

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	373	396	220	147	476	37	372	458	83	60	352	305
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.89	1.00		0.96	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	414	440	42	163	529	37	413	509	82	67	391	83
Adj No. of Lanes	2	2	1	1	2	0	2	2	0	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	486	930	396	195	769	54	485	1178	189	86	551	415
Arrive On Green	0.14	0.27	0.27	0.11	0.23	0.23	0.14	0.39	0.39	0.05	0.30	0.30
Sat Flow, veh/h	3408	3505	1492	1757	3294	230	3408	3005	482	1757	1845	1390
Grp Volume(v), veh/h	414	440	42	163	281	285	413	296	295	67	391	83
Grp Sat Flow(s),veh/h/ln	1704	1752	1492	1757	1752	1771	1704	1752	1734	1757	1845	1390
Q Serve(g_s), s	11.9	10.6	2.1	9.2	14.7	14.8	11.9	12.4	12.6	3.8	19.0	4.5
Cycle Q Clear(g_c), s	11.9	10.6	2.1	9.2	14.7	14.8	11.9	12.4	12.6	3.8	19.0	4.5
Prop In Lane	1.00		1.00	1.00		0.13	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	486	930	396	195	409	413	485	687	680	86	551	415
V/C Ratio(X)	0.85	0.47	0.11	0.84	0.69	0.69	0.85	0.43	0.43	0.78	0.71	0.20
Avail Cap(c_a), veh/h	847	1393	593	436	697	704	847	697	689	436	733	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.1	31.1	27.9	43.9	35.2	35.2	42.1	22.4	22.4	47.3	31.4	26.3
Incr Delay (d2), s/veh	1.7	0.1	0.0	3.6	0.8	0.8	1.7	0.2	0.2	5.5	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	5.2	0.9	4.6	7.2	7.3	5.7	6.0	6.0	2.0	9.8	1.7
LnGrp Delay(d),s/veh	43.7	31.2	28.0	47.5	36.0	36.0	43.8	22.5	22.6	52.8	32.5	26.4
LnGrp LOS	D	C	C	D	D	D	D	C	C	D	C	C
Approach Vol, veh/h		896			729			1004			541	
Approach Delay, s/veh		36.8			38.6			31.3			34.1	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.0	28.1	18.9	34.6	15.7	31.3	9.5	44.0				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	13.9	16.8	13.9	21.0	11.2	12.6	5.8	14.6				
Green Ext Time (p_c), s	0.4	4.6	0.4	2.9	0.1	4.8	0.0	3.0				
Intersection Summary												
HCM 2010 Ctrl Delay			35.0									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
 51: Waterman Rd & Elk Grove Blvd

Existing Conditions
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	71	331	114	70	462	242	106	215	34	162	229	89
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1881	1900	1863	1881	1845	1845	1792	1881	1827	1900
Adj Flow Rate, veh/h	84	389	60	82	544	189	125	253	1	191	269	0
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	1	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.77
Percent Heavy Veh, %	3	2	1	0	2	1	3	3	6	1	4	0
Cap, veh/h	111	688	591	108	681	524	161	572	248	238	373	330
Arrive On Green	0.06	0.37	0.37	0.06	0.37	0.37	0.09	0.16	0.16	0.13	0.20	0.00
Sat Flow, veh/h	1757	1863	1598	1810	1863	1433	1757	3505	1519	1792	1827	1615
Grp Volume(v), veh/h	84	389	60	82	544	189	125	253	1	191	269	0
Grp Sat Flow(s),veh/h/ln	1757	1863	1598	1810	1863	1433	1757	1752	1519	1792	1827	1615
Q Serve(g_s), s	3.1	11.1	1.6	3.0	17.5	6.4	4.7	4.4	0.0	6.9	9.2	0.0
Cycle Q Clear(g_c), s	3.1	11.1	1.6	3.0	17.5	6.4	4.7	4.4	0.0	6.9	9.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	688	591	108	681	524	161	572	248	238	373	330
V/C Ratio(X)	0.76	0.57	0.10	0.76	0.80	0.36	0.78	0.44	0.00	0.80	0.72	0.00
Avail Cap(c_a), veh/h	919	1671	1433	947	1671	1285	656	2095	908	669	1092	966
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.8	16.8	13.8	31.0	19.0	15.5	29.7	25.2	23.4	28.2	24.8	0.0
Incr Delay (d2), s/veh	9.9	0.3	0.0	4.2	0.8	0.2	3.0	0.2	0.0	2.4	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	5.8	0.7	1.6	9.1	2.6	2.4	2.1	0.0	3.6	4.7	0.0
LnGrp Delay(d),s/veh	40.7	17.1	13.8	35.2	19.8	15.7	32.8	25.4	23.4	30.6	25.8	0.0
LnGrp LOS	D	B	B	D	B	B	C	C	C	C	C	C
Approach Vol, veh/h		533			815			379			460	
Approach Delay, s/veh		20.4			20.4			27.9			27.8	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	29.1	10.7	18.3	8.6	29.3	13.5	15.5				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	35.0	60.0	25.0	40.0	35.0	60.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	5.1	19.5	6.7	11.2	5.0	13.1	8.9	6.4				
Green Ext Time (p_c), s	0.2	4.8	0.1	2.1	0.1	4.8	0.2	2.1				
Intersection Summary												
HCM 2010 Ctrl Delay			23.3									
HCM 2010 LOS			C									

HCM 2010 AWSC
52: Bradshaw Rd & Elk Grove Blvd

Timing Plan: AM Peak Hour

Intersection																
Intersection Delay, s/veh21.7																
Intersection LOS C																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	118	182	66	0	8	96	22	0	62	237	25	0	54	239	96
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	124	192	69	0	8	101	23	0	65	249	26	0	57	252	101
Number of Lanes	0	0	1	1	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	21.3	13.6	20.9	25.5
HCM LOS	C	B	C	D

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	19%	39%	0%	6%	14%
Vol Thru, %	73%	61%	0%	76%	61%
Vol Right, %	8%	0%	100%	17%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	324	300	66	126	389
LT Vol	62	118	0	8	54
Through Vol	237	182	0	96	239
RT Vol	25	0	66	22	96
Lane Flow Rate	341	316	69	133	409
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.635	0.658	0.127	0.282	0.734
Departure Headway (Hd)	6.706	7.501	6.581	7.658	6.452
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	535	480	541	472	557
Service Time	4.797	5.287	4.366	5.658	4.537
HCM Lane V/C Ratio	0.637	0.658	0.128	0.282	0.734
HCM Control Delay	20.9	23.7	10.3	13.6	25.5
HCM Lane LOS	C	C	B	B	D
HCM 95th-tile Q	4.4	4.7	0.4	1.1	6.2

Intersection

Intersection Delay, s/veh 28.6
 Intersection LOS D

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Vol, veh/h	0	217	5	0	4	473	0	292	139
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	0	40	2	25	9	2	8	3
Mvmt Flow	0	236	5	0	4	514	0	317	151
Number of Lanes	0	1	1	0	0	1	0	1	1

Approach






























	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	17.8	45.9	15
HCM LOS	C	E	B

Lane

	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	1%	100%	0%	0%	0%
Vol Thru, %	99%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	477	217	5	292	139
LT Vol	4	217	0	0	0
Through Vol	473	0	0	292	0
RT Vol	0	0	5	0	139
Lane Flow Rate	518	236	5	317	151
Geometry Grp	4	7	7	7	7
Degree of Util (X)	0.919	0.502	0.011	0.565	0.235
Departure Headway (Hd)	6.379	7.656	7.124	6.408	5.608
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	565	469	500	559	636
Service Time	4.44	5.43	4.898	4.182	3.381
HCM Lane V/C Ratio	0.917	0.503	0.01	0.567	0.237
HCM Control Delay	45.9	18	10	17.3	10.1
HCM Lane LOS	E	C	A	C	B
HCM 95th-tile Q	11.3	2.8	0	3.5	0.9

HCM 2010 Signalized Intersection Summary
 54: Bruceville Rd & Backer Ranch Rd/Civic Center Dr

Existing Conditions
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				 			 	 		 	 	
Volume (veh/h)	63	62	82	57	46	33	119	1055	60	54	683	72
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	68	67	5	62	50	1	129	1147	31	59	742	74
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	90	231	187	138	210	170	165	2112	915	78	1775	177
Arrive On Green	0.05	0.12	0.12	0.04	0.11	0.11	0.09	0.60	0.60	0.04	0.55	0.55
Sat Flow, veh/h	1757	1845	1499	3408	1845	1494	1757	3505	1519	1757	3208	320
Grp Volume(v), veh/h	68	67	5	62	50	1	129	1147	31	59	405	411
Grp Sat Flow(s),veh/h/ln	1757	1845	1499	1704	1845	1494	1757	1752	1519	1757	1752	1776
Q Serve(g_s), s	3.9	3.4	0.3	1.8	2.5	0.1	7.4	19.9	0.9	3.4	13.8	13.8
Cycle Q Clear(g_c), s	3.9	3.4	0.3	1.8	2.5	0.1	7.4	19.9	0.9	3.4	13.8	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	90	231	187	138	210	170	165	2112	915	78	969	982
V/C Ratio(X)	0.75	0.29	0.03	0.45	0.24	0.01	0.78	0.54	0.03	0.76	0.42	0.42
Avail Cap(c_a), veh/h	427	718	583	829	718	582	427	2387	1035	427	1194	1210
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	40.8	39.5	48.2	41.5	40.4	45.5	12.1	8.3	48.6	13.3	13.3
Incr Delay (d2), s/veh	4.7	0.3	0.0	0.9	0.2	0.0	3.1	0.1	0.0	5.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.7	0.1	0.9	1.3	0.0	3.7	9.6	0.4	1.8	6.7	6.8
LnGrp Delay(d),s/veh	52.8	41.1	39.5	49.1	41.7	40.4	48.6	12.1	8.3	54.1	13.5	13.5
LnGrp LOS	D	D	D	D	D	D	D	B	A	D	B	B
Approach Vol, veh/h		140			113			1307			875	
Approach Delay, s/veh		46.7			45.7			15.7			16.2	
Approach LOS		D			D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.2	62.3	9.9	16.3	9.2	67.4	8.7	17.4				
Change Period (Y+Rc), s	4.6	5.5	4.6	4.6	4.6	5.5	4.6	4.6				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	9.4	15.8	5.9	4.5	5.4	21.9	3.8	5.4				
Green Ext Time (p_c), s	0.5	41.0	0.2	0.7	0.2	37.4	0.3	0.7				
Intersection Summary												
HCM 2010 Ctrl Delay			19.0									
HCM 2010 LOS			B									

HCM 2010 AWSC
55: Civic Center Dr & Wymark

Timing Plan: AM Peak Hour

Intersection

Intersection Delay, s/veh12.1

Intersection LOS B

























Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	17	255	18	0	13	80	8	0	18	5	16	0	26	16	4
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	26	386	27	0	20	121	12	0	27	8	24	0	39	24	6
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	14	9.2	8.9	9.3
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	46%	100%	0%	100%	0%	57%
Vol Thru, %	13%	0%	93%	0%	91%	35%
Vol Right, %	41%	0%	7%	0%	9%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	39	17	273	13	88	46
LT Vol	18	17	0	13	0	26
Through Vol	5	0	255	0	80	16
RT Vol	16	0	18	0	8	4
Lane Flow Rate	59	26	414	20	133	70
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.088	0.04	0.574	0.032	0.194	0.107
Departure Headway (Hd)	5.338	5.541	4.992	5.796	5.227	5.531
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	667	644	720	615	683	644
Service Time	3.409	3.289	2.739	3.557	2.988	3.6
HCM Lane V/C Ratio	0.088	0.04	0.575	0.033	0.195	0.109
HCM Control Delay	8.9	8.5	14.3	8.8	9.3	9.3
HCM Lane LOS	A	A	B	A	A	A
HCM 95th-tile Q	0.3	0.1	3.7	0.1	0.7	0.4

HCM 2010 Signalized Intersection Summary
56: Big Horn Blvd & Civic Center Dr

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	108	74	25	5	50	15	12	411	7	3	324	73
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	117	80	6	5	54	1	13	447	7	3	352	67
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	153	429	354	12	281	229	28	1339	21	7	1074	202
Arrive On Green	0.09	0.23	0.23	0.01	0.15	0.15	0.02	0.38	0.38	0.00	0.37	0.37
Sat Flow, veh/h	1757	1845	1522	1757	1845	1508	1757	3530	55	1757	2925	550
Grp Volume(v), veh/h	117	80	6	5	54	1	13	222	232	3	209	210
Grp Sat Flow(s),veh/h/ln	1757	1845	1522	1757	1845	1508	1757	1752	1832	1757	1752	1722
Q Serve(g_s), s	3.9	2.1	0.2	0.2	1.5	0.0	0.4	5.4	5.4	0.1	5.2	5.3
Cycle Q Clear(g_c), s	3.9	2.1	0.2	0.2	1.5	0.0	0.4	5.4	5.4	0.1	5.2	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		0.32
Lane Grp Cap(c), veh/h	153	429	354	12	281	229	28	665	695	7	644	632
V/C Ratio(X)	0.76	0.19	0.02	0.43	0.19	0.00	0.46	0.33	0.33	0.42	0.32	0.33
Avail Cap(c_a), veh/h	726	1220	1007	726	1220	997	726	2029	2121	726	2029	1993
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.0	18.6	17.9	29.9	22.4	21.7	29.5	13.3	13.3	30.0	13.7	13.8
Incr Delay (d2), s/veh	3.0	0.1	0.0	8.9	0.1	0.0	4.2	0.1	0.1	13.9	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.1	0.1	0.1	0.8	0.0	0.2	2.6	2.7	0.1	2.5	2.5
LnGrp Delay(d),s/veh	29.9	18.7	17.9	38.8	22.5	21.7	33.7	13.4	13.4	44.0	13.9	13.9
LnGrp LOS	C	B	B	D	C	C	C	B	B	D	B	B
Approach Vol, veh/h		203			60			467			422	
Approach Delay, s/veh		25.2			23.9			14.0			14.1	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	27.5	10.9	14.8	6.5	28.2	6.0	19.7				
Change Period (Y+Rc), s	6.3	5.3	5.6	5.6	6.3	5.3	5.6	* 5.6				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	* 40				
Max Q Clear Time (g_c+I1), s	2.4	7.3	5.9	3.5	2.1	7.4	2.2	4.1				
Green Ext Time (p_c), s	0.0	14.0	0.2	0.6	0.0	14.0	0.0	0.6				

Intersection Summary













HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.





























HCM 2010 Signalized Intersection Summary
57: Big Horn Blvd & Denali Circle

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑		↕	↑↑			↕	
Volume (veh/h)	113	0	10	0	0	0	4	320	0	0	319	35
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	0	1845	0	1845	1845	0	0	1845	1900
Adj Flow Rate, veh/h	123	0	0	0	0	0	4	348	0	0	347	33
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	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
Percent Heavy Veh, %	3	3	3	0	3	0	3	3	0	0	3	3
Cap, veh/h	224	0	0	0	5	0	10	2105	0	0	1450	137
Arrive On Green	0.13	0.00	0.00	0.00	0.00	0.00	0.01	0.60	0.00	0.00	0.45	0.45
Sat Flow, veh/h	1757	0	0	0	1845	0	1757	3597	0	0	3318	305
Grp Volume(v), veh/h	123	0	0	0	0	0	4	348	0	0	187	193
Grp Sat Flow(s),veh/h/ln	1757	0	0	0	1845	0	1757	1752	0	0	1752	1778
Q Serve(g_s), s	2.4	0.0	0.0	0.0	0.0	0.0	0.1	1.6	0.0	0.0	2.4	2.4
Cycle Q Clear(g_c), s	2.4	0.0	0.0	0.0	0.0	0.0	0.1	1.6	0.0	0.0	2.4	2.4
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00	0.00		0.17
Lane Grp Cap(c), veh/h	224	0	0	0	5	0	10	2105	0	0	788	799
V/C Ratio(X)	0.55	0.00	0.00	0.00	0.00	0.00	0.42	0.17	0.00	0.00	0.24	0.24
Avail Cap(c_a), veh/h	1207	0	0	0	1267	0	1207	6740	0	0	3370	3419
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	0.0	0.0	0.0	0.0	0.0	18.0	3.2	0.0	0.0	6.2	6.2
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	0.0	10.4	0.0	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	0.0	0.0	0.0	0.1	0.8	0.0	0.0	1.2	1.2
LnGrp Delay(d),s/veh	15.7	0.0	0.0	0.0	0.0	0.0	28.5	3.2	0.0	0.0	6.2	6.2
LnGrp LOS	B						C	A			A	A
Approach Vol, veh/h		123			0			352			380	
Approach Delay, s/veh		15.7			0.0			3.5			6.2	
Approach LOS		B						A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	5.5	21.7		0.0		27.2		9.2				
Change Period (Y+Rc), s	5.3	5.3		4.6		5.3		4.6				
Max Green Setting (Gmax), s	25.0	70.0		25.0		70.0		25.0				
Max Q Clear Time (g_c+I1), s	2.1	4.4		0.0		3.6		4.4				
Green Ext Time (p_c), s	0.0	11.5		0.0		11.5		0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			6.5									
HCM 2010 LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
58: Big Horn Blvd & Denali Circle/Lotz Pkwy

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				 		 		 		 	 	
Volume (veh/h)	159	65	7	52	19	40	22	121	45	63	209	47
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.94	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	173	71	6	57	21	3	24	132	10	68	227	38
Adj No. of Lanes	1	1	0	2	1	2	1	2	1	2	2	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	223	395	33	176	296	573	48	840	365	194	805	132
Arrive On Green	0.13	0.24	0.24	0.05	0.16	0.16	0.03	0.24	0.24	0.06	0.27	0.27
Sat Flow, veh/h	1757	1673	141	3408	1845	2589	1757	3505	1523	3408	2992	491
Grp Volume(v), veh/h	173	0	77	57	21	3	24	132	10	68	131	134
Grp Sat Flow(s),veh/h/ln	1757	0	1815	1704	1845	1295	1757	1752	1523	1704	1752	1731
Q Serve(g_s), s	5.6	0.0	2.0	0.9	0.6	0.1	0.8	1.7	0.3	1.1	3.5	3.6
Cycle Q Clear(g_c), s	5.6	0.0	2.0	0.9	0.6	0.1	0.8	1.7	0.3	1.1	3.5	3.6
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	223	0	429	176	296	573	48	840	365	194	472	466
V/C Ratio(X)	0.77	0.00	0.18	0.32	0.07	0.01	0.50	0.16	0.03	0.35	0.28	0.29
Avail Cap(c_a), veh/h	748	0	1236	1451	1256	1921	748	4178	1815	2321	2089	2063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	0.0	17.9	26.9	20.9	18.0	28.2	17.6	17.1	26.6	17.0	17.0
Incr Delay (d2), s/veh	2.2	0.0	0.1	0.4	0.0	0.0	2.9	0.0	0.0	0.4	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	1.0	0.5	0.3	0.0	0.4	0.8	0.1	0.5	1.7	1.7
LnGrp Delay(d),s/veh	27.0	0.0	18.0	27.3	21.0	18.0	31.0	17.7	17.1	27.0	17.1	17.1
LnGrp LOS	C		B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		250			81			166			333	
Approach Delay, s/veh		24.2			25.3			19.6			19.1	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	21.1	13.1	16.6	9.7	19.4	8.6	21.1				
Change Period (Y+Rc), s	6.3	5.3	5.6	* 7.2	6.3	5.3	5.6	7.2				
Max Green Setting (Gmax), s	25.0	70.0	25.0	* 40	40.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	2.8	5.6	7.6	2.6	3.1	3.7	2.9	4.0				
Green Ext Time (p_c), s	0.1	5.4	0.3	0.3	0.4	5.5	0.1	0.3				
Intersection Summary												
HCM 2010 Ctrl Delay			21.3									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
59: Big Horn Blvd & Whitelock Pkwy

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	167	202	8	16	146	148	5	15	6	151	15	71
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	182	220	4	17	159	33	5	16	0	164	16	13
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	364	1065	464	72	764	331	23	451	202	330	767	333
Arrive On Green	0.11	0.30	0.30	0.02	0.22	0.22	0.01	0.13	0.00	0.10	0.22	0.22
Sat Flow, veh/h	3408	3505	1528	3408	3505	1520	3408	3505	1568	3408	3505	1520
Grp Volume(v), veh/h	182	220	4	17	159	33	5	16	0	164	16	13
Grp Sat Flow(s),veh/h/ln	1704	1752	1528	1704	1752	1520	1704	1752	1568	1704	1752	1520
Q Serve(g_s), s	2.4	2.3	0.1	0.2	1.8	0.8	0.1	0.2	0.0	2.2	0.2	0.3
Cycle Q Clear(g_c), s	2.4	2.3	0.1	0.2	1.8	0.8	0.1	0.2	0.0	2.2	0.2	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	364	1065	464	72	764	331	23	451	202	330	767	333
V/C Ratio(X)	0.50	0.21	0.01	0.24	0.21	0.10	0.22	0.04	0.00	0.50	0.02	0.04
Avail Cap(c_a), veh/h	2460	4336	1891	1757	4336	1881	1757	2891	1293	2460	2891	1254
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	12.5	11.8	23.4	15.5	15.2	24.0	18.5	0.0	20.8	14.9	14.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.6	0.0	0.0	1.8	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.1	0.0	0.1	0.9	0.4	0.0	0.1	0.0	1.0	0.1	0.1
LnGrp Delay(d),s/veh	20.8	12.6	11.8	24.0	15.6	15.2	25.7	18.5	0.0	21.2	14.9	14.9
LnGrp LOS	C	B	B	C	B	B	C	B		C	B	B
Approach Vol, veh/h		406			209			21			193	
Approach Delay, s/veh		16.3			16.2			20.2			20.3	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.6	15.9	10.8	15.2	11.0	11.5	6.6	19.3				
Change Period (Y+Rc), s	6.3	5.3	5.6	4.6	6.3	5.3	5.6	4.6				
Max Green Setting (Gmax), s	25.0	40.0	35.0	60.0	35.0	40.0	25.0	60.0				
Max Q Clear Time (g_c+I1), s	2.1	2.3	4.4	3.8	4.2	2.2	2.2	4.3				
Green Ext Time (p_c), s	0.0	0.3	1.2	3.3	1.1	0.3	0.0	3.3				
Intersection Summary												
HCM 2010 Ctrl Delay			17.3									
HCM 2010 LOS			B									













HCM 2010 Signalized Intersection Summary
 60: Wolf Pack Lane/Laguna Springs Dr & Lotz Parkway

Existing Conditions
 Timing Plan: AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	53	6	4	6	15	16	34	102	7	12	136	129
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	58	7	4	7	16	17	37	111	8	13	148	140
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	201	928	404	32	755	327	143	915	398	57	827	359
Arrive On Green	0.06	0.26	0.26	0.01	0.22	0.22	0.04	0.26	0.26	0.02	0.24	0.24
Sat Flow, veh/h	3408	3505	1525	3408	3505	1520	3408	3505	1525	3408	3505	1522
Grp Volume(v), veh/h	58	7	4	7	16	17	37	111	8	13	148	140
Grp Sat Flow(s),veh/h/ln	1704	1752	1525	1704	1752	1520	1704	1752	1525	1704	1752	1522
Q Serve(g_s), s	0.7	0.1	0.1	0.1	0.1	0.4	0.4	1.0	0.2	0.2	1.4	3.2
Cycle Q Clear(g_c), s	0.7	0.1	0.1	0.1	0.1	0.4	0.4	1.0	0.2	0.2	1.4	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	201	928	404	32	755	327	143	915	398	57	827	359
V/C Ratio(X)	0.29	0.01	0.01	0.22	0.02	0.05	0.26	0.12	0.02	0.23	0.18	0.39
Avail Cap(c_a), veh/h	3318	3412	1485	3318	3412	1480	5807	5972	2598	2074	5972	2594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	11.1	11.1	20.2	12.7	12.8	19.1	11.6	11.3	19.9	12.5	13.2
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.3	0.0	0.0	0.4	0.0	0.0	0.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.0	0.1	0.2	0.2	0.5	0.1	0.1	0.7	1.4
LnGrp Delay(d),s/veh	18.8	11.1	11.1	21.5	12.7	12.8	19.4	11.6	11.3	20.7	12.6	13.5
LnGrp LOS	B	B	B	C	B	B	B	B	B	C	B	B
Approach Vol, veh/h		69			40			156			301	
Approach Delay, s/veh		17.6			14.3			13.4			13.3	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.3	14.3	7.0	13.4	5.3	15.3	5.0	15.5				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	70.0	70.0	40.0	40.0	25.0	70.0	40.0	40.0				
Max Q Clear Time (g_c+I1), s	2.4	5.2	2.7	2.4	2.2	3.0	2.1	2.1				
Green Ext Time (p_c), s	0.1	1.3	0.1	0.1	0.0	1.3	0.0	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			13.9									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
 61: Willard Pkwy/Franklin Blvd & Whitelock Pkwy

Existing Conditions
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑		↔	↔	↔	↔	↑↑	↔	↔↔	↑	
Volume (veh/h)	0	0	0	185	0	746	57	510	69	478	262	0
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	0	1845	1845	1845	1845	1845	1845	1845	1845	0
Adj Flow Rate, veh/h	0	0	0	226	0	486	70	622	13	583	320	0
Adj No. of Lanes	0	1	0	1	0	2	1	2	1	2	1	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	3	0	3	3	3	3	3	3	3	3	0
Cap, veh/h	0	2	0	268	0	1203	91	1532	685	686	1082	0
Arrive On Green	0.00	0.00	0.00	0.15	0.00	0.19	0.05	0.44	0.44	0.20	0.59	0.00
Sat Flow, veh/h	0	-33012	0	1757	0	3067	1757	3505	1567	3408	1845	0
Grp Volume(v), veh/h	0	0	0	226	0	486	70	622	13	583	320	0
Grp Sat Flow(s),veh/h/ln	0	1845	0	1757	0	1533	1757	1752	1567	1704	1845	0
Q Serve(g_s), s	0.0	0.0	0.0	10.5	0.0	9.7	3.3	10.2	0.4	13.8	7.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	10.5	0.0	9.7	3.3	10.2	0.4	13.8	7.3	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	2	0	268	0	1203	91	1532	685	686	1082	0
V/C Ratio(X)	0.00	0.00	0.00	0.84	0.00	0.40	0.77	0.41	0.02	0.85	0.30	0.00
Avail Cap(c_a), veh/h	0	748	0	524	0	2095	838	2927	1309	2440	1552	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	34.5	0.0	18.7	39.2	16.2	13.4	32.2	8.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.8	0.0	0.1	5.0	0.1	0.0	1.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	5.3	0.0	4.1	1.7	4.9	0.2	6.6	3.7	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	37.3	0.0	18.8	44.2	16.2	13.4	33.4	8.7	0.0
LnGrp LOS				D		B	D	B	B	C	A	
Approach Vol, veh/h		0			712			705			903	
Approach Delay, s/veh		0.0			24.6			18.9			24.7	
Approach LOS					C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s		20.2	21.5	42.1	17.4	2.8	8.9	54.7				
Change Period (Y+Rc), s		4.6	4.6	5.5	4.6	* 4.6	4.6	* 5.5				
Max Green Setting (Gmax), s		40.0	60.0	70.0	25.0	* 34	40.0	* 71				
Max Q Clear Time (g_c+I1), s		11.7	15.8	12.2	12.5	0.0	5.3	9.3				
Green Ext Time (p_c), s		3.9	1.1	24.4	0.4	0.0	0.1	25.0				
Intersection Summary												
HCM 2010 Ctrl Delay				22.9								
HCM 2010 LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
62: Bruceville Rd & Whitelock Pkwy

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	481	237	37	57	117	52	54	240	172	89	206	327
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	523	258	14	62	127	5	59	261	22	97	224	167
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	659	1160	506	171	658	285	167	837	364	208	879	686
Arrive On Green	0.19	0.33	0.33	0.05	0.19	0.19	0.05	0.24	0.24	0.06	0.25	0.25
Sat Flow, veh/h	3408	3505	1530	3408	3505	1516	3408	3505	1523	3408	3505	1524
Grp Volume(v), veh/h	523	258	14	62	127	5	59	261	22	97	224	167
Grp Sat Flow(s),veh/h/ln	1704	1752	1530	1704	1752	1516	1704	1752	1523	1704	1752	1524
Q Serve(g_s), s	10.1	3.7	0.4	1.2	2.1	0.2	1.2	4.2	0.8	1.9	3.5	4.7
Cycle Q Clear(g_c), s	10.1	3.7	0.4	1.2	2.1	0.2	1.2	4.2	0.8	1.9	3.5	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	659	1160	506	171	658	285	167	837	364	208	879	686
V/C Ratio(X)	0.79	0.22	0.03	0.36	0.19	0.02	0.35	0.31	0.06	0.47	0.25	0.24
Avail Cap(c_a), veh/h	1230	2023	883	1230	2023	875	1230	3541	1538	1230	3541	1843
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	16.7	15.7	31.8	23.7	22.9	31.9	21.7	20.4	31.4	20.8	12.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.5	0.1	0.0	0.5	0.1	0.0	0.6	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	1.8	0.2	0.6	1.0	0.1	0.6	2.0	0.3	0.9	1.7	2.0
LnGrp Delay(d),s/veh	27.5	16.8	15.7	32.3	23.8	22.9	32.4	21.8	20.4	32.0	20.8	12.1
LnGrp LOS	C	B	B	C	C	C	C	C	C	C	C	B
Approach Vol, veh/h		795			194			342			488	
Approach Delay, s/veh		23.8			26.5			23.5			20.1	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	22.7	19.0	17.9	10.5	21.8	9.1	27.8				
Change Period (Y+Rc), s	6.3	5.3	5.6	4.9	6.3	5.3	5.6	4.9				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	3.2	6.7	12.1	4.1	3.9	6.2	3.2	5.7				
Green Ext Time (p_c), s	0.2	6.9	1.3	3.3	0.5	6.9	0.3	3.2				
Intersection Summary												
HCM 2010 Ctrl Delay			23.0									
HCM 2010 LOS			C									

HCM 2010 TWSC
 63: Hood Franklin Rd & I-5 SB Ramps

Timing Plan: AM Peak Hour

Intersection

Int Delay, s/veh 5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	42	3	0	105	75	0	0	0	96	0	83
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	255	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	5	0	0	6	0	0	0	0	1	0	4
Mvmt Flow	0	43	3	0	108	77	0	0	0	99	0	86

Major/Minor

	Major1		Major2		Minor2	
Conflicting Flow All	108	0	-	43	0	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	1495	-	0	1579	-	0
Stage 1	-	-	0	-	-	0
Stage 2	-	-	0	-	-	0
Platoon blocked, %		-			-	
Mov Cap-1 Maneuver	1495	-	-	1579	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach

	EB	WB	SB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt

	EBL	EBT	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	1495	-	1579	-	843	940
HCM Lane V/C Ratio	-	-	-	-	0.117	0.091
HCM Control Delay (s)	0	-	0	-	9.8	9.2
HCM Lane LOS	A	-	A	-	A	A
HCM 95th %tile Q(veh)	0	-	0	-	0.4	0.3

Intersection

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	121	17	0	148	396	32	0	32	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	285	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	2	12	0	2	2	13	0	9	0	0	0
Mvmt Flow	0	155	22	0	190	508	41	0	41	0	0	0

Major/Minor

	Major1		Major2		Minor1			
Conflicting Flow All	190	0	-	155	0	0	345	345 155
Stage 1	-	-	-	-	-	-	155	155 -
Stage 2	-	-	-	-	-	-	190	190 -
Critical Hdwy	4.1	-	-	4.1	-	-	6.53	6.5 6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	5.53	5.5 -
Critical Hdwy Stg 2	-	-	-	-	-	-	5.53	5.5 -
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.617	4 3.381
Pot Cap-1 Maneuver	1396	-	0	1438	-	0	630	581 873
Stage 1	-	-	0	-	-	0	847	773 -
Stage 2	-	-	0	-	-	0	817	747 -
Platoon blocked, %		-			-			
Mov Cap-1 Maneuver	1396	-	-	1438	-	-	630	0 873
Mov Cap-2 Maneuver	-	-	-	-	-	-	630	0 -
Stage 1	-	-	-	-	-	-	847	0 -
Stage 2	-	-	-	-	-	-	817	0 -

Approach














	EB	WB	NB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt

	NBLn1	NBLn2	EBL	EBT	WBL	WBT
Capacity (veh/h)	630	873	1396	-	1438	-
HCM Lane V/C Ratio	0.065	0.047	-	-	-	-
HCM Control Delay (s)	11.1	9.3	0	-	0	-
HCM Lane LOS	B	A	A	-	A	-
HCM 95th %tile Q(veh)	0.2	0.1	0	-	0	-

HCM Signalized Intersection Capacity Analysis
 65: Willard Pkwy & Bilby Rd North

Timing Plan: AM Peak Hour













						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 		
Volume (vph)	261	171	253	174	129	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6	5.6	4.6	5.7	5.7
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1752	1531	1752	3505	1845	1568
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1752	1531	1752	3505	1845	1568
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	307	201	298	205	152	195
RTOR Reduction (vph)	0	149	0	0	0	160
Lane Group Flow (vph)	307	52	298	205	152	35
Confl. Peds. (#/hr)		2				
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	6		7 5	5 7 8	8	
Permitted Phases		6				8
Actuated Green, G (s)	20.8	20.8	27.6	47.7	14.5	14.5
Effective Green, g (s)	20.8	20.8	23.0	42.1	14.5	14.5
Actuated g/C Ratio	0.26	0.26	0.29	0.53	0.18	0.18
Clearance Time (s)	5.6	5.6			5.7	5.7
Vehicle Extension (s)	2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	456	399	504	1849	335	284
v/s Ratio Prot	c0.18		c0.17	0.06	c0.08	
v/s Ratio Perm		0.03				0.02
v/c Ratio	0.67	0.13	0.59	0.11	0.45	0.12
Uniform Delay, d1	26.5	22.6	24.4	9.5	29.1	27.3
Progression Factor	1.00	1.00	1.10	1.19	1.00	1.00
Incremental Delay, d2	3.1	0.1	1.1	0.0	0.4	0.1
Delay (s)	29.5	22.6	27.9	11.2	29.5	27.4
Level of Service	C	C	C	B	C	C
Approach Delay (s)	26.8			21.1	28.3	
Approach LOS	C			C	C	

Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	79.8	Sum of lost time (s)	22.9
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 66: Willard Pkwy & Bilby Rd South

Timing Plan: AM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Volume (vph)	14	405	48	49	1	273	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	5.7			5.6	4.6
Lane Util. Factor	1.00	1.00	1.00			1.00	1.00
Frbp, ped/bikes	1.00	0.99	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.85	0.93			1.00	1.00
Flt Protected	0.95	1.00	1.00			0.95	1.00
Satd. Flow (prot)	1752	1547	1719			1752	1845
Flt Permitted	0.95	1.00	1.00			0.95	1.00
Satd. Flow (perm)	1752	1547	1719			1752	1845
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	17	494	59	60	1	333	17
RTOR Reduction (vph)	0	428	32	0	0	0	0
Lane Group Flow (vph)	17	66	87	0	0	334	17
Confl. Peds. (#/hr)		2					
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	NA		Prot	Prot	NA
Protected Phases	2		4		3 1	3 1	1 3 4
Permitted Phases		2					
Actuated Green, G (s)	10.6	10.6	14.0			36.9	56.5
Effective Green, g (s)	10.6	10.6	14.0			32.3	50.9
Actuated g/C Ratio	0.13	0.13	0.18			0.40	0.64
Clearance Time (s)	7.0	7.0	5.7				
Vehicle Extension (s)	2.0	2.0	2.0				
Lane Grp Cap (vph)	232	205	301			709	1176
v/s Ratio Prot	0.01		c0.05			c0.19	0.01
v/s Ratio Perm		c0.04					
v/c Ratio	0.07	0.32	0.29			0.47	0.01
Uniform Delay, d1	30.3	31.3	28.6			17.5	5.3
Progression Factor	1.00	1.00	1.00			1.63	1.02
Incremental Delay, d2	0.0	0.3	0.2			0.2	0.0
Delay (s)	30.3	31.7	28.8			28.6	5.4
Level of Service	C	C	C			C	A
Approach Delay (s)	31.6		28.8				27.5
Approach LOS	C		C				C
Intersection Summary							
HCM 2000 Control Delay			29.8			HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.40				
Actuated Cycle Length (s)			79.8			Sum of lost time (s)	22.9
Intersection Capacity Utilization			57.2%			ICU Level of Service	B
Analysis Period (min)			15				
c Critical Lane Group							

HCM 2010 Signalized Intersection Summary
67: Bruceville Rd & Bilby Rd

Existing Conditions
Timing Plan: AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Volume (veh/h)	194	6	232	2	5	1	121	111	2	6	214	129
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1900	1845	1900	1900	1845	1845
Adj Flow Rate, veh/h	231	7	225	2	6	0	144	132	2	7	255	43
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	357	21	288	186	523	0	321	272	4	56	815	700
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.00	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	704	52	714	309	1298	0	551	609	8	12	1826	1568
Grp Volume(v), veh/h	463	0	0	8	0	0	278	0	0	262	0	43
Grp Sat Flow(s),veh/h/ln	1469	0	0	1607	0	0	1168	0	0	1839	0	1568
Q Serve(g_s), s	19.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	1.1
Cycle Q Clear(g_c), s	20.0	0.0	0.0	0.2	0.0	0.0	15.8	0.0	0.0	6.7	0.0	1.1
Prop In Lane	0.50		0.49	0.25		0.00	0.52		0.01	0.03		1.00
Lane Grp Cap(c), veh/h	666	0	0	709	0	0	596	0	0	871	0	700
V/C Ratio(X)	0.70	0.00	0.00	0.01	0.00	0.00	0.47	0.00	0.00	0.30	0.00	0.06
Avail Cap(c_a), veh/h	977	0	0	939	0	0	823	0	0	931	0	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	0.0	13.1	0.0	0.0	16.4	0.0	0.0	13.0	0.0	11.5
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.3	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	0.0	0.0	0.1	0.0	0.0	4.5	0.0	0.0	3.5	0.0	0.5
LnGrp Delay(d),s/veh	19.4	0.0	0.0	13.1	0.0	0.0	17.4	0.0	0.0	13.4	0.0	11.6
LnGrp LOS	B			B			B			B		B
Approach Vol, veh/h		463			8			278			305	
Approach Delay, s/veh		19.4			13.1			17.4			13.1	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		38.1		34.9		38.1		34.9				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		35.0		40.0		45.0		45.0				
Max Q Clear Time (g_c+I1), s		8.7		2.2		17.8		22.0				
Green Ext Time (p_c), s		14.5		9.2		14.8		7.4				
Intersection Summary												
HCM 2010 Ctrl Delay				17.0								
HCM 2010 LOS				B								

Intersection

Int Delay, s/veh 10

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	55	154	45	42	387	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	1	4	10	1	2
Mvmt Flow	61	171	50	47	430	46

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	979	73	0 0 97 0
Stage 1	73	-	- - - -
Stage 2	906	-	- - - -
Critical Hdwy	6.4	6.21	- - 4.11 -
Critical Hdwy Stg 1	5.4	-	- - - -
Critical Hdwy Stg 2	5.4	-	- - - -
Follow-up Hdwy	3.5	3.309	- - 2.209 -
Pot Cap-1 Maneuver	280	992	- - 1503 -
Stage 1	955	-	- - - -
Stage 2	398	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	198	992	- - 1503 -
Mov Cap-2 Maneuver	198	-	- - - -
Stage 1	955	-	- - - -
Stage 2	281	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	19.2	0	7.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	483	1503	-
HCM Lane V/C Ratio	-	-	0.481	0.286	-
HCM Control Delay (s)	-	-	19.2	8.4	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.6	1.2	-

69: Kammerer Rd & Lent Ranch Pkwy Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.5	0.1	0.0	0.0		0.1
Total Delay (hr)	0.0	0.1	0.1	0.0	0.0	0.2
Total Del/Veh (s)	3.7	4.1	4.7	1.1		4.3
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	3.6	2.4	2.9	0.2		2.6
Total Stops	1	12	7	0	0	20
Stop/Veh	1.00	0.10	0.12	0.00		0.11
Travel Dist (mi)	0.2	32.6	19.8	0.2	0.1	52.9
Travel Time (hr)	0.0	0.7	0.5	0.0	0.0	1.3
Avg Speed (mph)	37	44	38	40	22	42
Fuel Used (gal)	0.0	0.7	0.4	0.0	0.0	1.1
Fuel Eff. (mpg)	85.5	49.7	47.1	78.1	91.0	48.9
HC Emissions (g)	0	30	13	0	0	43
CO Emissions (g)	2	853	322	3	0	1180
NOx Emissions (g)	0	95	47	0	0	143
Vehicles Entered	1	115	55	1	0	172
Vehicles Exited	1	115	54	1	0	171
Hourly Exit Rate	4	460	216	4	0	684
Input Volume	2	469	224	1	2	698
% of Volume	200	98	96	400	0	98
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Density (ft/veh)						3558
Occupancy (veh)	0	3	2	0	0	5

70: Kammerer Rd & Promenade Pkwy Performance by movement

Movement	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.0		0.0	0.0		4.5	0.6	0.1		0.2
Total Delay (hr)	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.5	0.0	0.0	0.8
Total Del/Veh (s)		4.1		4.3	4.1		5.5	39.4	28.5		9.9
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.6
Stop Del/Veh (s)		1.7		1.4	0.2		5.8	36.0	25.1		6.9
Total Stops	0	19	0	7	0	0	5	38	1	0	70
Stop/Veh		0.16		0.12	0.00		1.00	0.79	1.00		0.23
Travel Dist (mi)	0.2	40.6	0.0	8.2	10.3	0.0	0.5	5.7	0.1	0.1	65.6
Travel Time (hr)	0.0	1.0	0.0	0.3	0.4	0.0	0.0	0.7	0.0	0.0	2.5
Avg Speed (mph)	18	39	6	31	25	4	19	8	10	28	27
Fuel Used (gal)	0.0	0.9	0.0	0.2	0.2	0.0	0.0	0.1	0.0	0.0	1.4
Fuel Eff. (mpg)	83.4	45.0	50.4	38.7	51.6	73.0	90.0	44.8	110.1	107.7	45.3
HC Emissions (g)	0	31	0	9	11	0	0	7	0	0	58
CO Emissions (g)	1	717	1	367	372	0	3	212	1	0	1673
NOx Emissions (g)	0	107	0	29	30	0	0	18	0	0	184
Vehicles Entered	0	115	0	55	72	0	5	44	1	0	292
Vehicles Exited	0	115	0	55	72	0	5	45	1	0	293
Hourly Exit Rate	0	460	0	220	288	0	20	180	4	0	1172
Input Volume	2	469	1	224	313	2	20	164	2	1	1198
% of Volume	0	98	0	98	92	0	100	110	200	0	98
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											2303
Occupancy (veh)	0	4	0	1	2	0	0	3	0	0	10

71: Kammerer Rd/Grant Line Rd & SR 99 SB Ramps Performance by movement

Movement	EBT	EBR	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.1	1.8	0.1
Total Delay (hr)	0.3	0.0	0.3	0.2	0.2	0.0	0.0	1.1
Total Del/Veh (s)	7.9	3.0	9.3	6.2	10.6	9.2	4.8	7.7
Stop Delay (hr)	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.5
Stop Del/Veh (s)	3.6	1.8	3.8	0.1	8.2	5.7	3.9	3.4
Total Stops	43	21	41	0	47	0	11	163
Stop/Veh	0.35	0.49	0.35	0.00	0.61	0.00	0.69	0.33
Travel Dist (mi)	19.1	6.7	20.0	18.9	25.8	0.3	5.6	96.3
Travel Time (hr)	0.8	0.3	0.8	0.8	1.0	0.0	0.2	3.8
Avg Speed (mph)	25	25	25	24	25	27	28	25
Fuel Used (gal)	0.5	0.1	0.4	0.3	0.6	0.0	0.1	2.0
Fuel Eff. (mpg)	42.4	53.5	45.1	61.4	46.5	71.1	44.9	47.9
HC Emissions (g)	23	6	21	17	16	0	3	86
CO Emissions (g)	748	198	773	541	324	2	73	2659
NOx Emissions (g)	67	17	63	48	47	0	9	251
Vehicles Entered	123	42	113	110	72	1	16	477
Vehicles Exited	122	42	112	110	73	1	16	476
Hourly Exit Rate	488	168	448	440	292	4	64	1904
Input Volume	493	161	471	453	294	3	68	1943
% of Volume	99	104	95	97	99	133	94	98
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0
Density (ft/veh)								819
Occupancy (veh)	3	1	3	3	4	0	1	15

72: SR 99 NB Ramps & Grant Line Rd Performance by movement

Movement	EBT	EBR	WBT	WBR	NBL	NBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.3		0.5	0.1
Total Delay (hr)	0.5	0.0	0.6	0.1	0.2	0.0	0.4	1.8
Total Del/Veh (s)	9.9	3.6	11.3	5.7	17.9		8.5	10.0
Stop Delay (hr)	0.2	0.0	0.2	0.0	0.2	0.0	0.2	0.9
Stop Del/Veh (s)	4.9	0.3	3.9	1.3	15.1		5.6	5.1
Total Stops	57	0	51	15	29	0	99	251
Stop/Veh	0.32	0.00	0.28	0.29	0.63		0.66	0.40
Travel Dist (mi)	31.2	3.5	28.9	8.1	17.7	0.1	58.5	147.9
Travel Time (hr)	1.3	0.1	1.3	0.4	0.8	0.0	2.2	6.1
Avg Speed (mph)	24	26	22	22	23	20	27	24
Fuel Used (gal)	0.9	0.1	0.8	0.2	0.3	0.0	1.1	3.3
Fuel Eff. (mpg)	36.5	47.3	36.8	46.5	55.5	70.4	53.6	44.9
HC Emissions (g)	43	4	38	10	9	0	32	137
CO Emissions (g)	1506	148	1324	358	190	0	668	4195
NOx Emissions (g)	124	12	115	30	28	0	95	403
Vehicles Entered	175	20	181	51	43	0	141	611
Vehicles Exited	176	20	180	50	42	0	142	610
Hourly Exit Rate	704	80	720	200	168	0	568	2440
Input Volume	709	78	744	200	180	2	565	2478
% of Volume	99	103	97	100	93	0	101	98
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0
Density (ft/veh)								646
Occupancy (veh)	5	1	5	1	3	0	9	24

73: Survey Rd/E Stockton Blvd & Grant Line Rd Performance by movement





















Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	3.0	2.6	2.5	3.1	0.3	3.9	3.7	0.6
Total Delay (hr)	0.0	0.9	1.0	0.0	0.1	0.1	1.8	0.4	0.2	0.1	0.0	0.2
Total Del/Veh (s)	37.9	42.2	16.4	3.9	42.9	49.0	37.0	33.8	38.2	37.7	12.1	40.6
Stop Delay (hr)	0.0	0.8	0.7	0.0	0.1	0.1	1.1	0.3	0.2	0.1	0.0	0.2
Stop Del/Veh (s)	35.1	37.8	11.0	2.6	40.9	45.6	22.1	22.7	35.2	33.8	11.0	37.0
Total Stops	2	61	95	16	5	10	120	37	18	7	4	16
Stop/Veh	0.67	0.82	0.43	0.46	0.83	0.91	0.69	0.79	0.82	0.78	0.80	0.84
Travel Dist (mi)	0.4	11.1	33.3	5.3	1.0	1.9	29.3	7.7	2.5	1.0	0.5	3.3
Travel Time (hr)	0.0	1.3	1.9	0.2	0.1	0.2	2.5	0.7	0.3	0.1	0.0	0.3
Avg Speed (mph)	9	9	17	24	10	9	13	12	8	8	14	11
Fuel Used (gal)	0.0	0.3	0.9	0.1	0.0	0.0	0.5	0.1	0.1	0.0	0.0	0.1
Fuel Eff. (mpg)	36.9	41.4	36.5	43.0	47.6	59.5	56.4	58.6	48.7	52.2	54.8	55.5
HC Emissions (g)	0	13	46	6	1	1	24	7	2	1	1	2
CO Emissions (g)	15	450	1572	258	33	60	776	170	56	21	20	69
NOx Emissions (g)	1	34	131	18	2	4	62	15	6	2	3	5
Vehicles Entered	3	70	211	34	5	11	166	44	21	9	5	18
Vehicles Exited	3	69	212	34	5	10	164	43	21	8	5	18
Hourly Exit Rate	12	276	848	136	20	40	656	172	84	32	20	72
Input Volume	9	278	856	131	22	40	672	180	89	37	16	71
% of Volume	133	99	99	104	91	100	98	96	94	86	125	101
Denied Entry Before	0	0	0	0	0	0	1	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	1	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	5	8	1	0	1	9	3	1	1	0	1

73: Survey Rd/E Stockton Blvd & Grant Line Rd Performance by movement

Movement	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.2
Denied Del/Veh (s)	0.5	3.7	1.3
Total Delay (hr)	0.1	0.2	5.2
Total Del/Veh (s)	42.0	14.5	27.7
Stop Delay (hr)	0.1	0.2	3.8
Stop Del/Veh (s)	35.3	12.2	20.2
Total Stops	6	39	436
Stop/Veh	0.86	0.85	0.64
Travel Dist (mi)	1.3	8.2	106.7
Travel Time (hr)	0.1	0.5	8.3
Avg Speed (mph)	11	18	13
Fuel Used (gal)	0.0	0.1	2.3
Fuel Eff. (mpg)	34.0	56.1	45.6
HC Emissions (g)	2	6	112
CO Emissions (g)	44	199	3743
NOx Emissions (g)	5	16	303
Vehicles Entered	7	45	649
Vehicles Exited	7	44	643
Hourly Exit Rate	28	176	2572
Input Volume	26	173	2600
% of Volume	108	102	99
Denied Entry Before	0	0	1
Denied Entry After	0	0	1
Density (ft/veh)			387
Occupancy (veh)	0	2	32

HCM 2010 Signalized Intersection Summary
74: Grant Line Rd & Waterman Rd

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	173	734	1	1	626	6	1	1	0	7	0	242
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1743	1807	1900	1900	1810	1624	1900	1900	1900	1900	1473	1712
Adj Flow Rate, veh/h	182	773	1	1	659	2	1	1	0	7	0	21
Adj No. of Lanes	2	2	0	1	2	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	5	5	0	5	17	0	0	0	0	0	11
Cap, veh/h	441	1617	2	4	1117	448	4	4	0	64	0	117
Arrive On Green	0.14	0.46	0.46	0.00	0.32	0.32	0.00	0.00	0.00	0.05	0.00	0.05
Sat Flow, veh/h	3221	3519	5	1810	3438	1380	927	927	0	1403	0	2561
Grp Volume(v), veh/h	182	377	397	1	659	2	2	0	0	7	0	21
Grp Sat Flow(s),veh/h/ln	1610	1717	1807	1810	1719	1380	1854	0	0	1403	0	1280
Q Serve(g_s), s	2.4	7.0	7.0	0.0	7.4	0.0	0.0	0.0	0.0	0.2	0.0	0.4
Cycle Q Clear(g_c), s	2.4	7.0	7.0	0.0	7.4	0.0	0.0	0.0	0.0	0.2	0.0	0.4
Prop In Lane	1.00		0.00	1.00		1.00	0.50		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	441	789	830	4	1117	448	7	0	0	64	0	117
V/C Ratio(X)	0.41	0.48	0.48	0.26	0.59	0.00	0.28	0.00	0.00	0.11	0.00	0.18
Avail Cap(c_a), veh/h	1742	2229	2345	979	4462	1792	1002	0	0	759	0	1385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.3	8.6	8.6	23.0	13.0	10.6	23.0	0.0	0.0	21.2	0.0	21.2
Incr Delay (d2), s/veh	0.2	0.2	0.2	12.2	0.2	0.0	7.7	0.0	0.0	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.3	3.5	0.0	3.5	0.0	0.0	0.0	0.0	0.1	0.0	0.1
LnGrp Delay(d),s/veh	18.5	8.8	8.8	35.2	13.2	10.6	30.7	0.0	0.0	21.4	0.0	21.5
LnGrp LOS	B	A	A	D	B	B	C			C		C
Approach Vol, veh/h		956			662			2				28
Approach Delay, s/veh		10.7			13.2			30.7				21.5
Approach LOS		B			B			C				C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	21.0		6.2	4.7	27.2		8.1				
Change Period (Y+Rc), s	4.6	6.0		6.0	4.6	6.0		6.0				
Max Green Setting (Gmax), s	25.0	60.0		25.0	25.0	60.0		25.0				
Max Q Clear Time (g_c+I1), s	4.4	9.4		2.0	2.0	9.0		2.4				
Green Ext Time (p_c), s	0.3	5.6		0.0	0.0	5.6		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				11.9								
HCM 2010 LOS				B								
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection

Int Delay, s/veh 2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	28	713	526	32	36	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	0	6	9	3	1
Mvmt Flow	30	775	572	35	39	103

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	572	0	1408
Stage 1	-	-	572
Stage 2	-	-	836
Critical Hdwy	4.16	-	6.43
Critical Hdwy Stg 1	-	-	5.43
Critical Hdwy Stg 2	-	-	5.43
Follow-up Hdwy	2.254	-	3.527
Pot Cap-1 Maneuver	981	-	522
Stage 1	-	-	563
Stage 2	-	-	424
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	981	-	522
Mov Cap-2 Maneuver	-	-	144
Stage 1	-	-	563
Stage 2	-	-	401

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	27
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	981	-	-	-	303
HCM Lane V/C Ratio	0.031	-	-	-	0.47
HCM Control Delay (s)	8.8	0	-	-	27
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	2.4

Intersection

Int Delay, s/veh 4.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	274	475	287	3	2	232
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	10	8	0	0	7
Mvmt Flow	295	511	309	3	2	249

























Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	312	0	1410
Stage 1	-	-	310
Stage 2	-	-	1100
Critical Hdwy	4.13	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.227	-	3.5
Pot Cap-1 Maneuver	1243	-	154
Stage 1	-	-	748
Stage 2	-	-	322
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1243	-	103
Mov Cap-2 Maneuver	-	-	103
Stage 1	-	-	748
Stage 2	-	-	215

Approach	EB	WB	SB
HCM Control Delay, s	3.2	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1243	-	-	-	684
HCM Lane V/C Ratio	0.237	-	-	-	0.368
HCM Control Delay (s)	8.8	0	-	-	13.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.9	-	-	-	1.7























HCM 2010 Signalized Intersection Summary
 1: Calvine Rd & Elk Grove Florin Rd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	500	921	273	420	801	112	404	645	163	271	947	314
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	510	940	169	429	817	66	412	658	57	277	966	184
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	417	1138	498	417	1138	496	417	1244	545	309	1134	497
Arrive On Green	0.12	0.32	0.32	0.12	0.32	0.32	0.12	0.35	0.35	0.09	0.32	0.32
Sat Flow, veh/h	3408	3505	1532	3408	3505	1526	3408	3505	1536	3408	3505	1536
Grp Volume(v), veh/h	510	940	169	429	817	66	412	658	57	277	966	184
Grp Sat Flow(s),veh/h/ln	1704	1752	1532	1704	1752	1526	1704	1752	1536	1704	1752	1536
Q Serve(g_s), s	25.0	50.6	17.1	25.0	42.0	6.2	24.7	30.5	5.1	16.4	52.6	18.8
Cycle Q Clear(g_c), s	25.0	50.6	17.1	25.0	42.0	6.2	24.7	30.5	5.1	16.4	52.6	18.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	417	1138	498	417	1138	496	417	1244	545	309	1134	497
V/C Ratio(X)	1.22	0.83	0.34	1.03	0.72	0.13	0.99	0.53	0.10	0.90	0.85	0.37
Avail Cap(c_a), veh/h	417	1200	525	417	1200	522	417	1244	545	417	1200	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	89.7	63.7	52.4	89.7	60.8	48.7	89.6	52.4	44.2	92.0	64.6	53.1
Incr Delay (d2), s/veh	120.4	5.0	0.6	51.8	2.2	0.2	40.8	0.8	0.2	14.6	6.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.7	25.3	7.3	14.7	20.7	2.7	14.0	14.9	2.2	8.4	26.5	8.1
LnGrp Delay(d),s/veh	210.1	68.6	53.0	141.5	63.0	48.9	130.4	53.1	44.3	106.5	71.1	54.1
LnGrp LOS	F	E	D	F	E	D	F	D	D	F	E	D
Approach Vol, veh/h		1619			1312			1127			1427	
Approach Delay, s/veh		111.6			88.0			80.9			75.8	
Approach LOS		F			F			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.5	71.5	30.5	71.9	24.1	78.0	30.5	71.9				
Change Period (Y+Rc), s	5.5	* 5.4	5.5	5.5	5.5	* 5.4	5.5	5.5				
Max Green Setting (Gmax), s	25.0	* 70	25.0	70.0	25.0	* 70	25.0	70.0				
Max Q Clear Time (g_c+I1), s	26.7	54.6	27.0	44.0	18.4	32.5	27.0	52.6				
Green Ext Time (p_c), s	0.0	11.5	0.0	19.0	0.1	27.1	0.0	13.8				
Intersection Summary												
HCM 2010 Ctrl Delay			90.3									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

























HCM 2010 Signalized Intersection Summary
 2: Calvine Rd & Waterman Rd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	209	673	137	282	1058	38	92	175	84	40	147	119
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	225	724	51	303	1138	40	99	188	80	43	158	110
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	259	1164	520	336	1298	46	126	276	118	54	185	129
Arrive On Green	0.15	0.33	0.33	0.19	0.38	0.38	0.07	0.22	0.22	0.03	0.18	0.18
Sat Flow, veh/h	1757	3505	1566	1757	3451	121	1757	1229	523	1757	1014	706
Grp Volume(v), veh/h	225	724	51	303	578	600	99	0	268	43	0	268
Grp Sat Flow(s),veh/h/ln	1757	1752	1566	1757	1752	1820	1757	0	1752	1757	0	1720
Q Serve(g_s), s	11.4	15.9	2.1	15.4	28.0	28.0	5.1	0.0	12.8	2.2	0.0	13.8
Cycle Q Clear(g_c), s	11.4	15.9	2.1	15.4	28.0	28.0	5.1	0.0	12.8	2.2	0.0	13.8
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.30	1.00		0.41
Lane Grp Cap(c), veh/h	259	1164	520	336	659	684	126	0	394	54	0	314
V/C Ratio(X)	0.87	0.62	0.10	0.90	0.88	0.88	0.78	0.00	0.68	0.80	0.00	0.85
Avail Cap(c_a), veh/h	481	2687	1200	481	1343	1395	500	0	768	481	0	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.1	25.7	21.1	36.1	26.5	26.5	41.7	0.0	32.4	44.0	0.0	36.2
Incr Delay (d2), s/veh	3.5	0.2	0.0	12.3	1.5	1.5	4.0	0.0	0.8	9.4	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	7.7	0.9	8.6	13.8	14.3	2.6	0.0	6.3	1.2	0.0	6.8
LnGrp Delay(d),s/veh	41.5	25.9	21.1	48.3	28.0	28.0	45.6	0.0	33.2	53.4	0.0	38.8
LnGrp LOS	D	C	C	D	C	C	D		C	D		D
Approach Vol, veh/h		1000			1481			367				311
Approach Delay, s/veh		29.2			32.2			36.5				40.8
Approach LOS		C			C			D				D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	39.4	12.1	21.8	22.0	35.4	8.2	25.7				
Change Period (Y+Rc), s	4.5	* 5.1	5.5	* 5.2	4.5	5.1	* 5.4	* 5.2				
Max Green Setting (Gmax), s	25.0	* 70	26.0	* 40	25.0	70.0	* 25	* 40				
Max Q Clear Time (g_c+I1), s	13.4	30.0	7.1	15.8	17.4	17.9	4.2	14.8				
Green Ext Time (p_c), s	0.1	4.3	0.1	0.9	0.1	4.3	0.0	0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			32.6									
HCM 2010 LOS			C									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
 3: Bradshaw Rd & Calvin Rd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	152	452	27	45	515	63	47	296	53	197	504	612
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	155	461	9	46	526	15	48	302	46	201	514	314
Adj No. of Lanes	2	2	1	2	2	1	2	2	0	2	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	253	904	404	93	740	331	96	658	99	309	973	430
Arrive On Green	0.07	0.26	0.26	0.03	0.21	0.21	0.03	0.22	0.22	0.09	0.28	0.28
Sat Flow, veh/h	3408	3505	1568	3408	3505	1568	3408	3055	461	3408	3505	1548
Grp Volume(v), veh/h	155	461	9	46	526	15	48	172	176	201	514	314
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1568	1704	1752	1763	1704	1752	1548
Q Serve(g_s), s	2.5	6.3	0.2	0.7	7.8	0.4	0.8	4.8	4.9	3.2	6.9	10.3
Cycle Q Clear(g_c), s	2.5	6.3	0.2	0.7	7.8	0.4	0.8	4.8	4.9	3.2	6.9	10.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	253	904	404	93	740	331	96	377	379	309	973	430
V/C Ratio(X)	0.61	0.51	0.02	0.49	0.71	0.05	0.50	0.46	0.46	0.65	0.53	0.73
Avail Cap(c_a), veh/h	1528	4400	1968	1528	4400	1968	1528	2200	2214	1528	4400	1943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.0	17.7	15.4	26.7	20.4	17.5	26.7	19.0	19.1	24.5	17.1	18.3
Incr Delay (d2), s/veh	0.9	0.2	0.0	1.5	0.5	0.0	1.5	0.3	0.3	0.9	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.0	0.1	0.4	3.8	0.2	0.4	2.3	2.4	1.5	3.4	4.4
LnGrp Delay(d),s/veh	25.9	17.8	15.4	28.2	20.9	17.5	28.2	19.4	19.4	25.4	17.2	19.2
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		625			587			396			1029	
Approach Delay, s/veh		19.8			21.4			20.4			19.4	
Approach LOS		B			C			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	17.3	7.1	21.8	7.0	19.9	10.5	18.3				
Change Period (Y+Rc), s	5.5	* 5.5	5.5	6.3	5.5	* 5.5	5.5	* 6.3				
Max Green Setting (Gmax), s	25.0	* 70	25.0	70.0	25.0	* 70	25.0	* 70				
Max Q Clear Time (g_c+I1), s	4.5	9.8	2.8	12.3	2.7	8.3	5.2	6.9				
Green Ext Time (p_c), s	0.1	2.0	0.0	1.6	0.0	2.0	0.1	1.6				
Intersection Summary												
HCM 2010 Ctrl Delay			20.1									
HCM 2010 LOS			C									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

Intersection												
Intersection Delay, s/veh	18.1											
Intersection LOS	C											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	33	128	54	0	12	255	3	0	37	63	11
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	35	138	58	0	13	274	3	0	40	68	12
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	13.5	15.6	11.5
HCM LOS	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	15%	4%	4%
Vol Thru, %	57%	60%	94%	63%
Vol Right, %	10%	25%	1%	32%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	215	270	445
LT Vol	37	33	12	20
Through Vol	63	128	255	282
RT Vol	11	54	3	143
Lane Flow Rate	119	231	290	478
Geometry Grp	1	1	1	1
Degree of Util (X)	0.22	0.404	0.506	0.743
Departure Headway (Hd)	6.627	6.296	6.279	5.721
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	542	573	575	636
Service Time	4.661	4.317	4.299	3.721
HCM Lane V/C Ratio	0.22	0.403	0.504	0.752
HCM Control Delay	11.5	13.5	15.6	23.4
HCM Lane LOS	B	B	C	C
HCM 95th-tile Q	0.8	1.9	2.8	6.6

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	282	143
Peak Hour Factor	0.93	0.93	0.93	0.93
Heavy Vehicles, %	3	3	3	3
Mvmt Flow	0	22	303	154
Number of Lanes	0	0	1	0

Approach SB



















Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	23.4
HCM LOS	C

Lane

HCM 2010 Signalized Intersection Summary

























5: Grant Line Rd & Calvine Rd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	119	0	28	0	0	0	20	449	0	0	919	265
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1863	0	1863	1900	0	0	1900	1900
Adj Flow Rate, veh/h	123	0	0	0	0	0	21	463	0	0	947	161
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	0	1	1
Peak Hour Factor	0.97	0.92	0.97	0.92	0.92	0.92	0.97	0.97	0.92	0.92	0.97	0.97
Percent Heavy Veh, %	2	2	2	0	2	0	2	0	0	0	0	0
Cap, veh/h	163	0	0	0	4	0	28	1245	0	0	1050	893
Arrive On Green	0.09	0.00	0.00	0.00	0.00	0.00	0.02	0.66	0.00	0.00	0.55	0.55
Sat Flow, veh/h	1810	0	0	0	1863	0	1774	1900	0	0	1900	1615
Grp Volume(v), veh/h	123	0	0	0	0	0	21	463	0	0	947	161
Grp Sat Flow(s),veh/h/ln	1810	0	0	0	1863	0	1774	1900	0	0	1900	1615
Q Serve(g_s), s	2.8	0.0	0.0	0.0	0.0	0.0	0.5	4.6	0.0	0.0	18.5	2.1
Cycle Q Clear(g_c), s	2.8	0.0	0.0	0.0	0.0	0.0	0.5	4.6	0.0	0.0	18.5	2.1
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	163	0	0	0	4	0	28	1245	0	0	1050	893
V/C Ratio(X)	0.76	0.00	0.00	0.00	0.00	0.00	0.76	0.37	0.00	0.00	0.90	0.18
Avail Cap(c_a), veh/h	1742	0	0	0	897	0	1068	3201	0	0	3201	2721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	0.0	0.0	0.0	0.0	0.0	20.4	3.3	0.0	0.0	8.3	4.6
Incr Delay (d2), s/veh	2.7	0.0	0.0	0.0	0.0	0.0	14.7	0.1	0.0	0.0	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.0	0.0	0.0	0.0	0.3	2.3	0.0	0.0	9.8	0.9
LnGrp Delay(d),s/veh	21.1	0.0	0.0	0.0	0.0	0.0	35.1	3.3	0.0	0.0	9.5	4.6
LnGrp LOS	C						D	A			A	A
Approach Vol, veh/h		123			0			484			1108	
Approach Delay, s/veh		21.1			0.0			4.7			8.8	
Approach LOS		C						A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	4.2	28.1		0.0		32.3		9.2				
Change Period (Y+Rc), s	* 3.6	5.1		3.5		5.1		5.5				
Max Green Setting (Gmax), s	* 25	70.0		20.0		70.0		40.0				
Max Q Clear Time (g_c+I1), s	2.5	20.5		0.0		6.6		4.8				
Green Ext Time (p_c), s	0.0	2.5		0.0		2.5		0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			8.5									
HCM 2010 LOS			A									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
 6: Bruceville Rd & Center Parkway/Sheldon Rd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	248	212	570	388	128	249	510	319	213	799	26
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	19	264	19	606	413	41	265	543	104	227	850	8
Adj No. of Lanes	2	2	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	67	334	146	582	1242	381	325	1636	721	286	1595	712
Arrive On Green	0.02	0.10	0.10	0.17	0.25	0.25	0.06	0.31	0.31	0.08	0.46	0.46
Sat Flow, veh/h	3408	3505	1537	3408	5036	1546	3408	3505	1545	3408	3505	1565
Grp Volume(v), veh/h	19	264	19	606	413	41	265	543	104	227	850	8
Grp Sat Flow(s),veh/h/ln	1704	1752	1537	1704	1679	1546	1704	1752	1545	1704	1752	1565
Q Serve(g_s), s	0.7	8.8	1.4	20.5	8.1	2.5	9.2	14.3	5.8	7.8	20.9	0.3
Cycle Q Clear(g_c), s	0.7	8.8	1.4	20.5	8.1	2.5	9.2	14.3	5.8	7.8	20.9	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	67	334	146	582	1242	381	325	1636	721	286	1595	712
V/C Ratio(X)	0.29	0.79	0.13	1.04	0.33	0.11	0.82	0.33	0.14	0.79	0.53	0.01
Avail Cap(c_a), veh/h	469	453	199	582	1242	381	469	1636	721	469	1595	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.0	53.1	49.7	49.8	37.1	35.0	55.1	26.9	24.0	54.0	23.5	17.9
Incr Delay (d2), s/veh	0.9	4.5	0.1	48.3	0.1	0.0	3.9	0.5	0.4	1.9	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	4.5	0.6	13.5	3.8	1.1	4.5	7.0	2.6	3.8	10.4	0.2
LnGrp Delay(d),s/veh	58.9	57.6	49.9	98.1	37.2	35.0	59.1	27.4	24.3	55.9	24.8	17.9
LnGrp LOS	E	E	D	F	D	D	E	C	C	E	C	B
Approach Vol, veh/h		302			1060			912			1085	
Approach Delay, s/veh		57.2			71.9			36.2			31.2	
Approach LOS		E			E			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.9	60.1	7.8	35.1	15.6	61.5	26.0	16.9				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	16.5	45.5	16.5	19.5	16.5	45.5	20.5	15.5				
Max Q Clear Time (g_c+I1), s	11.2	22.9	2.7	10.1	9.8	16.3	22.5	10.8				
Green Ext Time (p_c), s	0.2	6.7	0.0	2.2	0.2	7.1	0.0	0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			47.8									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

7: Lewis Stien Rd/Jocelyn Way & Sheldon Rd Performance by movement

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Denied Del/Veh (s)		3.2	0.4	2.9	0.0	0.0	0.0	0.0	3.2	3.1	0.9	0.5
Total Delay (hr)	0.0	0.0	1.3	0.1	0.0	1.6	0.8	0.0	0.3	1.0	0.2	0.3
Total Del/Veh (s)		41.8	29.2	10.7	84.4	60.6	9.3	5.3	43.8	46.1	42.8	12.6
Stop Delay (hr)	0.0	0.0	1.0	0.1	0.0	1.3	0.4	0.0	0.2	0.9	0.2	0.3
Stop Del/Veh (s)		39.8	22.3	8.3	74.3	51.4	4.8	1.1	39.6	40.8	36.8	10.3
Total Stops	0	3	104	28	1	81	69	4	17	68	12	73
Stop/Veh		0.75	0.63	0.64	1.00	0.86	0.21	0.27	0.81	0.85	0.80	0.81
Travel Dist (mi)	0.0	0.6	31.3	8.2	0.3	24.0	79.7	4.3	2.5	9.9	2.0	11.8
Travel Time (hr)	0.0	0.1	2.1	0.4	0.0	2.3	3.0	0.2	0.4	1.4	0.2	0.8
Avg Speed (mph)	10	9	15	21	10	10	27	28	7	7	8	16
Fuel Used (gal)	0.0	0.0	0.5	0.1	0.0	0.5	1.6	0.1	0.0	0.2	0.0	0.2
Fuel Eff. (mpg)	66.0	71.3	62.1	62.6	60.2	52.6	49.8	52.3	52.7	50.3	51.0	66.8
HC Emissions (g)	0	0	14	5	0	14	47	3	1	5	1	5
CO Emissions (g)	1	13	532	193	4	469	1685	85	54	204	44	206
NOx Emissions (g)	0	1	44	13	0	44	164	9	4	16	4	15
Vehicles Entered	0	3	162	43	1	85	320	15	18	72	14	87
Vehicles Exited	0	4	151	41	1	87	318	15	20	76	15	87
Hourly Exit Rate	0	16	604	164	4	348	1272	60	80	304	60	348
Input Volume	1	14	666	174	6	349	1326	65	83	302	55	348
% of Volume	0	114	91	94	67	100	96	92	96	101	109	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	0	9	2	0	9	12	1	1	5	1	3

7: Lewis Stien Rd/Jocelyn Way & Sheldon Rd Performance by movement

Movement	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	3.9	0.5	3.4	0.7
Total Delay (hr)	0.3	0.2	0.0	6.2
Total Del/Veh (s)	46.7	53.4	9.9	25.0
Stop Delay (hr)	0.3	0.1	0.0	5.0
Stop Del/Veh (s)	43.9	48.6	9.0	19.9
Total Stops	18	10	4	492
Stop/Veh	0.82	0.91	0.80	0.55
Travel Dist (mi)	2.2	1.1	0.5	178.6
Travel Time (hr)	0.4	0.2	0.0	11.5
Avg Speed (mph)	6	6	15	16
Fuel Used (gal)	0.0	0.0	0.0	3.3
Fuel Eff. (mpg)	54.5	48.2	52.1	53.7
HC Emissions (g)	1	1	1	98
CO Emissions (g)	47	28	16	3581
NOx Emissions (g)	3	2	2	321
Vehicles Entered	20	10	5	855
Vehicles Exited	20	11	5	851
Hourly Exit Rate	80	44	20	3404
Input Volume	78	38	17	3522
% of Volume	103	116	118	97
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0
Density (ft/veh)				387
Occupancy (veh)	1	1	0	45

8: SR 99 SB Off/W Stockton Blvd & Sheldon Rd Performance by movement

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.7	0.1	0.8	0.0	0.0	0.0	0.5	0.2	0.7	3.9	0.4
Total Delay (hr)	0.0	0.2	2.1	0.1	1.3	1.2	0.0	1.4	0.1	0.4	0.3	0.2
Total Del/Veh (s)		48.0	27.7	8.0	51.2	13.6	4.8	42.6	41.9	13.7	46.4	52.0
Stop Delay (hr)	0.0	0.2	1.6	0.1	1.2	0.7	0.0	1.3	0.1	0.3	0.3	0.2
Stop Del/Veh (s)		44.1	20.8	4.8	46.1	8.0	1.8	38.8	39.6	12.3	43.5	47.7
Total Stops	0	11	151	26	70	107	9	89	5	78	22	10
Stop/Veh		0.85	0.55	0.60	0.78	0.33	0.32	0.76	0.71	0.76	0.81	0.83
Travel Dist (mi)	0.0	3.0	67.4	10.5	14.3	54.6	4.6	35.8	2.2	33.1	3.3	1.5
Travel Time (hr)	0.0	0.3	4.0	0.4	1.7	2.7	0.2	2.9	0.2	1.8	0.5	0.2
Avg Speed (mph)	14	11	17	24	8	20	23	13	13	19	7	7
Fuel Used (gal)	0.0	0.1	1.4	0.2	0.3	1.0	0.1	0.7	0.0	0.6	0.1	0.0
Fuel Eff. (mpg)	48.8	58.5	48.4	49.1	53.8	54.3	59.7	52.3	47.9	57.5	50.6	50.7
HC Emissions (g)	0	2	46	6	7	27	2	11	1	10	1	1
CO Emissions (g)	0	83	1807	278	265	937	71	256	15	229	48	27
NOx Emissions (g)	0	6	150	21	21	97	7	34	2	31	4	3
Vehicles Entered	0	12	268	41	82	316	27	102	6	95	24	11
Vehicles Exited	0	12	260	42	86	307	27	107	7	95	25	12
Hourly Exit Rate	0	48	1040	168	344	1228	108	428	28	380	100	48
Input Volume	1	50	1123	169	341	1307	109	411	25	377	97	45
% of Volume	0	96	93	99	101	94	99	104	112	101	103	107
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	1	16	2	7	11	1	11	1	7	2	1

8: SR 99 SB Off/W Stockton Blvd & Sheldon Rd Performance by movement

Movement	SBR	All
Denied Delay (hr)	0.0	0.1
Denied Del/Veh (s)	0.5	0.3
Total Delay (hr)	0.1	7.4
Total Del/Veh (s)	30.0	25.4
Stop Delay (hr)	0.1	5.9
Stop Del/Veh (s)	28.1	20.4
Total Stops	6	584
Stop/Veh	0.86	0.56
Travel Dist (mi)	0.9	231.2
Travel Time (hr)	0.1	14.9
Avg Speed (mph)	10	16
Fuel Used (gal)	0.0	4.4
Fuel Eff. (mpg)	65.8	52.3
HC Emissions (g)	1	116
CO Emissions (g)	19	4037
NOx Emissions (g)	2	379
Vehicles Entered	7	991
Vehicles Exited	7	987
Hourly Exit Rate	28	3948
Input Volume	28	4083
% of Volume	100	97
Denied Entry Before	0	0
Denied Entry After	0	0
Density (ft/veh)		383
Occupancy (veh)	0	59

9: SR 99 NB Off & Sheldon Rd Performance by movement

Movement	EBT	EBR	WBT	WBR	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.5	0.1
Total Delay (hr)	0.8	0.1	0.8	0.1	0.7	0.5	3.0
Total Del/Veh (s)	9.1	2.3	7.9	6.9	45.9	20.8	11.1
Stop Delay (hr)	0.4	0.0	0.4	0.1	0.7	0.5	2.0
Stop Del/Veh (s)	4.4	0.2	3.8	5.1	42.4	18.2	7.3
Total Stops	86	0	93	16	46	73	314
Stop/Veh	0.28	0.00	0.24	0.29	0.82	0.82	0.32
Travel Dist (mi)	53.2	14.0	58.1	8.7	13.8	23.7	171.5
Travel Time (hr)	2.3	0.6	2.4	0.4	1.1	1.3	8.1
Avg Speed (mph)	23	24	24	21	12	18	21
Fuel Used (gal)	1.2	0.2	1.3	0.2	0.2	0.4	3.5
Fuel Eff. (mpg)	44.9	61.1	46.1	53.0	55.9	55.6	48.8
HC Emissions (g)	41	9	38	6	5	9	109
CO Emissions (g)	1635	394	1504	249	159	253	4194
NOx Emissions (g)	137	28	135	19	16	26	362
Vehicles Entered	302	78	374	54	49	84	941
Vehicles Exited	304	79	373	54	52	85	947
Hourly Exit Rate	1216	316	1492	216	208	340	3788
Input Volume	1261	336	1558	230	199	334	3918
% of Volume	96	94	96	94	105	102	97
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							315
Occupancy (veh)	9	2	10	2	5	5	33

10: E Stockton Blvd & Sheldon Rd Performance by movement

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.8	3.5	3.0
Total Delay (hr)	0.0	0.3	1.7	0.1	0.0	0.4	1.8	0.0	0.5	0.1	0.2	0.0
Total Del/Veh (s)	50.6	54.2	18.2	6.3	26.1	50.0	19.7	4.0	47.2	30.1	13.8	43.5
Stop Delay (hr)	0.0	0.3	1.1	0.0	0.0	0.4	1.2	0.0	0.5	0.1	0.2	0.0
Stop Del/Veh (s)	48.7	50.8	11.7	3.3	23.0	42.9	12.9	1.4	44.0	25.5	12.3	41.6
Total Stops	2	17	147	15	1	27	134	1	33	9	35	2
Stop/Veh	1.00	0.85	0.43	0.41	1.00	0.90	0.41	0.33	0.82	0.56	0.69	1.00
Travel Dist (mi)	0.3	2.8	49.7	5.3	0.2	7.5	87.2	0.7	4.0	1.6	5.4	0.2
Travel Time (hr)	0.0	0.4	3.1	0.3	0.0	0.6	4.1	0.0	0.7	0.2	0.4	0.0
Avg Speed (mph)	7	7	16	21	13	12	21	28	6	9	14	5
Fuel Used (gal)	0.0	0.0	1.0	0.1	0.0	0.1	1.8	0.0	0.1	0.0	0.1	0.0
Fuel Eff. (mpg)	57.1	55.6	49.1	59.4	55.3	49.8	47.3	65.8	52.1	56.7	61.6	53.1
HC Emissions (g)	0	2	31	4	0	4	58	0	3	1	3	0
CO Emissions (g)	6	67	1117	138	2	149	2153	14	121	29	125	3
NOx Emissions (g)	0	5	105	12	0	13	195	1	7	2	9	0
Vehicles Entered	2	18	333	36	1	27	317	2	36	15	49	2
Vehicles Exited	2	19	319	36	1	30	314	3	37	15	49	2
Hourly Exit Rate	8	76	1276	144	4	120	1256	12	148	60	196	8
Input Volume	8	72	1361	153	3	114	1331	9	142	58	208	10
% of Volume	100	106	94	94	133	105	94	133	104	103	94	80
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	2	12	1	0	3	16	0	3	1	2	0

10: E Stockton Blvd & Sheldon Rd Performance by movement

Movement	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1
Denied Del/Veh (s)	0.2	0.3	0.4
Total Delay (hr)	0.4	0.4	6.1
Total Del/Veh (s)	42.8	20.5	22.2
Stop Delay (hr)	0.4	0.4	4.5
Stop Del/Veh (s)	38.3	18.9	16.7
Total Stops	26	64	513
Stop/Veh	0.76	0.81	0.52
Travel Dist (mi)	2.9	7.1	174.8
Travel Time (hr)	0.5	0.8	11.2
Avg Speed (mph)	6	9	16
Fuel Used (gal)	0.1	0.1	3.6
Fuel Eff. (mpg)	41.7	55.1	49.2
HC Emissions (g)	2	3	110
CO Emissions (g)	66	114	4104
NOx Emissions (g)	6	10	365
Vehicles Entered	31	76	945
Vehicles Exited	33	76	936
Hourly Exit Rate	132	304	3744
Input Volume	132	307	3908
% of Volume	100	99	96
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			356
Occupancy (veh)	2	3	44

11: Garity Dr/Power Inn Rd & Sheldon Rd Performance by movement

























Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	3.0	2.3	0.6	2.4	4.0	0.1	4.1	2.0
Total Delay (hr)	0.0	1.4	1.7	0.0	0.0	0.1	1.7	0.1	0.1	0.0	0.0	0.0
Total Del/Veh (s)	39.6	52.9	20.8	8.2	85.9	54.8	22.8	6.4	53.4	41.2	13.4	26.0
Stop Delay (hr)	0.0	1.2	1.0	0.0	0.0	0.1	1.2	0.0	0.1	0.0	0.0	0.0
Stop Del/Veh (s)	36.0	46.5	12.2	2.0	80.6	49.8	15.9	4.2	51.8	39.4	13.5	25.1
Total Stops	1	81	115	2	1	5	146	15	7	2	4	1
Stop/Veh	0.50	0.88	0.39	0.40	1.00	0.83	0.55	0.52	0.88	1.00	1.00	1.00
Travel Dist (mi)	0.3	22.5	78.3	1.4	0.2	1.2	53.4	5.9	0.8	0.2	0.4	0.1
Travel Time (hr)	0.0	2.0	3.8	0.1	0.0	0.1	3.1	0.3	0.2	0.0	0.0	0.0
Avg Speed (mph)	11	11	21	27	8	9	18	25	5	6	12	8
Fuel Used (gal)	0.0	0.4	1.6	0.0	0.0	0.0	0.8	0.1	0.0	0.0	0.0	0.0
Fuel Eff. (mpg)	63.7	50.0	47.8	42.4	73.4	52.3	64.0	65.8	43.6	62.6	76.9	59.2
HC Emissions (g)	0	13	47	2	0	0	24	2	0	0	0	0
CO Emissions (g)	5	449	1580	48	4	14	808	94	8	1	2	2
NOx Emissions (g)	0	42	165	5	0	1	75	8	1	0	0	0
Vehicles Entered	1	81	284	5	1	6	261	29	8	2	4	1
Vehicles Exited	1	87	281	5	1	6	247	28	8	2	4	1
Hourly Exit Rate	4	348	1124	20	4	24	988	112	32	8	16	4
Input Volume	7	352	1201	23	6	22	1064	110	27	8	15	2
% of Volume	57	99	94	87	67	109	93	102	119	100	107	200
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	8	15	0	0	0	12	1	1	0	0	0

11: Garity Dr/Power Inn Rd & Sheldon Rd Performance by movement

Movement	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	3.2	0.4	0.4	0.6
Total Delay (hr)	0.7	0.0	0.4	6.2
Total Del/Veh (s)	43.3	32.3	13.6	25.7
Stop Delay (hr)	0.6	0.0	0.3	4.6
Stop Del/Veh (s)	40.0	29.3	11.5	19.3
Total Stops	47	1	71	499
Stop/Veh	0.84	0.50	0.76	0.58
Travel Dist (mi)	7.0	0.3	12.5	184.5
Travel Time (hr)	1.0	0.0	0.8	11.4
Avg Speed (mph)	8	10	15	16
Fuel Used (gal)	0.1	0.0	0.2	3.4
Fuel Eff. (mpg)	58.6	77.9	65.0	53.9
HC Emissions (g)	3	0	6	98
CO Emissions (g)	89	2	226	3330
NOx Emissions (g)	8	0	17	322
Vehicles Entered	51	2	90	826
Vehicles Exited	54	2	90	817
Hourly Exit Rate	216	8	360	3268
Input Volume	200	9	358	3404
% of Volume	108	89	101	96
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0
Density (ft/veh)				378
Occupancy (veh)	4	0	3	45

HCM 2010 Signalized Intersection Summary
 12: Sheldon Rd & Elk Grove Florin Rd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	408	393	136	101	441	81	92	569	79	147	917	439
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	425	409	42	105	459	14	96	593	20	153	955	290
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	521	1028	460	187	685	306	183	980	438	233	1482	461
Arrive On Green	0.15	0.29	0.29	0.05	0.20	0.20	0.05	0.28	0.28	0.07	0.29	0.29
Sat Flow, veh/h	3408	3505	1566	3408	3505	1568	3408	3505	1568	3408	5036	1566
Grp Volume(v), veh/h	425	409	42	105	459	14	96	593	20	153	955	290
Grp Sat Flow(s),veh/h/ln	1704	1752	1566	1704	1752	1568	1704	1752	1568	1704	1679	1566
Q Serve(g_s), s	10.0	7.7	1.6	2.5	10.1	0.6	2.3	12.2	0.8	3.6	13.7	13.3
Cycle Q Clear(g_c), s	10.0	7.7	1.6	2.5	10.1	0.6	2.3	12.2	0.8	3.6	13.7	13.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	521	1028	460	187	685	306	183	980	438	233	1482	461
V/C Ratio(X)	0.82	0.40	0.09	0.56	0.67	0.05	0.52	0.61	0.05	0.66	0.64	0.63
Avail Cap(c_a), veh/h	1027	2112	944	1027	2112	945	1027	2112	945	1027	3035	944
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.0	23.4	21.3	38.2	30.9	27.1	38.2	25.9	21.8	37.7	25.5	25.4
Incr Delay (d2), s/veh	1.2	0.1	0.0	1.0	0.4	0.0	0.9	0.2	0.0	1.2	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	3.8	0.7	1.2	4.9	0.3	1.1	5.9	0.3	1.7	6.4	5.8
LnGrp Delay(d),s/veh	35.2	23.5	21.3	39.2	31.3	27.1	39.1	26.2	21.8	38.9	25.7	25.9
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		876			578			709			1398	
Approach Delay, s/veh		29.1			32.7			27.8			27.2	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	30.7	19.0	22.5	12.0	29.5	10.9	30.6				
Change Period (Y+Rc), s	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3				
Max Green Setting (Gmax), s	25.0	50.0	25.0	50.0	25.0	50.0	25.0	50.0				
Max Q Clear Time (g_c+I1), s	4.3	15.7	12.0	12.1	5.6	14.2	4.5	9.7				
Green Ext Time (p_c), s	0.1	8.6	0.7	3.9	0.2	8.7	0.1	3.9				
Intersection Summary												
HCM 2010 Ctrl Delay			28.7									
HCM 2010 LOS			C									

HCM 2010 AWSC
 13: Waterman Rd & Sheldon Rd

Timing Plan: PM Peak Hour

Intersection												
Intersection Delay, s/veh	72.8											
Intersection LOS	F											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	116	253	178	0	19	348	9	0	110	233	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	123	269	189	0	20	370	10	0	117	248	21
Number of Lanes	0	0	1	1	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	60	78.9	78.6
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	30%	31%	0%	5%	2%
Vol Thru, %	64%	69%	0%	93%	66%
Vol Right, %	6%	0%	100%	2%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	363	369	178	376	522
LT Vol	110	116	0	19	11
Through Vol	233	253	0	348	345
RT Vol	20	0	178	9	166
Lane Flow Rate	386	393	189	400	555
Geometry Grp	2	7	7	5	2
Degree of Util (X)	1	1	0.476	1	1
Departure Headway (Hd)	9.673	9.905	9.048	9.741	9.459
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	378	369	401	376	389
Service Time	7.673	7.605	6.748	7.741	7.459
HCM Lane V/C Ratio	1.021	1.065	0.471	1.064	1.427
HCM Control Delay	78.6	79.4	19.7	78.9	77.7
HCM Lane LOS	F	F	C	F	F
HCM 95th-tile Q	11.8	11.7	2.5	11.8	11.9

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	345	166
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	3	3	3	3
Mvmt Flow	0	12	367	177
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach NB

Opposing Lanes 1

Conflicting Approach Left WB

Conflicting Lanes Left 1

Conflicting Approach Right EB

Conflicting Lanes Right 2

HCM Control Delay 77.7

HCM LOS F

Lane

HCM 2010 AWSC
 14: Bradshaw Rd & Sheldon Rd

Timing Plan: PM Peak Hour

Intersection												
Intersection Delay, s/veh	51.3											
Intersection LOS	F											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	77	172	33	0	86	249	17	0	23	299	37
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	79	176	34	0	88	254	17	0	23	305	38
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	30.6	44.4	44.6
HCM LOS	D	E	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	27%	24%	2%
Vol Thru, %	83%	61%	71%	80%
Vol Right, %	10%	12%	5%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	359	282	352	509
LT Vol	23	77	86	10
Through Vol	299	172	249	408
RT Vol	37	33	17	91
Lane Flow Rate	366	288	359	519
Geometry Grp	1	1	1	1
Degree of Util (X)	0.855	0.705	0.85	1
Departure Headway (Hd)	8.398	8.824	8.521	8.262
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	429	409	424	441
Service Time	6.472	6.903	6.59	6.262
HCM Lane V/C Ratio	0.853	0.704	0.847	1.177
HCM Control Delay	44.6	30.6	44.4	72.2
HCM Lane LOS	E	D	E	F
HCM 95th-tile Q	8.4	5.3	8.3	12.8

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	10	408	91
Peak Hour Factor	0.98	0.98	0.98	0.98
Heavy Vehicles, %	3	3	3	3
Mvmt Flow	0	10	416	93
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	72.2
HCM LOS	F

Lane

HCM 2010 AWSC
 15: Bader Rd & Sheldon Rd

Timing Plan: PM Peak Hour

Intersection												
Intersection Delay, s/veh	14.4											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	55	148	25	0	51	259	22	1	18	105	23
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	57	153	26	0	53	267	23	1	19	108	24
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	13	15.9	11.6
HCM LOS	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	24%	15%	10%
Vol Thru, %	72%	65%	78%	65%
Vol Right, %	16%	11%	7%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	147	228	332	312
LT Vol	18	55	51	31
Through Vol	106	148	259	204
RT Vol	23	25	22	77
Lane Flow Rate	152	235	342	322
Geometry Grp	1	1	1	1
Degree of Util (X)	0.267	0.391	0.552	0.519
Departure Headway (Hd)	6.333	6.101	5.801	5.809
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	571	595	616	614
Service Time	4.333	4.101	3.899	3.908
HCM Lane V/C Ratio	0.266	0.395	0.555	0.524
HCM Control Delay	11.6	13	15.9	15.1
HCM Lane LOS	B	B	C	C
HCM 95th-tile Q	1.1	1.8	3.4	3

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	31	204	77
Peak Hour Factor	0.97	0.97	0.97	0.97
Heavy Vehicles, %	3	3	3	3
Mvmt Flow	0	32	210	79
Number of Lanes	0	0	1	0




















Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	15.1
HCM LOS	C

Lane

























HCM 2010 Signalized Intersection Summary
 16: Grant Line Rd & Sheldon Rd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	37	0	273	0	0	0	145	461	0	0	811	131
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900	0	1863	0	1863	1863	0	0	1881	1900
Adj Flow Rate, veh/h	38	0	70	0	0	0	148	470	0	0	828	0
Adj No. of Lanes	1	0	1	0	1	0	1	1	0	0	1	1
Peak Hour Factor	0.98	0.92	0.98	0.92	0.92	0.92	0.98	0.98	0.92	0.92	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	2	0	2	2	0	0	1	0
Cap, veh/h	72	0	0	0	3	0	205	1461	0	0	1105	948
Arrive On Green	0.04	0.00	0.00	0.00	0.00	0.00	0.12	0.78	0.00	0.00	0.59	0.00
Sat Flow, veh/h	1810	38		0	-83824	0	1774	1863	0	0	1881	1615
Grp Volume(v), veh/h	38	28.7		0	0	0	148	470	0	0	828	0
Grp Sat Flow(s),veh/h/ln	1810	C		0	1863	0	1774	1863	0	0	1881	1615
Q Serve(g_s), s	1.2			0.0	0.0	0.0	4.5	4.1	0.0	0.0	18.3	0.0
Cycle Q Clear(g_c), s	1.2			0.0	0.0	0.0	4.5	4.1	0.0	0.0	18.3	0.0
Prop In Lane	1.00			0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	72			0	3	0	205	1461	0	0	1105	948
V/C Ratio(X)	0.53			0.00	0.00	0.00	0.72	0.32	0.00	0.00	0.75	0.00
Avail Cap(c_a), veh/h	803			0	595	0	1260	2976	0	0	3005	2580
HCM Platoon Ratio	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00			0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	26.5			0.0	0.0	0.0	24.0	1.7	0.0	0.0	8.6	0.0
Incr Delay (d2), s/veh	2.2			0.0	0.0	0.0	6.7	0.1	0.0	0.0	1.0	0.0
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6			0.0	0.0	0.0	2.6	2.0	0.0	0.0	9.5	0.0
LnGrp Delay(d),s/veh	28.7			0.0	0.0	0.0	30.7	1.9	0.0	0.0	9.6	0.0
LnGrp LOS	C						C	A			A	
Approach Vol, veh/h					0			618			828	
Approach Delay, s/veh					0.0			8.8			9.6	
Approach LOS								A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4		6						
Phs Duration (G+Y+Rc), s	11.1	38.4	6.8	0.0		49.5						
Change Period (Y+Rc), s	4.6	5.3	4.6	4.5		5.3						
Max Green Setting (Gmax), s	40.0	90.0	25.0	18.0		90.0						
Max Q Clear Time (g_c+I1), s	6.5	20.3	3.2	0.0		6.1						
Green Ext Time (p_c), s	0.7	12.8	0.0	0.0		12.9						
Intersection Summary												
HCM 2010 Ctrl Delay			9.8									
HCM 2010 LOS			A									

























HCM 2010 Signalized Intersection Summary
 17: Franklin Blvd & Dwight Rd/Big Horn Blvd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	45	15	35	315	60	190	80	615	275	575	1235	95
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	49	16	0	342	65	20	87	668	104	625	1342	67
Adj No. of Lanes	2	2	1	2	1	1	1	3	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	110	386	173	402	361	297	109	2107	642	666	1934	837
Arrive On Green	0.03	0.11	0.00	0.12	0.20	0.20	0.06	0.42	0.42	0.20	0.55	0.55
Sat Flow, veh/h	3408	3505	1568	3408	1845	1517	1757	5036	1534	3408	3505	1517
Grp Volume(v), veh/h	49	16	0	342	65	20	87	668	104	625	1342	67
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1845	1517	1757	1679	1534	1704	1752	1517
Q Serve(g_s), s	1.8	0.5	0.0	12.6	3.8	1.4	6.3	11.4	5.4	23.1	35.6	2.6
Cycle Q Clear(g_c), s	1.8	0.5	0.0	12.6	3.8	1.4	6.3	11.4	5.4	23.1	35.6	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	386	173	402	361	297	109	2107	642	666	1934	837
V/C Ratio(X)	0.45	0.04	0.00	0.85	0.18	0.07	0.80	0.32	0.16	0.94	0.69	0.08
Avail Cap(c_a), veh/h	666	1096	490	666	577	474	343	2756	840	666	1934	837
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.8	50.9	0.0	55.3	42.9	41.9	59.2	24.9	23.2	50.7	20.8	13.4
Incr Delay (d2), s/veh	1.1	0.0	0.0	2.6	0.1	0.0	4.9	0.0	0.0	20.8	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.3	0.0	6.1	1.9	0.6	3.2	5.3	2.3	12.8	17.4	1.1
LnGrp Delay(d),s/veh	61.8	50.9	0.0	57.9	42.9	41.9	64.1	25.0	23.2	71.5	21.7	13.5
LnGrp LOS	E	D		E	D	D	E	C	C	E	C	B
Approach Vol, veh/h		65			427			859			2034	
Approach Delay, s/veh		59.1			54.9			28.7			36.8	
Approach LOS		E			D			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	29.6	59.0	19.7	19.6	12.5	76.1	8.7	30.6				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	25.1	13.4	14.6	2.5	8.3	37.6	3.8	5.8				
Green Ext Time (p_c), s	0.0	40.2	0.5	0.8	0.1	26.7	0.1	0.7				
Intersection Summary												
HCM 2010 Ctrl Delay			37.4									
HCM 2010 LOS			D									






















HCM 2010 Signalized Intersection Summary
 18: Bruceville Rd & Big Horn Blvd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	275	460	200	140	815	225	250	400	200	350	775	50
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	299	500	26	152	886	129	272	435	72	380	842	50
Adj No. of Lanes	2	2	1	1	2	1	2	2	1	2	2	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	360	582	251	179	570	245	334	1528	669	435	1563	93
Arrive On Green	0.11	0.17	0.17	0.10	0.16	0.16	0.10	0.44	0.44	0.17	0.62	0.62
Sat Flow, veh/h	3408	3505	1511	1757	3505	1510	3408	3505	1535	3408	3358	199
Grp Volume(v), veh/h	299	500	26	152	886	129	272	435	72	380	439	453
Grp Sat Flow(s),veh/h/ln	1704	1752	1511	1757	1752	1510	1704	1752	1535	1704	1752	1805
Q Serve(g_s), s	10.3	16.6	1.8	10.2	19.5	9.4	9.4	9.6	3.3	13.0	17.2	17.2
Cycle Q Clear(g_c), s	10.3	16.6	1.8	10.2	19.5	9.4	9.4	9.6	3.3	13.0	17.2	17.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	360	582	251	179	570	245	334	1528	669	435	816	840
V/C Ratio(X)	0.83	0.86	0.10	0.85	1.56	0.53	0.81	0.28	0.11	0.87	0.54	0.54
Avail Cap(c_a), veh/h	494	582	251	255	570	245	494	1528	669	494	816	840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.65	0.65	0.65
Uniform Delay (d), s/veh	52.6	48.7	42.4	53.0	50.2	46.0	53.1	21.8	20.0	48.9	15.5	15.5
Incr Delay (d2), s/veh	6.2	11.7	0.1	12.2	258.6	1.0	3.9	0.5	0.3	9.3	1.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	9.0	0.7	5.5	29.9	4.0	4.6	4.8	1.5	6.7	8.5	8.8
LnGrp Delay(d),s/veh	58.8	60.4	42.5	65.2	308.8	47.0	57.0	22.3	20.4	58.1	17.2	17.1
LnGrp LOS	E	E	D	E	F	D	E	C	C	E	B	B
Approach Vol, veh/h		825			1167			779			1272	
Approach Delay, s/veh		59.2			248.2			34.2			29.4	
Approach LOS		E			F			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	61.4	17.3	25.0	19.9	57.8	16.8	25.4				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	17.4	45.5	17.4	19.5	17.4	45.5	17.4	19.5				
Max Q Clear Time (g_c+I1), s	11.4	19.2	12.3	21.5	15.0	11.6	12.2	18.6				
Green Ext Time (p_c), s	0.4	19.4	0.4	0.0	0.3	23.4	0.1	0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			99.6									
HCM 2010 LOS			F									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
 19: Grant Line Rd & Wilton Rd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	8	12	152	1	172	12	438	178	363	702	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	1863	1900	1900	1873	1900	1863	1881	1900
Adj Flow Rate, veh/h	4	8	1	157	1	23	12	452	173	374	724	1
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	1	0	0	0	2	2	2	1	1
Cap, veh/h	9	48	6	185	8	194	25	601	230	403	1275	2
Arrive On Green	0.01	0.03	0.03	0.10	0.13	0.13	0.01	0.47	0.47	0.23	0.68	0.68
Sat Flow, veh/h	1810	1650	206	1792	66	1527	1810	1291	494	1774	1878	3
Grp Volume(v), veh/h	4	0	9	157	0	24	12	0	625	374	0	725
Grp Sat Flow(s),veh/h/ln	1810	0	1856	1792	0	1593	1810	0	1785	1774	0	1881
Q Serve(g_s), s	0.3	0.0	0.6	10.3	0.0	1.6	0.8	0.0	34.5	24.8	0.0	24.2
Cycle Q Clear(g_c), s	0.3	0.0	0.6	10.3	0.0	1.6	0.8	0.0	34.5	24.8	0.0	24.2
Prop In Lane	1.00		0.11	1.00		0.96	1.00		0.28	1.00		0.00
Lane Grp Cap(c), veh/h	9	0	54	185	0	203	25	0	831	403	0	1277
V/C Ratio(X)	0.43	0.00	0.17	0.85	0.00	0.12	0.48	0.00	0.75	0.93	0.00	0.57
Avail Cap(c_a), veh/h	234	0	240	231	0	203	234	0	831	451	0	1277
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.85	0.00	0.85	0.67	0.00	0.67
Uniform Delay (d), s/veh	59.5	0.0	56.8	52.9	0.0	46.4	58.8	0.0	26.3	45.4	0.0	10.1
Incr Delay (d2), s/veh	27.6	0.0	1.4	20.9	0.0	0.3	11.8	0.0	5.3	18.2	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	6.2	0.0	0.7	0.5	0.0	18.2	14.2	0.0	12.9
LnGrp Delay(d),s/veh	87.1	0.0	58.3	73.8	0.0	46.7	70.6	0.0	31.7	63.6	0.0	11.3
LnGrp LOS	F		E	E		D	E		C	E		B
Approach Vol, veh/h		13			181			637			1099	
Approach Delay, s/veh		67.1			70.2			32.4			29.1	
Approach LOS		E			E			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	87.5	16.9	9.5	31.7	61.9	5.1	21.3				
Change Period (Y+Rc), s	4.5	6.0	4.5	* 6	4.5	6.0	4.5	6.0				
Max Green Setting (Gmax), s	15.5	54.0	15.5	* 16	30.5	39.0	15.5	14.0				
Max Q Clear Time (g_c+I1), s	2.8	26.2	12.3	2.6	26.8	36.5	2.3	3.6				
Green Ext Time (p_c), s	0.0	11.0	0.1	0.0	0.4	1.8	0.0	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			34.3									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
 20: Harbour Point Dr & Laguna Blvd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	85	1690	380	295	605	90	135	30	285	155	65	165
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	92	1837	328	321	658	52	147	33	0	168	71	12
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	143	2605	795	381	2957	903	205	334	150	196	271	221
Arrive On Green	0.04	0.52	0.52	0.11	0.59	0.59	0.06	0.10	0.00	0.11	0.15	0.15
Sat Flow, veh/h	3408	5036	1537	3408	5036	1538	3408	3505	1568	1757	1845	1506
Grp Volume(v), veh/h	92	1837	328	321	658	52	147	33	0	168	71	12
Grp Sat Flow(s),veh/h/ln	1704	1679	1537	1704	1679	1538	1704	1752	1568	1757	1845	1506
Q Serve(g_s), s	3.1	32.7	15.4	10.9	7.3	1.7	5.0	1.0	0.0	11.1	4.0	0.8
Cycle Q Clear(g_c), s	3.1	32.7	15.4	10.9	7.3	1.7	5.0	1.0	0.0	11.1	4.0	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	2605	795	381	2957	903	205	334	150	196	271	221
V/C Ratio(X)	0.64	0.71	0.41	0.84	0.22	0.06	0.72	0.10	0.00	0.86	0.26	0.05
Avail Cap(c_a), veh/h	723	2991	913	723	2991	914	1070	803	359	552	423	345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.6	21.6	17.5	51.3	11.6	10.4	54.4	48.7	0.0	51.4	44.6	43.2
Incr Delay (d2), s/veh	1.8	0.6	0.3	2.0	0.0	0.0	1.8	0.1	0.0	4.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	15.3	6.6	5.2	3.4	0.7	2.4	0.5	0.0	5.6	2.1	0.3
LnGrp Delay(d),s/veh	57.4	22.3	17.8	53.3	11.6	10.4	56.2	48.8	0.0	55.5	44.8	43.3
LnGrp LOS	E	C	B	D	B	B	E	D		E	D	D
Approach Vol, veh/h		2257			1031			180			251	
Approach Delay, s/veh		23.0			24.5			54.8			51.9	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	74.7	11.7	21.9	17.8	66.5	17.8	15.8				
Change Period (Y+Rc), s	4.6	5.5	4.6	4.6	4.6	5.5	4.6	4.6				
Max Green Setting (Gmax), s	25.0	70.0	37.0	27.0	25.0	70.0	37.0	27.0				
Max Q Clear Time (g_c+I1), s	5.1	9.3	7.0	6.0	12.9	34.7	13.1	3.0				
Green Ext Time (p_c), s	0.1	37.9	0.2	0.3	0.3	26.3	0.1	0.3				
Intersection Summary												
HCM 2010 Ctrl Delay			26.9									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
 21: Babson Dr/Dwight Rd & Laguna Blvd

























Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	2000	75	260	950	100	40	10	220	120	40	60
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.95	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	43	2174	42	283	1033	74	43	11	1	130	43	0
Adj No. of Lanes	2	3	1	2	3	1	1	1	0	1	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	108	2743	837	342	3089	944	56	175	16	156	570	255
Arrive On Green	0.03	0.54	0.54	0.10	0.61	0.61	0.03	0.11	0.11	0.09	0.16	0.00
Sat Flow, veh/h	3408	5036	1538	3408	5036	1539	1757	1658	151	1757	3505	1568
Grp Volume(v), veh/h	43	2174	42	283	1033	74	43	0	12	130	43	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1538	1704	1679	1539	1757	0	1809	1757	1752	1568
Q Serve(g_s), s	1.5	41.6	1.5	9.8	12.0	2.3	2.9	0.0	0.7	8.7	1.2	0.0
Cycle Q Clear(g_c), s	1.5	41.6	1.5	9.8	12.0	2.3	2.9	0.0	0.7	8.7	1.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	108	2743	837	342	3089	944	56	0	191	156	570	255
V/C Ratio(X)	0.40	0.79	0.05	0.83	0.33	0.08	0.77	0.00	0.06	0.83	0.08	0.00
Avail Cap(c_a), veh/h	709	2934	896	709	3089	944	366	0	602	512	1167	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.0	21.9	12.8	53.0	11.3	9.4	57.7	0.0	48.4	53.8	42.6	0.0
Incr Delay (d2), s/veh	0.9	1.5	0.0	2.0	0.1	0.0	8.1	0.0	0.1	4.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	19.5	0.7	4.7	5.6	1.0	1.5	0.0	0.4	4.4	0.6	0.0
LnGrp Delay(d),s/veh	57.9	23.4	12.8	55.0	11.4	9.5	65.8	0.0	48.5	58.1	42.7	0.0
LnGrp LOS	E	C	B	D	B	A	E		D	E	D	
Approach Vol, veh/h		2259			1390			55				173
Approach Delay, s/veh		23.8			20.1			62.1				54.3
Approach LOS		C			C			E				D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	79.5	8.3	24.0	16.6	71.2	15.2	17.2				
Change Period (Y+Rc), s	4.5	5.8	4.5	4.5	4.5	5.8	4.5	4.5				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	35.0	40.0				
Max Q Clear Time (g_c+I1), s	3.5	14.0	4.9	3.2	11.8	43.6	10.7	2.7				
Green Ext Time (p_c), s	0.0	44.8	0.0	0.1	0.3	21.9	0.1	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			24.4									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

























22: Franklin Blvd & Laguna Blvd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	595	1310	245	285	755	125	335	385	186	360	630	340
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	647	1424	183	310	821	71	364	418	29	391	685	146
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	491	2062	628	352	1857	565	405	1077	325	431	786	341
Arrive On Green	0.14	0.41	0.41	0.10	0.37	0.37	0.12	0.21	0.21	0.13	0.22	0.22
Sat Flow, veh/h	3408	5036	1534	3408	5036	1532	3408	5036	1520	3408	3505	1521
Grp Volume(v), veh/h	647	1424	183	310	821	71	364	418	29	391	685	146
Grp Sat Flow(s),veh/h/ln	1704	1679	1534	1704	1679	1532	1704	1679	1520	1704	1752	1521
Q Serve(g_s), s	25.0	40.4	13.9	15.6	21.3	5.3	18.3	12.3	2.7	19.6	32.7	14.3
Cycle Q Clear(g_c), s	25.0	40.4	13.9	15.6	21.3	5.3	18.3	12.3	2.7	19.6	32.7	14.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	491	2062	628	352	1857	565	405	1077	325	431	786	341
V/C Ratio(X)	1.32	0.69	0.29	0.88	0.44	0.13	0.90	0.39	0.09	0.91	0.87	0.43
Avail Cap(c_a), veh/h	491	2062	628	491	2032	618	491	1161	350	491	808	351
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.3	42.2	34.4	76.7	41.3	36.3	75.4	58.5	54.7	74.8	64.9	57.7
Incr Delay (d2), s/veh	156.8	0.8	0.1	10.2	0.1	0.0	15.5	0.1	0.0	18.0	9.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.4	18.9	5.9	7.9	9.9	2.3	9.5	5.7	1.1	10.4	16.9	6.1
LnGrp Delay(d),s/veh	231.1	43.0	34.4	86.9	41.4	36.3	90.9	58.6	54.7	92.8	74.4	58.1
LnGrp LOS	F	D	C	F	D	D	F	E	D	F	E	E
Approach Vol, veh/h		2254			1202			811			1222	
Approach Delay, s/veh		96.3			52.8			72.9			78.3	
Approach LOS		F			D			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.1	44.9	24.4	77.1	28.9	43.1	31.5	70.0				
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0	7.0	* 6	6.5	6.0				
Max Green Setting (Gmax), s	25.0	40.0	25.0	70.0	25.0	* 40	25.0	70.0				
Max Q Clear Time (g_c+I1), s	20.3	34.7	17.6	42.4	21.6	14.3	27.0	23.3				
Green Ext Time (p_c), s	0.3	4.2	0.4	26.1	0.3	15.1	0.0	40.6				
Intersection Summary												
HCM 2010 Ctrl Delay			79.3									
HCM 2010 LOS			E									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												
























HCM 2010 Signalized Intersection Summary
 23: Bruceville Rd & Laguna Blvd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	150	820	260	320	1155	150	170	830	180	130	965	375
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	163	891	157	348	1255	112	185	902	120	141	1049	287
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	227	2020	615	432	2323	708	247	1351	409	200	1381	380
Arrive On Green	0.07	0.40	0.40	0.13	0.46	0.46	0.07	0.27	0.27	0.06	0.25	0.25
Sat Flow, veh/h	3408	5036	1533	3408	5036	1535	3408	5036	1526	3514	5534	1524
Grp Volume(v), veh/h	163	891	157	348	1255	112	185	902	120	141	1049	287
Grp Sat Flow(s),veh/h/ln	1704	1679	1533	1704	1679	1535	1704	1679	1526	1757	1845	1524
Q Serve(g_s), s	7.2	19.7	10.5	15.2	27.4	6.5	8.2	24.5	9.6	6.0	26.9	26.7
Cycle Q Clear(g_c), s	7.2	19.7	10.5	15.2	27.4	6.5	8.2	24.5	9.6	6.0	26.9	26.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	227	2020	615	432	2323	708	247	1351	409	200	1381	380
V/C Ratio(X)	0.72	0.44	0.26	0.80	0.54	0.16	0.75	0.67	0.29	0.70	0.76	0.75
Avail Cap(c_a), veh/h	890	2301	701	890	2323	708	556	1351	409	573	1445	398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.1	33.4	30.6	65.0	29.6	24.0	69.7	50.0	44.5	71.0	53.2	53.1
Incr Delay (d2), s/veh	1.6	0.1	0.1	1.4	0.1	0.0	1.7	1.0	0.1	1.7	2.0	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	9.2	4.5	7.2	12.7	2.8	3.9	11.5	4.1	3.0	14.0	11.9
LnGrp Delay(d),s/veh	71.7	33.4	30.7	66.4	29.7	24.0	71.4	51.0	44.7	72.7	55.2	59.8
LnGrp LOS	E	C	C	E	C	C	E	D	D	E	E	E
Approach Vol, veh/h		1211			1715			1207			1477	
Approach Delay, s/veh		38.2			36.8			53.5			57.8	
Approach LOS		D			D			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.7	76.2	17.1	44.2	24.9	66.9	14.2	47.1				
Change Period (Y+Rc), s	5.5	5.5	6.0	* 6	5.5	5.5	5.5	6.0				
Max Green Setting (Gmax), s	40.0	70.0	25.0	* 40	40.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	9.2	29.4	10.2	28.9	17.2	21.7	8.0	26.5				
Green Ext Time (p_c), s	1.0	35.0	0.9	9.4	2.2	39.7	0.7	12.3				
Intersection Summary												
HCM 2010 Ctrl Delay			46.2									
HCM 2010 LOS			D									
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
 24: Big Horn Blvd & Laguna Blvd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	200	880	95	350	1400	275	65	855	220	230	805	150
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	217	957	92	380	1522	186	71	929	169	250	875	109
Adj No. of Lanes	2	4	0	2	4	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	264	2396	228	426	2868	694	110	893	388	297	1085	473
Arrive On Green	0.08	0.40	0.40	0.13	0.45	0.45	0.03	0.25	0.25	0.09	0.31	0.31
Sat Flow, veh/h	3408	5926	564	3408	6346	1535	3408	3505	1524	3408	3505	1529
Grp Volume(v), veh/h	217	767	282	380	1522	186	71	929	169	250	875	109
Grp Sat Flow(s),veh/h/ln	1704	1586	1730	1704	1586	1535	1704	1752	1524	1704	1752	1529
Q Serve(g_s), s	9.8	18.0	18.2	17.2	27.1	11.9	3.2	40.0	14.6	11.3	36.1	8.3
Cycle Q Clear(g_c), s	9.8	18.0	18.2	17.2	27.1	11.9	3.2	40.0	14.6	11.3	36.1	8.3
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	1924	700	426	2868	694	110	893	388	297	1085	473
V/C Ratio(X)	0.82	0.40	0.40	0.89	0.53	0.27	0.64	1.04	0.44	0.84	0.81	0.23
Avail Cap(c_a), veh/h	543	2122	771	543	2868	694	543	893	388	543	1085	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.4	33.2	33.3	67.6	31.0	26.8	75.1	58.5	49.0	70.6	49.9	40.3
Incr Delay (d2), s/veh	2.5	0.0	0.1	12.4	0.1	0.1	2.3	41.1	0.3	2.5	4.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	7.9	8.7	8.9	11.9	5.0	1.6	24.4	6.2	5.4	18.1	3.5
LnGrp Delay(d),s/veh	73.8	33.3	33.4	80.0	31.1	26.9	77.4	99.6	49.3	73.1	54.1	40.4
LnGrp LOS	E	C	C	F	C	C	E	F	D	E	D	D
Approach Vol, veh/h		1266			2088			1169			1234	
Approach Delay, s/veh		40.3			39.6			91.0			56.7	
Approach LOS		D			D			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	76.5	9.7	54.1	24.2	69.0	18.3	45.5				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	11.8	29.1	5.2	38.1	19.2	20.2	13.3	42.0				
Green Ext Time (p_c), s	0.3	37.4	0.1	1.8	0.4	43.2	0.4	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			53.9									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

25: Laguna Springs Dr/W Stockton Blvd & Laguna Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.2	0.3	0.4	0.0	0.0	0.0	2.9	1.0	1.3	3.1	0.2	0.3
Total Delay (hr)	0.7	2.1	0.2	1.0	2.3	0.0	1.3	0.3	0.7	0.4	1.3	1.1
Total Del/Veh (s)	46.2	25.2	26.4	53.3	20.1	4.1	56.3	47.1	18.3	50.1	70.2	51.4
Stop Delay (hr)	0.6	1.4	0.1	0.9	1.1	0.0	1.2	0.2	0.6	0.4	1.1	1.0
Stop Del/Veh (s)	41.4	17.1	19.4	47.1	9.7	2.3	50.3	41.1	15.5	45.7	62.8	47.3
Total Stops	45	168	18	55	161	9	91	18	95	27	67	70
Stop/Veh	0.85	0.55	0.69	0.82	0.40	0.29	1.06	0.86	0.70	0.87	1.03	0.92
Travel Dist (mi)	6.8	42.1	3.6	8.6	55.5	4.3	11.0	2.7	17.4	4.2	8.5	9.7
Travel Time (hr)	0.9	3.1	0.3	1.3	3.7	0.2	1.8	0.4	1.4	0.6	1.5	1.4
Avg Speed (mph)	8	14	12	7	15	23	6	8	13	7	6	7
Fuel Used (gal)	0.1	0.7	0.1	0.2	1.2	0.1	0.2	0.0	0.3	0.1	0.2	0.2
Fuel Eff. (mpg)	57.9	58.9	63.5	44.8	44.5	49.1	50.6	55.5	63.0	47.9	47.7	52.9
HC Emissions (g)	4	27	2	7	43	4	7	2	9	3	6	6
CO Emissions (g)	178	1043	78	263	1491	203	249	59	334	125	212	224
NOx Emissions (g)	11	80	6	22	147	12	19	4	26	9	15	17
Vehicles Entered	47	290	24	60	393	30	83	20	132	30	62	71
Vehicles Exited	48	295	25	61	398	30	82	19	128	30	56	67
Hourly Exit Rate	192	1180	100	244	1592	120	328	76	512	120	224	268
Input Volume	190	1158	98	245	1603	120	326	87	516	120	250	272
% of Volume	101	102	102	100	99	100	101	87	99	100	90	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	4	12	1	5	15	1	7	1	5	2	6	6

25: Laguna Springs Dr/W Stockton Blvd & Laguna Blvd Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.6
Total Delay (hr)	11.4
Total Del/Veh (s)	31.5
Stop Delay (hr)	8.7
Stop Del/Veh (s)	24.2
Total Stops	824
Stop/Veh	0.63
Travel Dist (mi)	174.3
Travel Time (hr)	16.6
Avg Speed (mph)	11
Fuel Used (gal)	3.4
Fuel Eff. (mpg)	51.2
HC Emissions (g)	121
CO Emissions (g)	4459
NOx Emissions (g)	368
Vehicles Entered	1242
Vehicles Exited	1239
Hourly Exit Rate	4956
Input Volume	4985
% of Volume	99
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	233
Occupancy (veh)	65

26: Laguna Blvd & SR 99 SB Ramps Performance by movement

Movement	EBT	EBR	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.7	1.7	0.3
Total Delay (hr)	2.3	0.1	1.8	0.2	0.9	1.7	7.0
Total Del/Veh (s)	19.2	6.1	19.8	7.1	26.9	32.9	20.6
Stop Delay (hr)	1.5	0.0	0.9	0.0	0.7	1.2	4.3
Stop Del/Veh (s)	12.2	0.2	10.0	0.1	21.7	23.9	12.8
Total Stops	171	0	155	0	76	138	540
Stop/Veh	0.40	0.00	0.48	0.00	0.63	0.73	0.44
Travel Dist (mi)	62.3	5.4	61.2	19.2	38.3	58.9	245.4
Travel Time (hr)	3.9	0.2	3.3	0.7	2.3	3.9	14.4
Avg Speed (mph)	16	26	19	26	17	15	17
Fuel Used (gal)	1.5	0.2	1.2	0.4	0.7	1.0	4.8
Fuel Eff. (mpg)	41.1	33.6	53.1	54.7	56.6	60.2	50.7
HC Emissions (g)	61	8	43	12	13	22	160
CO Emissions (g)	2480	366	1580	483	323	477	5709
NOx Emissions (g)	195	25	136	40	39	61	497
Vehicles Entered	413	40	309	113	114	177	1166
Vehicles Exited	411	40	310	115	114	173	1163
Hourly Exit Rate	1644	160	1240	460	456	692	4652
Input Volume	1631	163	1262	489	462	707	4714
% of Volume	101	98	98	94	99	98	99
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							234
Occupancy (veh)	16	1	13	3	9	15	57

27: SR 99 NB Off & Bond Rd Performance by movement

Movement	EBT	EBR	WBT	WBR	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.8	0.6	0.1
Total Delay (hr)	1.3	0.6	1.6	0.2	1.4	0.9	6.0
Total Del/Veh (s)	16.4	8.9	16.5	8.4	44.8	51.1	18.8
Stop Delay (hr)	0.7	0.0	0.7	0.0	1.1	0.8	3.3
Stop Del/Veh (s)	8.9	0.1	7.0	0.1	37.5	43.3	10.3
Total Stops	132	6	126	0	93	56	413
Stop/Veh	0.47	0.02	0.37	0.00	0.85	0.85	0.36
Travel Dist (mi)	55.9	42.5	65.4	19.2	33.5	20.1	236.6
Travel Time (hr)	2.6	1.7	3.1	0.7	2.6	1.7	12.4
Avg Speed (mph)	21	25	21	27	13	12	19
Fuel Used (gal)	1.1	0.8	1.4	0.5	0.6	0.4	4.7
Fuel Eff. (mpg)	51.8	54.3	48.3	37.1	56.4	53.1	50.3
HC Emissions (g)	36	28	50	20	13	7	153
CO Emissions (g)	1513	972	1903	855	281	137	5662
NOx Emissions (g)	119	89	165	65	33	17	488
Vehicles Entered	279	246	337	105	101	61	1129
Vehicles Exited	267	245	320	101	101	61	1095
Hourly Exit Rate	1068	980	1280	404	404	244	4380
Input Volume	1115	978	1342	408	408	245	4496
% of Volume	96	100	95	99	99	100	97
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							234
Occupancy (veh)	11	7	12	3	10	7	49

28: E Stockton Blvd & Bond Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.4	3.7	0.5	0.3	0.2
Total Delay (hr)	0.4	2.3	0.0	0.2	3.5	0.0	0.5	0.1	0.1	0.7	0.4	0.1
Total Del/Veh (s)	54.8	26.3	4.0	53.5	31.8	7.6	54.5	56.4	19.3	57.5	62.8	19.2
Stop Delay (hr)	0.4	1.3	0.0	0.2	2.4	0.0	0.4	0.1	0.1	0.6	0.3	0.1
Stop Del/Veh (s)	49.6	15.0	2.7	48.2	22.3	3.3	50.1	48.7	17.1	51.4	53.7	17.6
Total Stops	22	151	7	10	218	3	27	7	14	39	19	23
Stop/Veh	0.85	0.48	0.41	0.83	0.55	0.50	0.87	0.88	0.88	0.95	0.90	0.85
Travel Dist (mi)	4.3	53.4	3.0	1.3	48.3	0.8	2.4	0.6	1.3	5.1	2.7	3.4
Travel Time (hr)	0.5	3.6	0.1	0.2	4.6	0.0	0.6	0.1	0.2	0.8	0.4	0.3
Avg Speed (mph)	8	15	27	6	11	21	4	4	9	6	6	13
Fuel Used (gal)	0.1	1.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1
Fuel Eff. (mpg)	51.9	50.8	63.2	62.7	47.2	50.3	45.1	40.2	54.7	49.0	50.5	63.6
HC Emissions (g)	3	34	2	1	37	1	2	0	1	3	1	2
CO Emissions (g)	137	1222	91	27	1263	29	58	13	40	144	68	85
NOx Emissions (g)	9	110	6	2	113	2	5	1	4	9	4	6
Vehicles Entered	23	289	16	10	368	6	31	8	16	39	21	26
Vehicles Exited	25	303	17	11	388	6	29	8	16	37	18	26
Hourly Exit Rate	100	1212	68	44	1552	24	116	32	64	148	72	104
Input Volume	92	1197	71	43	1517	27	125	33	71	163	82	109
% of Volume	109	101	96	102	102	89	93	97	90	91	88	95
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	2	14	0	1	18	0	2	1	1	3	2	1

28: E Stockton Blvd & Bond Rd Performance by movement

























Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	8.2
Total Del/Veh (s)	32.3
Stop Delay (hr)	5.9
Stop Del/Veh (s)	23.3
Total Stops	540
Stop/Veh	0.59
Travel Dist (mi)	126.5
Travel Time (hr)	11.4
Avg Speed (mph)	11
Fuel Used (gal)	2.5
Fuel Eff. (mpg)	49.8
HC Emissions (g)	86
CO Emissions (g)	3177
NOx Emissions (g)	271
Vehicles Entered	853
Vehicles Exited	884
Hourly Exit Rate	3536
Input Volume	3530
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	245
Occupancy (veh)	46

29: Elk Crest Rd & Bond Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.0	0.0	0.0	2.3	1.6	2.5	0.1	0.1	0.1	0.1	0.1	0.9
Total Delay (hr)	0.5	2.4	0.0	0.5	1.5	0.0	0.2	0.1	0.2	0.0	0.0	5.5
Total Del/Veh (s)	75.1	26.3	11.4	63.0	14.1	7.6	54.1	62.6	53.6	53.7	14.1	24.0
Stop Delay (hr)	0.4	1.2	0.0	0.4	0.8	0.0	0.2	0.1	0.2	0.0	0.0	3.4
Stop Del/Veh (s)	65.6	13.0	4.8	58.1	7.3	3.3	52.1	60.4	51.5	51.5	14.0	14.7
Total Stops	24	197	1	22	131	6	11	3	12	2	3	412
Stop/Veh	1.00	0.59	0.50	0.85	0.34	0.43	0.79	1.00	0.86	0.67	1.00	0.50
Travel Dist (mi)	2.8	43.9	0.2	3.0	49.8	1.8	0.5	0.1	0.7	0.1	0.2	103.0
Travel Time (hr)	0.6	3.5	0.0	0.6	2.8	0.1	0.2	0.1	0.2	0.1	0.0	8.2
Avg Speed (mph)	5	13	15	6	19	20	2	2	3	3	8	13
Fuel Used (gal)	0.1	0.9	0.0	0.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Fuel Eff. (mpg)	47.6	47.7	68.2	52.4	56.2	62.5	28.3	44.2	38.8	50.8	76.6	51.6
HC Emissions (g)	2	26	0	2	32	1	1	0	1	0	0	64
CO Emissions (g)	63	857	3	72	1208	34	17	1	15	1	1	2271
NOx Emissions (g)	6	86	0	5	99	4	2	0	1	0	0	204
Vehicles Entered	21	332	2	23	385	14	12	3	13	3	3	811
Vehicles Exited	22	302	2	25	368	13	13	3	14	3	3	768
Hourly Exit Rate	88	1208	8	100	1472	52	52	12	56	12	12	3072
Input Volume	87	1338	5	87	1522	54	54	11	54	11	11	3234
% of Volume	101	90	160	115	97	96	96	109	104	109	109	95
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	1	0	0	0	0	0	0	1
Density (ft/veh)												202
Occupancy (veh)	2	14	0	2	11	0	1	0	1	0	0	32

























HCM 2010 Signalized Intersection Summary
 30: Elk Grove Florin Rd & Bond Rd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	399	881	142	215	760	144	348	518	149	305	712	424
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	420	927	86	226	800	46	366	545	62	321	749	247
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	462	1459	650	271	1251	558	411	928	415	366	882	389
Arrive On Green	0.14	0.42	0.42	0.08	0.36	0.36	0.12	0.26	0.26	0.11	0.25	0.25
Sat Flow, veh/h	3408	3505	1561	3408	3505	1563	3408	3505	1568	3408	3505	1546
Grp Volume(v), veh/h	420	927	86	226	800	46	366	545	62	321	749	247
Grp Sat Flow(s),veh/h/ln	1704	1752	1561	1704	1752	1563	1704	1752	1568	1704	1752	1546
Q Serve(g_s), s	19.8	34.3	5.6	10.7	31.0	3.2	17.3	22.1	4.9	15.2	33.2	23.2
Cycle Q Clear(g_c), s	19.8	34.3	5.6	10.7	31.0	3.2	17.3	22.1	4.9	15.2	33.2	23.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	462	1459	650	271	1251	558	411	928	415	366	882	389
V/C Ratio(X)	0.91	0.64	0.13	0.83	0.64	0.08	0.89	0.59	0.15	0.88	0.85	0.64
Avail Cap(c_a), veh/h	522	1503	669	522	1503	670	522	928	415	522	966	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.6	37.8	29.4	74.1	43.7	34.8	70.7	52.3	46.0	71.8	58.1	54.4
Incr Delay (d2), s/veh	17.5	1.1	0.2	2.6	1.0	0.1	12.8	1.3	0.3	8.8	7.4	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	16.8	2.4	5.1	15.2	1.4	8.9	10.9	2.2	7.6	17.0	10.4
LnGrp Delay(d),s/veh	87.0	38.9	29.6	76.7	44.8	34.9	83.6	53.6	46.2	80.6	65.6	58.1
LnGrp LOS	F	D	C	E	D	C	F	D	D	F	E	E
Approach Vol, veh/h		1433			1072			973			1317	
Approach Delay, s/veh		52.5			51.1			64.4			67.9	
Approach LOS		D			D			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.3	46.6	28.1	64.3	22.1	48.7	18.5	73.9				
Change Period (Y+Rc), s	4.6	5.5	6.0	* 6	4.6	5.5	5.5	6.0				
Max Green Setting (Gmax), s	25.0	45.0	25.0	* 70	25.0	40.0	25.0	70.0				
Max Q Clear Time (g_c+I1), s	19.3	35.2	21.8	33.0	17.2	24.1	12.7	36.3				
Green Ext Time (p_c), s	0.4	5.9	0.3	25.2	0.4	11.6	0.3	23.7				
Intersection Summary												
HCM 2010 Ctrl Delay			58.8									
HCM 2010 LOS			E									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												






























HCM 2010 Signalized Intersection Summary
 31: Waterman Rd & Bond Rd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	56	723	258	47	648	73	215	197	54	136	315	125
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1881	1881	1863	1881	1863	1900
Adj Flow Rate, veh/h	61	786	120	51	704	25	234	214	9	148	342	15
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	2	1	2	0
Cap, veh/h	164	1668	746	150	1654	739	329	610	270	241	514	234
Arrive On Green	0.05	0.46	0.46	0.04	0.46	0.46	0.09	0.17	0.17	0.07	0.15	0.15
Sat Flow, veh/h	3510	3610	1615	3510	3610	1613	3476	3574	1583	3476	3539	1612
Grp Volume(v), veh/h	61	786	120	51	704	25	234	214	9	148	342	15
Grp Sat Flow(s),veh/h/ln	1755	1805	1615	1755	1805	1613	1738	1787	1583	1738	1770	1612
Q Serve(g_s), s	1.3	11.8	3.4	1.1	10.4	0.7	5.2	4.2	0.4	3.3	7.2	0.6
Cycle Q Clear(g_c), s	1.3	11.8	3.4	1.1	10.4	0.7	5.2	4.2	0.4	3.3	7.2	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	1668	746	150	1654	739	329	610	270	241	514	234
V/C Ratio(X)	0.37	0.47	0.16	0.34	0.43	0.03	0.71	0.35	0.03	0.61	0.67	0.06
Avail Cap(c_a), veh/h	1110	3196	1430	1110	3196	1428	1099	1808	801	1099	1790	815
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	14.6	12.4	36.8	14.4	11.8	34.7	28.9	27.4	35.8	32.0	29.2
Incr Delay (d2), s/veh	0.5	0.3	0.1	0.5	0.2	0.0	1.1	0.1	0.0	1.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	6.0	1.5	0.5	5.2	0.3	2.5	2.1	0.2	1.6	3.6	0.3
LnGrp Delay(d),s/veh	37.1	14.9	12.5	37.3	14.7	11.8	35.8	29.1	27.4	36.7	32.5	29.2
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		967			780			457			505	
Approach Delay, s/veh		16.0			16.1			32.5			33.7	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	41.7	12.1	17.0	8.0	42.0	10.1	19.0				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	3.3	12.4	7.2	9.2	3.1	13.8	5.3	6.2				
Green Ext Time (p_c), s	0.1	22.9	0.4	2.1	0.1	22.7	0.2	2.1				
Intersection Summary												
HCM 2010 Ctrl Delay			22.1									
HCM 2010 LOS			C									


















HCM 2010 Signalized Intersection Summary
 32: Bradshaw Rd & Bond Rd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 	 		 	 	
Volume (veh/h)	128	318	78	107	396	36	53	235	50	30	331	178
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	138	342	16	115	426	35	57	253	43	32	356	32
Adj No. of Lanes	2	2	1	1	2	0	2	2	0	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	282	1046	467	149	986	81	183	586	98	121	619	277
Arrive On Green	0.08	0.30	0.30	0.08	0.30	0.30	0.05	0.20	0.20	0.04	0.18	0.18
Sat Flow, veh/h	3408	3505	1566	1757	3281	269	3408	3005	504	3408	3505	1565
Grp Volume(v), veh/h	138	342	16	115	227	234	57	146	150	32	356	32
Grp Sat Flow(s),veh/h/ln	1704	1752	1566	1757	1752	1797	1704	1752	1756	1704	1752	1565
Q Serve(g_s), s	2.0	4.0	0.4	3.4	5.4	5.5	0.8	3.8	3.9	0.5	4.9	0.9
Cycle Q Clear(g_c), s	2.0	4.0	0.4	3.4	5.4	5.5	0.8	3.8	3.9	0.5	4.9	0.9
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	282	1046	467	149	527	540	183	342	342	121	619	277
V/C Ratio(X)	0.49	0.33	0.03	0.77	0.43	0.43	0.31	0.43	0.44	0.26	0.57	0.12
Avail Cap(c_a), veh/h	1629	4690	2096	840	2345	2405	1629	1340	1343	1629	2680	1197
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	14.3	13.0	23.4	14.7	14.7	23.8	18.5	18.5	24.6	19.7	18.1
Incr Delay (d2), s/veh	0.5	0.3	0.0	3.2	0.8	0.8	0.4	0.3	0.3	0.4	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.9	0.2	1.8	2.7	2.8	0.4	1.9	1.9	0.2	2.4	0.4
LnGrp Delay(d),s/veh	23.4	14.5	13.1	26.6	15.5	15.5	24.2	18.8	18.9	25.0	20.0	18.2
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	C	B
Approach Vol, veh/h		496			576			353			420	
Approach Delay, s/veh		17.0			17.7			19.7			20.3	
Approach LOS		B			B			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	21.2	6.5	15.7	9.0	21.1	7.4	14.7				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	4.0	7.5	2.5	5.9	5.4	6.0	2.8	6.9				
Green Ext Time (p_c), s	0.2	8.1	0.0	2.2	0.1	8.1	0.1	2.2				
Intersection Summary												
HCM 2010 Ctrl Delay			18.5									
HCM 2010 LOS			B									





















HCM 2010 Signalized Intersection Summary
 33: Bond Rd & Bader Rd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	246	0	0	311	17	0	0	0	20	0	255
Future Volume (veh/h)	148	246	0	0	311	17	0	0	0	20	0	255
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	0	0	1845	1900	1900	1845	1900	1900	1845	1845
Adj Flow Rate, veh/h	163	270	0	0	342	18	0	0	0	22	0	280
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3	3	3	3
Cap, veh/h	199	330	0	0	424	22	0	3	0	283	0	712
Arrive On Green	0.29	0.29	0.00	0.00	0.24	0.24	0.00	0.00	0.00	0.16	0.00	0.16
Sat Flow, veh/h	682	1129	0	0	1737	91	0	1845	0	1757	0	1568
Grp Volume(v), veh/h	433	0	0	0	0	360	0	0	0	22	0	280
Grp Sat Flow(s),veh/h/ln	1811	0	0	0	0	1829	0	1845	0	1757	0	1568
Q Serve(g_s), s	12.8	0.0	0.0	0.0	0.0	10.7	0.0	0.0	0.0	0.6	0.0	6.8
Cycle Q Clear(g_c), s	12.8	0.0	0.0	0.0	0.0	10.7	0.0	0.0	0.0	0.6	0.0	6.8
Prop In Lane	0.38		0.00	0.00		0.05	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	530	0	0	0	0	446	0	3	0	283	0	712
V/C Ratio(X)	0.82	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.00	0.08	0.00	0.39
Avail Cap(c_a), veh/h	1730	0	0	0	0	953	0	160	0	549	0	949
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	0.0	0.0	0.0	20.5	0.0	0.0	0.0	20.5	0.0	10.4
Incr Delay (d2), s/veh	2.4	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.3	0.0	4.4
LnGrp Delay(d),s/veh	21.3	0.0	0.0	0.0	0.0	23.1	0.0	0.0	0.0	20.6	0.0	10.7
LnGrp LOS	C					C				C		B
Approach Vol, veh/h		433			360			0				302
Approach Delay, s/veh		21.3			23.1			0.0				11.4
Approach LOS		C			C							B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.6		0.0		19.8		15.1				
Change Period (Y+Rc), s		5.8		4.6		5.8		5.8				
Max Green Setting (Gmax), s		55.0		5.0		30.0		18.0				
Max Q Clear Time (g_c+I1), s		14.8		0.0		12.7		8.8				
Green Ext Time (p_c), s		2.1		0.0		1.4		0.5				
Intersection Summary												
HCM 2010 Ctrl Delay				19.2								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary
 34: Grant Line Rd & Bond Rd/Wrangler Dr

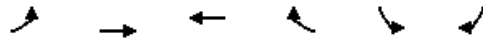
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	218	14	7	2	7	4	4	418	3	8	590	237
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1667	1900	1767	1900	1900	1855	1900	1900	1881	1900
Adj Flow Rate, veh/h	227	15	0	2	7	0	4	435	3	8	615	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	14	14	14	14	0	2	2	0	1	0
Cap, veh/h	289	19	241	5	16	0	10	721	5	19	757	650
Arrive On Green	0.17	0.17	0.00	0.01	0.01	0.00	0.01	0.39	0.39	0.01	0.40	0.00
Sat Flow, veh/h	1702	112	1417	388	1359	0	1810	1840	13	1810	1881	1615
Grp Volume(v), veh/h	242	0	0	9	0	0	4	0	438	8	615	0
Grp Sat Flow(s),veh/h/ln	1815	0	1417	1747	0	0	1810	0	1852	1810	1881	1615
Q Serve(g_s), s	7.5	0.0	0.0	0.3	0.0	0.0	0.1	0.0	11.0	0.3	17.0	0.0
Cycle Q Clear(g_c), s	7.5	0.0	0.0	0.3	0.0	0.0	0.1	0.0	11.0	0.3	17.0	0.0
Prop In Lane	0.94		1.00	0.22		0.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	308	0	241	20	0	0	10	0	726	19	757	650
V/C Ratio(X)	0.78	0.00	0.00	0.44	0.00	0.00	0.41	0.00	0.60	0.42	0.81	0.00
Avail Cap(c_a), veh/h	777	0	606	359	0	0	774	0	2219	774	2254	1935
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.2	0.0	0.0	28.7	0.0	0.0	29.0	0.0	14.1	28.7	15.5	0.0
Incr Delay (d2), s/veh	1.7	0.0	0.0	5.5	0.0	0.0	10.0	0.0	0.3	5.5	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	0.0	0.2	0.0	0.0	0.1	0.0	5.7	0.2	8.9	0.0
LnGrp Delay(d),s/veh	24.9	0.0	0.0	34.2	0.0	0.0	38.9	0.0	14.4	34.3	16.3	0.0
LnGrp LOS	C			C			D		B	C	B	
Approach Vol, veh/h		242			9			442			623	
Approach Delay, s/veh		24.9			34.2			14.7			16.6	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	29.5		15.9	6.9	28.9		6.7				
Change Period (Y+Rc), s	6.0	6.0		6.0	* 6.3	6.0		6.0				
Max Green Setting (Gmax), s	25.0	70.0		25.0	* 25	70.0		12.0				
Max Q Clear Time (g_c+I1), s	2.1	19.0		9.5	2.3	13.0		2.3				
Green Ext Time (p_c), s	0.0	4.5		0.7	0.0	4.6		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			17.6									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM Unsignalized Intersection Capacity Analysis

35: Elk Grove Blvd & I-5 SB Ramps

7/18/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↔	↔		↔↔	
Volume (veh/h)	0	11	5	97	1403	6
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	12	5	102	1477	6
Pedestrians		10			10	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		1			1	
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2979	2967	2970	10	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2979	2967	2970	10	0	
tC, single (s)	7.1	6.7	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.2	4.0	3.3	2.2	
p0 queue free %	0	0	0	90	10	
cM capacity (veh/h)	0	1	1	1065	1636	
Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	
Volume Total	4	8	107	985	499	
Volume Left	0	0	0	985	492	
Volume Right	0	0	102	0	6	
cSH	1	1	28	1636	1636	
Volume to Capacity	3.20	6.41	3.86	0.90	0.90	
Queue Length 95th (ft)	Err	Err	Err	390	390	
Control Delay (s)	Err	Err	Err	22.3	22.3	
Lane LOS	F	F	F	C	C	
Approach Delay (s)	Err		9999.0	22.3		
Approach LOS	F		F			
Intersection Summary						
Average Delay			763.0			
Intersection Capacity Utilization			55.9%	ICU Level of Service		B
Analysis Period (min)			15			

Intersection

Int Delay, s/veh 3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	1417	0	0	101	518	1	0	216	0	0	0
Conflicting Peds, #/hr	0	0	10	0	0	10	0	0	10	0	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	225	-	-	-	-	0	-	-	400	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	29	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	7	1461	0	0	104	534	1	0	223	0	0	0

Major/Minor	Major1	Major2	Minor1						
Conflicting Flow All	104	0	0	1471	0	0	1589	1589	740
Stage 1	-	-	-	-	-	-	1485	1485	-
Stage 2	-	-	-	-	-	-	104	104	-
Critical Hdwy	4.39	-	-	4.1	-	-	6.6	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	5.8	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.461	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1335	-	-	464	-	0	110	109	364
Stage 1	-	-	-	-	-	0	178	190	-
Stage 2	-	-	-	-	-	0	925	813	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1324	-	-	464	-	-	108	0	361
Mov Cap-2 Maneuver	-	-	-	-	-	-	108	0	-
Stage 1	-	-	-	-	-	-	176	0	-
Stage 2	-	-	-	-	-	-	917	0	-

























Approach	EB	WB	NB
HCM Control Delay, s	0	0	29.8
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT
Capacity (veh/h)	108	361	1324	-	-	464	-
HCM Lane V/C Ratio	0.01	0.617	0.005	-	-	-	-
HCM Control Delay (s)	38.7	29.8	7.7	-	-	0	-
HCM Lane LOS	E	D	A	-	-	A	-
HCM 95th %tile Q(veh)	0	3.9	0	-	-	0	-

HCM 2010 Signalized Intersection Summary


























37: W Taron Dr/Harbour Point Dr & Elk Grove Blvd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	201	1230	190	141	442	168	142	93	137	347	99	140
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	209	1281	116	147	460	72	148	97	12	361	103	21
Adj No. of Lanes	2	3	1	2	3	1	2	1	1	2	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	277	2649	814	212	2553	785	214	153	130	432	271	229
Arrive On Green	0.08	0.53	0.53	0.06	0.51	0.51	0.06	0.08	0.08	0.13	0.15	0.15
Sat Flow, veh/h	3408	5036	1548	3408	5036	1548	3408	1845	1562	3408	1845	1558
Grp Volume(v), veh/h	209	1281	116	147	460	72	148	97	12	361	103	21
Grp Sat Flow(s),veh/h/ln	1704	1679	1548	1704	1679	1548	1704	1845	1562	1704	1845	1558
Q Serve(g_s), s	6.0	16.2	3.8	4.2	5.0	2.4	4.3	5.1	0.7	10.3	5.0	1.2
Cycle Q Clear(g_c), s	6.0	16.2	3.8	4.2	5.0	2.4	4.3	5.1	0.7	10.3	5.0	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	277	2649	814	212	2553	785	214	153	130	432	271	229
V/C Ratio(X)	0.76	0.48	0.14	0.69	0.18	0.09	0.69	0.63	0.09	0.84	0.38	0.09
Avail Cap(c_a), veh/h	525	2649	814	525	2553	785	729	341	289	729	341	288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	15.1	12.1	46.0	13.4	12.7	45.9	44.4	42.4	42.7	38.5	36.9
Incr Delay (d2), s/veh	1.6	0.6	0.4	1.5	0.2	0.2	1.5	3.2	0.2	1.7	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	7.6	1.7	2.0	2.3	1.1	2.1	2.7	0.3	5.0	2.6	0.5
LnGrp Delay(d),s/veh	46.6	15.7	12.5	47.5	13.5	13.0	47.4	47.5	42.6	44.3	39.2	37.0
LnGrp LOS	D	B	B	D	B	B	D	D	D	D	D	D
Approach Vol, veh/h		1606			679			257				485
Approach Delay, s/veh		19.5			20.8			47.2				42.9
Approach LOS		B			C			D				D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.7	56.2	10.9	20.2	10.8	58.1	17.3	13.8				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	15.4	24.5	21.4	18.5	15.4	24.5	21.4	18.5				
Max Q Clear Time (g_c+I1), s	8.0	7.0	6.3	7.0	6.2	18.2	12.3	7.1				
Green Ext Time (p_c), s	0.1	11.1	0.1	0.6	0.1	5.0	0.3	0.6				
Intersection Summary												
HCM 2010 Ctrl Delay			25.9									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
 38: Elk Grove Blvd & Four Winds Dr

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						  	
Volume (veh/h)	97	1912	0	0	1042	346	0	0	0	285	0	53
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	0	1845	0	1845	0	1845
Adj Flow Rate, veh/h	101	1992	0	0	1085	190	0	0	0	297	0	6
Adj No. of Lanes	1	3	0	0	3	1	0	1	0	2	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	0	0	3	3	0	3	0	3	0	3
Cap, veh/h	127	3982	0	0	3387	1054	0	2	0	369	0	0
Arrive On Green	0.07	0.79	0.00	0.00	0.67	0.67	0.00	0.00	0.00	0.11	0.00	0.00
Sat Flow, veh/h	1757	5202	0	0	5202	1567	0	-84854	0	3408	297	
Grp Volume(v), veh/h	101	1992	0	0	1085	190	0	0	0	297	45.1	
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1679	1567	0	1845	0	1704	D	
Q Serve(g_s), s	5.7	13.7	0.0	0.0	9.0	4.5	0.0	0.0	0.0	8.5		
Cycle Q Clear(g_c), s	5.7	13.7	0.0	0.0	9.0	4.5	0.0	0.0	0.0	8.5		
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	127	3982	0	0	3387	1054	0	2	0	369		
V/C Ratio(X)	0.80	0.50	0.00	0.00	0.32	0.18	0.00	0.00	0.00	0.81		
Avail Cap(c_a), veh/h	218	3982	0	0	3387	1054	0	303	0	866		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.82	0.82	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	45.7	3.6	0.0	0.0	6.8	6.1	0.0	0.0	0.0	43.6		
Incr Delay (d2), s/veh	4.2	0.5	0.0	0.0	0.2	0.3	0.0	0.0	0.0	1.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.9	6.4	0.0	0.0	4.2	2.0	0.0	0.0	0.0	4.1		
LnGrp Delay(d),s/veh	49.9	4.1	0.0	0.0	7.0	6.4	0.0	0.0	0.0	45.1		
LnGrp LOS	D	A			A	A				D		
Approach Vol, veh/h		2093			1275			0				
Approach Delay, s/veh		6.3			6.9			0.0				
Approach LOS		A			A							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4		6						
Phs Duration (G+Y+Rc), s	11.8	72.8	15.4	0.0		84.6						
Change Period (Y+Rc), s	4.6	5.5	4.6	4.6		5.5						
Max Green Setting (Gmax), s	12.4	26.5	25.4	16.4		43.5						
Max Q Clear Time (g_c+I1), s	7.7	11.0	10.5	0.0		15.7						
Green Ext Time (p_c), s	0.0	14.3	0.3	0.0		24.2						
Intersection Summary												
HCM 2010 Ctrl Delay			9.7									
HCM 2010 LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
 39: Franklin Blvd & Elk Grove Blvd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	187	1320	537	77	772	273	467	257	85	347	379	242
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	203	1435	404	84	839	98	508	279	14	377	412	18
Adj No. of Lanes	2	3	2	2	3	1	2	3	1	2	3	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	277	2397	1643	139	2192	668	613	935	281	441	681	203
Arrive On Green	0.08	0.48	0.48	0.04	0.44	0.44	0.18	0.19	0.19	0.13	0.14	0.14
Sat Flow, veh/h	3408	5036	2703	3408	5036	1535	3408	5036	1515	3408	5036	1503
Grp Volume(v), veh/h	203	1435	404	84	839	98	508	279	14	377	412	18
Grp Sat Flow(s),veh/h/ln	1704	1679	1352	1704	1679	1535	1704	1679	1515	1704	1679	1503
Q Serve(g_s), s	7.0	25.1	8.3	2.9	13.5	4.6	17.2	5.7	0.9	13.0	9.2	1.3
Cycle Q Clear(g_c), s	7.0	25.1	8.3	2.9	13.5	4.6	17.2	5.7	0.9	13.0	9.2	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	277	2397	1643	139	2192	668	613	935	281	441	681	203
V/C Ratio(X)	0.73	0.60	0.25	0.60	0.38	0.15	0.83	0.30	0.05	0.86	0.61	0.09
Avail Cap(c_a), veh/h	494	2397	1643	494	2192	668	863	1406	423	494	860	257
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	23.0	11.0	56.6	23.0	20.4	47.4	42.1	40.2	51.1	48.9	45.4
Incr Delay (d2), s/veh	1.1	0.9	0.3	1.6	0.5	0.5	3.3	0.1	0.0	11.6	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	11.8	3.2	1.4	6.4	2.0	8.4	2.7	0.4	6.8	4.3	0.5
LnGrp Delay(d),s/veh	55.0	23.9	11.3	58.2	23.5	20.9	50.7	42.2	40.2	62.7	49.2	45.5
LnGrp LOS	D	C	B	E	C	C	D	D	D	E	D	D
Approach Vol, veh/h		2042			1021			801			807	
Approach Delay, s/veh		24.5			26.1			47.6			55.4	
Approach LOS		C			C			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.4	57.7	26.2	21.7	9.5	62.6	20.1	27.8				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	17.4	31.5	30.4	20.5	17.4	31.5	17.4	33.5				
Max Q Clear Time (g_c+I1), s	9.0	15.5	19.2	11.2	4.9	27.1	15.0	7.7				
Green Ext Time (p_c), s	0.8	15.5	2.3	5.0	0.3	4.4	0.5	9.6				
Intersection Summary												
HCM 2010 Ctrl Delay			34.2									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
 40: Backer Ranch Dr & Elk Grove Blvd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Volume (veh/h)	66	1503	113	84	1281	10	141	24	49	43	30	62
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	69	1566	113	88	1334	10	147	25	4	45	31	1
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	89	3039	219	112	3340	25	176	166	27	58	75	63
Arrive On Green	0.05	0.63	0.63	0.08	0.86	0.86	0.10	0.11	0.11	0.03	0.04	0.04
Sat Flow, veh/h	1757	4786	345	1757	5156	39	1757	1544	247	1757	1845	1568
Grp Volume(v), veh/h	69	1098	581	88	869	475	147	0	29	45	31	1
Grp Sat Flow(s),veh/h/ln	1757	1679	1774	1757	1679	1838	1757	0	1791	1757	1845	1568
Q Serve(g_s), s	4.7	21.3	21.3	5.9	6.6	6.6	9.9	0.0	1.8	3.0	2.0	0.1
Cycle Q Clear(g_c), s	4.7	21.3	21.3	5.9	6.6	6.6	9.9	0.0	1.8	3.0	2.0	0.1
Prop In Lane	1.00		0.19	1.00		0.02	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	89	2132	1127	112	2175	1191	176	0	192	58	75	63
V/C Ratio(X)	0.77	0.52	0.52	0.79	0.40	0.40	0.84	0.00	0.15	0.77	0.42	0.02
Avail Cap(c_a), veh/h	343	2132	1127	299	2175	1191	299	0	230	299	237	201
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	11.9	11.9	54.1	3.4	3.4	53.0	0.0	48.6	57.6	56.2	55.3
Incr Delay (d2), s/veh	5.2	0.9	1.7	3.6	0.4	0.8	4.0	0.0	0.1	7.8	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	10.0	10.9	3.0	3.0	3.5	5.0	0.0	0.9	1.6	1.0	0.0
LnGrp Delay(d),s/veh	61.5	12.8	13.6	57.7	3.8	4.2	57.0	0.0	48.7	65.3	57.6	55.3
LnGrp LOS	E	B	B	E	A	A	E		D	E	E	E
Approach Vol, veh/h		1748			1432			176			77	
Approach Delay, s/veh		15.0			7.2			55.6			62.1	
Approach LOS		B			A			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.2	81.7	16.6	9.5	10.7	83.2	8.6	17.5				
Change Period (Y+Rc), s	4.6	5.5	4.6	4.6	4.6	5.5	4.6	4.6				
Max Green Setting (Gmax), s	20.4	44.5	20.4	15.4	23.4	41.5	20.4	15.4				
Max Q Clear Time (g_c+I1), s	7.9	23.3	11.9	4.0	6.7	8.6	5.0	3.8				
Green Ext Time (p_c), s	0.2	18.6	0.2	0.1	0.1	27.2	0.1	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			14.9									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
 41: Bruceville Rd & Elk Grove Blvd
























Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	318	1058	123	449	1084	223	118	348	183	256	723	224
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	346	1150	37	488	1178	115	128	378	65	278	786	60
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	444	1965	598	579	2164	659	193	930	254	349	1175	323
Arrive On Green	0.04	0.13	0.13	0.34	0.86	0.86	0.06	0.17	0.17	0.10	0.21	0.21
Sat Flow, veh/h	3408	5036	1533	3408	5036	1534	3514	5534	1512	3514	5534	1519
Grp Volume(v), veh/h	346	1150	37	488	1178	115	128	378	65	278	786	60
Grp Sat Flow(s),veh/h/ln	1704	1679	1533	1704	1679	1534	1757	1845	1512	1757	1845	1519
Q Serve(g_s), s	12.1	25.8	2.5	15.9	7.4	1.5	4.3	7.3	4.5	9.3	15.6	3.9
Cycle Q Clear(g_c), s	12.1	25.8	2.5	15.9	7.4	1.5	4.3	7.3	4.5	9.3	15.6	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	444	1965	598	579	2164	659	193	930	254	349	1175	323
V/C Ratio(X)	0.78	0.59	0.06	0.84	0.54	0.17	0.66	0.41	0.26	0.80	0.67	0.19
Avail Cap(c_a), veh/h	721	1965	598	863	2164	659	451	1130	309	451	1175	323
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.76	0.76	0.76	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	43.1	33.0	38.1	5.3	4.9	55.6	44.6	43.4	52.9	43.4	38.8
Incr Delay (d2), s/veh	0.9	1.0	0.2	2.4	0.8	0.4	1.4	0.1	0.2	5.6	1.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	12.2	1.1	7.6	3.4	0.7	2.1	3.8	1.9	4.8	8.1	1.6
LnGrp Delay(d),s/veh	56.6	44.1	33.1	40.6	6.1	5.3	57.1	44.7	43.6	58.5	44.6	38.9
LnGrp LOS	E	D	C	D	A	A	E	D	D	E	D	D
Approach Vol, veh/h		1533			1781			571			1124	
Approach Delay, s/veh		46.7			15.5			47.3			47.7	
Approach LOS		D			B			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.2	57.6	11.2	31.0	25.0	52.8	16.5	25.7				
Change Period (Y+Rc), s	4.6	6.0	4.6	5.5	4.6	* 6	4.6	5.5				
Max Green Setting (Gmax), s	25.4	34.0	15.4	24.5	30.4	* 30	15.4	24.5				
Max Q Clear Time (g_c+I1), s	14.1	9.4	6.3	17.6	17.9	27.8	11.3	9.3				
Green Ext Time (p_c), s	1.6	23.6	0.4	5.8	2.5	1.7	0.6	9.9				
Intersection Summary												
HCM 2010 Ctrl Delay			35.9									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

























HCM 2010 Signalized Intersection Summary
42: Elk Grove Blvd & Wymark Dr

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	1409	31	26	1833	118	18	6	47	54	7	9
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.91	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1900	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	15	1532	33	28	1992	120	20	7	25	65	0	6
Adj No. of Lanes	1	3	1	1	3	0	0	1	1	2	0	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	29	3375	1019	44	3248	195	70	24	76	196	0	80
Arrive On Green	0.03	1.00	1.00	0.05	1.00	1.00	0.05	0.05	0.05	0.06	0.00	0.06
Sat Flow, veh/h	1757	5036	1521	1757	4849	291	1318	461	1432	3514	0	1438
Grp Volume(v), veh/h	15	1532	33	28	1376	736	27	0	25	65	0	6
Grp Sat Flow(s),veh/h/ln	1757	1679	1521	1757	1679	1783	1779	0	1432	1757	0	1438
Q Serve(g_s), s	1.0	0.0	0.0	1.9	0.0	0.0	1.8	0.0	2.0	2.1	0.0	0.5
Cycle Q Clear(g_c), s	1.0	0.0	0.0	1.9	0.0	0.0	1.8	0.0	2.0	2.1	0.0	0.5
Prop In Lane	1.00		1.00	1.00		0.16	0.74		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	29	3375	1019	44	2249	1194	94	0	76	196	0	80
V/C Ratio(X)	0.52	0.45	0.03	0.63	0.61	0.62	0.29	0.00	0.33	0.33	0.00	0.07
Avail Cap(c_a), veh/h	122	3375	1019	357	2249	1194	273	0	220	539	0	221
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	0.75	0.75	0.75	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.6	0.0	0.0	56.4	0.0	0.0	54.6	0.0	54.8	54.5	0.0	53.7
Incr Delay (d2), s/veh	9.8	0.3	0.0	10.6	0.9	1.8	1.7	0.0	2.5	1.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.1	0.0	1.0	0.3	0.6	0.9	0.0	0.9	1.1	0.0	0.2
LnGrp Delay(d),s/veh	67.4	0.3	0.0	67.0	0.9	1.8	56.3	0.0	57.3	55.5	0.0	54.1
LnGrp LOS	E	A	A	E	A	A	E		E	E		D
Approach Vol, veh/h		1580			2140			52				71
Approach Delay, s/veh		0.9			2.1			56.8				55.4
Approach LOS		A			A			E				E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	87.1		11.9	8.6	87.1		12.3				
Change Period (Y+Rc), s	6.7	6.7		5.6	5.6	6.7		5.6				
Max Green Setting (Gmax), s	8.3	50.3		18.4	24.4	35.3		18.4				
Max Q Clear Time (g_c+I1), s	3.0	2.0		4.0	3.9	2.0		4.1				
Green Ext Time (p_c), s	0.0	43.5		0.2	0.1	30.9		0.3				
Intersection Summary												
HCM 2010 Ctrl Delay			3.4									
HCM 2010 LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

HCM 2010 Signalized Intersection Summary
 43: Big Horn Blvd & Elk Grove Blvd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	199	1220	75	302	1574	197	78	92	188	183	225	199
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.95	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	216	1326	37	328	1711	160	85	100	8	199	245	18
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	287	2589	790	408	2767	845	138	419	179	267	552	238
Arrive On Green	0.17	1.00	1.00	0.12	0.55	0.55	0.04	0.12	0.12	0.08	0.16	0.16
Sat Flow, veh/h	3408	5036	1537	3408	5036	1538	3408	3505	1497	3408	3505	1509
Grp Volume(v), veh/h	216	1326	37	328	1711	160	85	100	8	199	245	18
Grp Sat Flow(s),veh/h/ln	1704	1679	1537	1704	1679	1538	1704	1752	1497	1704	1752	1509
Q Serve(g_s), s	7.2	0.0	0.0	11.2	27.8	6.3	2.9	3.1	0.6	6.9	7.6	1.2
Cycle Q Clear(g_c), s	7.2	0.0	0.0	11.2	27.8	6.3	2.9	3.1	0.6	6.9	7.6	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	287	2589	790	408	2767	845	138	419	179	267	552	238
V/C Ratio(X)	0.75	0.51	0.05	0.80	0.62	0.19	0.61	0.24	0.04	0.74	0.44	0.08
Avail Cap(c_a), veh/h	579	2589	790	579	2767	845	494	803	343	494	803	346
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	0.0	0.0	51.5	18.5	13.6	56.6	47.9	46.8	54.1	45.8	43.1
Incr Delay (d2), s/veh	1.4	0.7	0.1	3.5	1.0	0.5	1.6	0.1	0.0	1.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.2	0.0	5.5	13.1	2.8	1.4	1.5	0.2	3.3	3.7	0.5
LnGrp Delay(d),s/veh	50.0	0.7	0.1	55.0	19.5	14.1	58.3	48.0	46.8	55.7	46.0	43.2
LnGrp LOS	D	A	A	D	B	B	E	D	D	E	D	D
Approach Vol, veh/h		1579			2199			193			462	
Approach Delay, s/veh		7.4			24.4			52.5			50.1	
Approach LOS		A			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.7	71.4	9.5	24.4	19.0	67.2	14.0	19.8				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	20.4	34.5	17.4	27.5	20.4	34.5	17.4	27.5				
Max Q Clear Time (g_c+I1), s	9.2	29.8	4.9	9.6	13.2	2.0	8.9	5.1				
Green Ext Time (p_c), s	0.9	4.7	0.2	3.5	1.1	32.2	0.6	3.9				
Intersection Summary												
HCM 2010 Ctrl Delay			22.2									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

44: Laguna Springs Dr & Elk Grove Blvd Performance by movement

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.0	2.2	0.2	2.0	0.0	0.0	0.0	3.6	0.3	0.5	3.6	0.8
Total Delay (hr)	0.0	0.4	1.5	0.0	0.5	1.9	0.1	0.2	0.3	0.1	0.5	0.2
Total Del/Veh (s)	48.1	51.6	14.4	3.7	53.6	13.1	14.6	52.7	49.0	16.8	51.0	44.7
Stop Delay (hr)	0.0	0.4	0.9	0.0	0.5	0.9	0.1	0.2	0.2	0.1	0.4	0.2
Stop Del/Veh (s)	45.4	46.7	8.2	1.6	49.2	6.4	7.5	49.5	43.9	16.1	47.2	39.6
Total Stops	1	23	137	2	28	100	7	14	15	28	30	16
Stop/Veh	1.00	0.85	0.36	0.40	0.85	0.19	0.28	0.88	0.79	0.88	0.88	0.84
Travel Dist (mi)	0.2	5.2	75.5	1.0	4.8	85.5	4.1	2.7	3.0	5.3	6.5	3.7
Travel Time (hr)	0.0	0.5	3.2	0.0	0.7	4.5	0.2	0.3	0.3	0.3	0.7	0.3
Avg Speed (mph)	9	10	24	30	7	19	16	8	9	16	9	11
Fuel Used (gal)	0.0	0.1	1.1	0.0	0.1	1.9	0.1	0.0	0.1	0.1	0.1	0.1
Fuel Eff. (mpg)	78.6	63.4	66.2	63.6	51.2	45.8	50.9	62.1	49.6	66.2	61.6	59.0
HC Emissions (g)	0	2	32	1	4	54	2	1	2	3	2	2
CO Emissions (g)	2	77	1180	29	120	1666	56	53	56	93	90	48
NOx Emissions (g)	0	6	105	2	11	193	7	4	5	9	7	5
Vehicles Entered	1	25	360	5	29	519	24	16	18	31	33	18
Vehicles Exited	1	26	368	5	31	506	24	15	18	31	30	17
Hourly Exit Rate	4	104	1472	20	124	2024	96	60	72	124	120	68
Input Volume	5	99	1444	23	120	2051	96	64	67	126	133	70
% of Volume	80	105	102	87	103	99	100	94	107	98	90	97
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	2	13	0	3	18	1	1	1	1	3	1

44: Laguna Springs Dr & Elk Grove Blvd Performance by movement

Movement	SBR	All
Denied Delay (hr)	0.0	0.1
Denied Del/Veh (s)	3.6	0.4
Total Delay (hr)	0.2	6.0
Total Del/Veh (s)	19.6	18.7
Stop Delay (hr)	0.2	4.1
Stop Del/Veh (s)	18.0	12.7
Total Stops	29	430
Stop/Veh	0.85	0.37
Travel Dist (mi)	6.6	203.9
Travel Time (hr)	0.4	11.7
Avg Speed (mph)	16	18
Fuel Used (gal)	0.1	3.7
Fuel Eff. (mpg)	57.6	54.5
HC Emissions (g)	3	107
CO Emissions (g)	92	3560
NOx Emissions (g)	9	362
Vehicles Entered	33	1112
Vehicles Exited	32	1104
Hourly Exit Rate	128	4416
Input Volume	134	4432
% of Volume	96	100
Denied Entry Before	0	0
Denied Entry After	0	0
Density (ft/veh)		353
Occupancy (veh)	2	46

45: Auto Center Dr & Elk Grove Blvd Performance by movement

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.4	0.3
Total Delay (hr)	0.0	0.5	2.2	0.1	0.2	0.8	3.1	0.0	0.5	0.1	0.7	0.6
Total Del/Veh (s)		47.8	19.7	16.3	48.2	50.1	19.3	18.3	51.4	62.9	39.9	48.2
Stop Delay (hr)	0.0	0.4	1.5	0.1	0.2	0.7	1.8	0.0	0.5	0.1	0.7	0.6
Stop Del/Veh (s)		42.2	13.7	11.1	43.8	44.6	11.3	10.8	48.2	58.7	38.3	46.1
Total Stops	0	29	141	7	13	42	229	1	32	7	58	40
Stop/Veh		0.81	0.36	0.39	0.76	0.78	0.40	0.50	0.89	1.00	0.89	0.83
Travel Dist (mi)	0.0	5.3	61.7	2.8	2.4	7.7	83.7	0.3	2.5	0.5	4.4	1.3
Travel Time (hr)	0.0	0.7	4.0	0.2	0.3	1.0	5.8	0.0	0.6	0.1	0.9	0.7
Avg Speed (mph)	7	8	15	15	7	7	14	13	4	4	5	2
Fuel Used (gal)	0.0	0.1	1.2	0.0	0.1	0.2	1.8	0.0	0.1	0.0	0.1	0.0
Fuel Eff. (mpg)	59.8	46.8	49.4	57.4	45.8	47.6	47.3	69.3	35.7	36.8	42.8	27.4
HC Emissions (g)	0	3	38	2	1	5	54	0	2	0	3	1
CO Emissions (g)	1	101	1251	44	49	181	1696	2	51	10	82	28
NOx Emissions (g)	0	10	129	5	4	16	183	0	5	1	8	3
Vehicles Entered	0	32	379	17	15	48	552	2	35	7	62	46
Vehicles Exited	0	33	384	17	16	51	563	2	32	7	60	45
Hourly Exit Rate	0	132	1536	68	64	204	2252	8	128	28	240	180
Input Volume	1	124	1512	66	60	198	2192	7	148	27	250	197
% of Volume	0	106	102	103	107	103	103	114	86	104	96	91
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	3	16	1	1	4	23	0	2	1	4	3

45: Auto Center Dr & Elk Grove Blvd Performance by movement

Movement	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.3	0.5	0.1
Total Delay (hr)	0.0	0.3	9.1
Total Del/Veh (s)	54.4	29.5	25.4
Stop Delay (hr)	0.0	0.3	6.9
Stop Del/Veh (s)	52.3	29.3	19.2
Total Stops	3	27	629
Stop/Veh	1.00	0.84	0.49
Travel Dist (mi)	0.1	0.9	173.7
Travel Time (hr)	0.0	0.3	14.9
Avg Speed (mph)	2	3	12
Fuel Used (gal)	0.0	0.0	3.7
Fuel Eff. (mpg)	31.6	30.5	47.4
HC Emissions (g)	0	1	109
CO Emissions (g)	1	15	3511
NOx Emissions (g)	0	2	366
Vehicles Entered	3	32	1230
Vehicles Exited	3	30	1243
Hourly Exit Rate	12	120	4972
Input Volume	13	127	4922
% of Volume	92	94	101
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			146
Occupancy (veh)	0	1	59

46: Elk Grove Blvd & SR 99 SB Off Performance by movement

Movement	EBT	EBR	WBU	WBL	WBT	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0		0.0	0.0	0.5		0.5	0.2
Total Delay (hr)	3.3	0.4	0.0	0.4	1.2	2.3	0.0	3.8	11.4
Total Del/Veh (s)	25.0	29.4		54.8	11.9	45.5		47.1	29.7
Stop Delay (hr)	2.0	0.3	0.0	0.4	0.8	1.7	0.0	2.9	8.1
Stop Del/Veh (s)	15.3	18.7		51.9	8.0	35.0		35.4	21.1
Total Stops	200	25	0	24	122	161	0	306	838
Stop/Veh	0.42	0.51		0.86	0.34	0.89		1.05	0.61
Travel Dist (mi)	72.6	7.5	0.0	2.0	27.4	41.5	0.0	66.2	217.2
Travel Time (hr)	5.5	0.7	0.0	0.5	2.0	3.6	0.0	6.0	18.3
Avg Speed (mph)	13	11	5	4	14	12	14	11	12
Fuel Used (gal)	1.4	0.1	0.0	0.0	0.5	0.7	0.0	1.1	3.9
Fuel Eff. (mpg)	50.2	55.4	71.7	51.1	59.9	60.0	96.1	61.0	56.4
HC Emissions (g)	44	4	0	1	11	19	0	27	105
CO Emissions (g)	1431	113	0	28	284	565	0	773	3195
NOx Emissions (g)	149	12	0	2	36	59	0	81	339
Vehicles Entered	457	47	0	25	340	171	0	274	1314
Vehicles Exited	454	46	0	27	351	163	0	265	1306
Hourly Exit Rate	1816	184	0	108	1404	652	0	1060	5224
Input Volume	1833	184	2	97	1376	679	1	1081	5253
% of Volume	99	100	0	111	102	96	0	98	99
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0
Density (ft/veh)									132
Occupancy (veh)	22	3	0	2	8	14	0	24	73

47: Elk Grove Blvd Performance by movement

Movement	EBT	WBT	WBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.6	0.4	0.1	1.1
Total Del/Veh (s)	3.6	3.8	5.9	3.8
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.2	0.1	0.1
Total Stops	12	8	0	20
Stop/Veh	0.02	0.02	0.00	0.02
Travel Dist (mi)	54.4	69.6	12.5	136.5
Travel Time (hr)	2.4	2.5	0.5	5.5
Avg Speed (mph)	23	27	23	25
Fuel Used (gal)	1.4	1.5	0.2	3.1
Fuel Eff. (mpg)	39.2	45.7	54.0	43.4
HC Emissions (g)	48	49	7	103
CO Emissions (g)	1729	1627	240	3595
NOx Emissions (g)	170	167	24	361
Vehicles Entered	617	366	68	1051
Vehicles Exited	616	365	68	1049
Hourly Exit Rate	2464	1460	272	4196
Input Volume	2515	1476	278	4269
% of Volume	98	99	98	98
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0
Density (ft/veh)				244
Occupancy (veh)	10	10	2	22

48: E Stockton Blvd & SR 99 NB Off Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.9	0.6	0.5	0.5	0.1	0.1	3.6	0.3	0.2	0.1	0.0	0.1
Total Delay (hr)	0.4	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.1	0.4	0.9
Total Del/Veh (s)	20.4	22.3	11.7	28.5	27.8	4.9	33.1	22.2	10.2	39.1	39.1	30.1
Stop Delay (hr)	0.4	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.1	0.3	0.6
Stop Del/Veh (s)	18.1	19.5	10.7	27.3	26.1	4.9	29.7	17.7	8.6	32.0	31.0	20.6
Total Stops	53	3	3	3	5	13	29	38	2	14	42	89
Stop/Veh	0.67	0.75	0.75	0.75	0.83	0.87	0.88	0.68	0.67	1.17	1.11	0.86
Travel Dist (mi)	18.4	0.9	1.0	0.1	0.1	0.3	4.5	7.8	0.5	1.5	4.6	12.7
Travel Time (hr)	1.2	0.1	0.1	0.0	0.1	0.0	0.5	0.6	0.0	0.2	0.6	1.3
Avg Speed (mph)	15	15	18	2	2	7	10	14	19	7	8	10
Fuel Used (gal)	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.3
Fuel Eff. (mpg)	55.4	68.1	73.7	33.7	35.6	82.0	55.7	59.7	78.8	47.8	44.1	39.8
HC Emissions (g)	5	0	0	0	0	0	2	4	0	1	3	10
CO Emissions (g)	125	3	3	1	2	2	91	151	6	30	120	332
NOx Emissions (g)	17	0	0	0	0	0	7	13	0	3	12	34
Vehicles Entered	73	4	4	4	6	15	31	54	3	11	36	98
Vehicles Exited	75	4	4	4	5	14	31	54	3	11	36	97
Hourly Exit Rate	300	16	16	16	20	56	124	216	12	44	144	388
Input Volume	303	15	15	14	24	55	124	220	13	44	147	417
% of Volume	99	107	107	114	83	102	100	98	92	100	98	93
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	5	0	0	0	0	0	2	2	0	1	2	5

48: E Stockton Blvd & SR 99 NB Off Performance by movement

Movement	SBR	All
Denied Delay (hr)	0.0	0.1
Denied Del/Veh (s)	0.0	0.6
Total Delay (hr)	0.4	3.1
Total Del/Veh (s)	9.2	21.0
Stop Delay (hr)	0.1	2.2
Stop Del/Veh (s)	3.0	15.2
Total Stops	90	384
Stop/Veh	0.51	0.72
Travel Dist (mi)	21.9	74.2
Travel Time (hr)	1.4	6.1
Avg Speed (mph)	15	12
Fuel Used (gal)	0.4	1.4
Fuel Eff. (mpg)	57.2	52.2
HC Emissions (g)	13	40
CO Emissions (g)	483	1350
NOx Emissions (g)	45	131
Vehicles Entered	170	509
Vehicles Exited	169	507
Hourly Exit Rate	676	2028
Input Volume	680	2071
% of Volume	99	98
Denied Entry Before	0	0
Denied Entry After	0	0
Density (ft/veh)		294
Occupancy (veh)	6	24

49: E Stockton Blvd/Emerald Vista Dr & Elk Grove Blvd Performance by movement























Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	2.3	2.3	0.8	2.4	0.0	0.0	0.0	3.4
Total Delay (hr)	0.1	0.6	2.3	0.8	0.0	0.4	2.7	0.2	1.5	0.4	0.4	0.7
Total Del/Veh (s)	60.4	57.2	24.0	11.6	66.3	61.7	30.9	21.2	51.6	47.5	34.9	49.8
Stop Delay (hr)	0.1	0.6	1.7	0.0	0.0	0.4	2.0	0.1	1.3	0.3	0.3	0.7
Stop Del/Veh (s)	56.2	52.4	18.1	0.4	62.0	55.6	23.1	15.7	46.5	40.9	30.8	46.2
Total Stops	4	32	170	21	1	25	198	21	82	19	30	44
Stop/Veh	1.00	0.80	0.50	0.08	1.00	0.96	0.62	0.64	0.80	0.70	0.81	0.81
Travel Dist (mi)	0.7	6.5	57.3	44.7	0.2	4.8	62.2	6.5	12.4	3.2	4.6	5.1
Travel Time (hr)	0.1	0.8	3.9	2.3	0.0	0.6	4.6	0.4	1.9	0.5	0.6	1.0
Avg Speed (mph)	8	8	15	19	8	8	14	16	6	7	8	5
Fuel Used (gal)	0.0	0.1	1.0	0.6	0.0	0.1	1.0	0.1	0.3	0.1	0.1	0.1
Fuel Eff. (mpg)	65.5	52.6	58.7	79.2	68.8	57.4	59.5	58.4	44.0	41.4	45.2	45.6
HC Emissions (g)	0	3	25	17	0	2	27	4	8	4	4	3
CO Emissions (g)	10	79	694	477	2	55	774	109	324	113	138	90
NOx Emissions (g)	1	9	79	55	0	5	81	11	28	10	11	9
Vehicles Entered	4	36	325	251	1	24	304	32	94	25	35	50
Vehicles Exited	4	36	324	251	1	24	298	31	93	25	35	50
Hourly Exit Rate	16	144	1296	1004	4	96	1192	124	372	100	140	200
Input Volume	17	144	1318	1036	5	91	1200	121	383	103	136	197
% of Volume	94	100	98	97	80	105	99	102	97	97	103	102
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	3	16	9	0	2	18	2	8	2	2	4

49: E Stockton Blvd/Emerald Vista Dr & Elk Grove Blvd Performance by movement

Movement	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.2
Denied Del/Veh (s)	0.7	0.3	0.5
Total Delay (hr)	0.5	0.1	10.8
Total Del/Veh (s)	46.6	12.2	29.4
Stop Delay (hr)	0.5	0.1	8.2
Stop Del/Veh (s)	43.0	11.5	22.4
Total Stops	32	32	711
Stop/Veh	0.80	0.80	0.54
Travel Dist (mi)	3.7	3.9	215.9
Travel Time (hr)	0.7	0.3	17.8
Avg Speed (mph)	6	12	12
Fuel Used (gal)	0.1	0.1	3.6
Fuel Eff. (mpg)	48.7	53.8	59.3
HC Emissions (g)	2	2	101
CO Emissions (g)	47	50	2961
NOx Emissions (g)	5	6	309
Vehicles Entered	37	38	1256
Vehicles Exited	37	39	1248
Hourly Exit Rate	148	156	4992
Input Volume	145	153	5049
% of Volume	102	102	99
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			179
Occupancy (veh)	3	1	71

HCM 2010 Signalized Intersection Summary
 50: Elk Grove Florin Rd & Elk Grove Blvd

























Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	330	634	283	116	538	72	240	317	78	119	303	323
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	344	660	122	121	560	68	250	330	65	124	316	70
Adj No. of Lanes	2	2	1	1	2	0	2	2	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	443	1125	493	154	875	106	345	735	143	158	444	370
Arrive On Green	0.13	0.32	0.32	0.09	0.28	0.28	0.10	0.25	0.25	0.09	0.24	0.24
Sat Flow, veh/h	3408	3505	1536	1757	3139	380	3408	2914	566	1757	1845	1539
Grp Volume(v), veh/h	344	660	122	121	312	316	250	197	198	124	316	70
Grp Sat Flow(s),veh/h/ln	1704	1752	1536	1757	1752	1767	1704	1752	1728	1757	1845	1539
Q Serve(g_s), s	7.2	11.6	4.3	5.0	11.5	11.6	5.2	7.0	7.2	5.1	11.6	2.7
Cycle Q Clear(g_c), s	7.2	11.6	4.3	5.0	11.5	11.6	5.2	7.0	7.2	5.1	11.6	2.7
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	443	1125	493	154	489	493	345	442	436	158	444	370
V/C Ratio(X)	0.78	0.59	0.25	0.78	0.64	0.64	0.72	0.45	0.46	0.79	0.71	0.19
Avail Cap(c_a), veh/h	1155	1901	833	596	951	958	1155	951	937	596	1001	835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	20.9	18.5	33.0	23.3	23.4	32.1	23.2	23.3	32.9	25.7	22.3
Incr Delay (d2), s/veh	1.1	0.2	0.1	3.3	0.5	0.5	1.1	0.3	0.3	3.3	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	5.6	1.8	2.6	5.6	5.7	2.5	3.4	3.4	2.6	6.0	1.1
LnGrp Delay(d),s/veh	32.2	21.1	18.6	36.2	23.8	23.9	33.2	23.5	23.6	36.1	26.5	22.4
LnGrp LOS	C	C	B	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		1126			749			645			510	
Approach Delay, s/veh		24.2			25.9			27.3			28.3	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.2	25.2	12.1	22.3	11.1	28.3	11.2	23.2				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	9.2	13.6	7.2	13.6	7.0	13.6	7.1	9.2				
Green Ext Time (p_c), s	0.4	6.6	0.3	2.1	0.1	6.6	0.1	2.1				
Intersection Summary												
HCM 2010 Ctrl Delay			26.0									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

51: Waterman Rd & Elk Grove Blvd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	101	424	104	90	398	138	159	244	77	221	219	79
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	1863	1900	1900	1863	1881	1900	1863	1845
Adj Flow Rate, veh/h	106	446	56	95	419	82	167	257	8	233	231	15
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	2	0	0	2	1	0	2	3
Cap, veh/h	142	632	533	124	603	457	212	572	253	284	375	308
Arrive On Green	0.08	0.33	0.33	0.07	0.32	0.32	0.12	0.16	0.16	0.16	0.20	0.20
Sat Flow, veh/h	1810	1900	1602	1792	1863	1413	1810	3539	1564	1810	1863	1529
Grp Volume(v), veh/h	106	446	56	95	419	82	167	257	8	233	231	15
Grp Sat Flow(s),veh/h/ln	1810	1900	1602	1792	1863	1413	1810	1770	1564	1810	1863	1529
Q Serve(g_s), s	3.8	13.5	1.6	3.4	12.9	2.7	5.9	4.3	0.3	8.2	7.5	0.5
Cycle Q Clear(g_c), s	3.8	13.5	1.6	3.4	12.9	2.7	5.9	4.3	0.3	8.2	7.5	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	632	533	124	603	457	212	572	253	284	375	308
V/C Ratio(X)	0.74	0.71	0.11	0.76	0.70	0.18	0.79	0.45	0.03	0.82	0.62	0.05
Avail Cap(c_a), veh/h	961	1730	1458	951	1696	1286	686	2148	949	686	1130	928
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	19.2	15.2	30.1	19.5	16.0	28.3	25.0	23.3	26.9	24.0	21.2
Incr Delay (d2), s/veh	7.5	0.5	0.0	3.6	0.5	0.1	2.5	0.2	0.0	2.3	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	7.2	0.7	1.8	6.7	1.1	3.1	2.1	0.1	4.3	3.9	0.2
LnGrp Delay(d),s/veh	37.2	19.7	15.2	33.8	20.0	16.1	30.8	25.2	23.3	29.2	24.6	21.3
LnGrp LOS	D	B	B	C	C	B	C	C	C	C	C	C
Approach Vol, veh/h		608			596			432			479	
Approach Delay, s/veh		22.3			21.7			27.3			26.7	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	25.9	12.3	17.9	9.2	26.5	14.9	15.3				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	35.0	60.0	25.0	40.0	35.0	60.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	5.8	14.9	7.9	9.5	5.4	15.5	10.2	6.3				
Green Ext Time (p_c), s	0.3	4.2	0.2	2.0	0.1	4.2	0.3	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			24.2									
HCM 2010 LOS			C									

HCM 2010 AWSC
52: Bradshaw Rd & Elk Grove Blvd

Timing Plan: PM Peak Hour

Intersection	
Intersection Delay, s/veh	18
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	90	135	12	0	11	186	13	0	34	213	9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	97	145	13	0	12	200	14	0	37	229	10
Number of Lanes	0	0	1	1	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	17	15.2	16.2
HCM LOS	C	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	13%	40%	0%	5%	3%
Vol Thru, %	83%	60%	0%	89%	61%
Vol Right, %	4%	0%	100%	6%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	256	225	12	210	375
LT Vol	34	90	0	11	13
Through Vol	213	135	0	186	228
RT Vol	9	0	12	13	134
Lane Flow Rate	275	242	13	226	403
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.503	0.499	0.023	0.433	0.683
Departure Headway (Hd)	6.574	7.42	6.497	6.91	6.099
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	545	484	548	519	589
Service Time	4.646	5.192	4.269	4.988	4.163
HCM Lane V/C Ratio	0.505	0.5	0.024	0.435	0.684
HCM Control Delay	16.2	17.4	9.4	15.2	21.4
HCM Lane LOS	C	C	A	C	C
HCM 95th-tile Q	2.8	2.7	0.1	2.2	5.3

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	13	228	134
Peak Hour Factor	0.93	0.93	0.93	0.93
Heavy Vehicles, %	3	3	3	3
Mvmt Flow	0	14	245	144
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	21.4
HCM LOS	C

Lane

HCM 2010 AWSC
 53: Grant Line Rd & Elk Grove Blvd

Timing Plan: PM Peak Hour

























Intersection									
Intersection Delay, s/veh	14.2								
Intersection LOS	B								
Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Vol, veh/h	0	125	3	0	6	293	0	401	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	0	0	2	0	2	2	2	0
Mvmt Flow	0	136	3	0	7	318	0	436	228
Number of Lanes	0	1	1	0	0	1	0	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	12.6	13.9	14.7
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	2%	100%	0%	0%	0%
Vol Thru, %	98%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	299	125	3	401	210
LT Vol	6	125	0	0	0
Through Vol	293	0	0	401	0
RT Vol	0	0	3	0	210
Lane Flow Rate	325	136	3	436	228
Geometry Grp	4	7	7	7	7
Degree of Util (X)	0.493	0.275	0.005	0.648	0.292
Departure Headway (Hd)	5.567	7.279	6.058	5.351	4.611
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	650	497	594	667	767
Service Time	3.567	4.979	3.758	3.149	2.408
HCM Lane V/C Ratio	0.5	0.274	0.005	0.654	0.297
HCM Control Delay	13.9	12.7	8.8	17.6	9.3
HCM Lane LOS	B	B	A	C	A
HCM 95th-tile Q	2.7	1.1	0	4.7	1.2

HCM 2010 Signalized Intersection Summary
 54: Bruceville Rd & Backer Ranch Rd/Civic Center Dr

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	72	46	105	60	62	34	96	683	57	53	1055	63
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	78	50	106	65	67	11	104	742	20	58	1147	67
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	103	271	222	135	236	192	135	2077	900	76	1880	110
Arrive On Green	0.06	0.15	0.15	0.04	0.13	0.13	0.08	0.59	0.59	0.04	0.56	0.56
Sat Flow, veh/h	1757	1845	1506	3408	1845	1500	1757	3505	1519	1757	3359	196
Grp Volume(v), veh/h	78	50	106	65	67	11	104	742	20	58	598	616
Grp Sat Flow(s),veh/h/ln	1757	1845	1506	1704	1845	1500	1757	1752	1519	1757	1752	1802
Q Serve(g_s), s	4.8	2.6	7.0	2.0	3.6	0.7	6.3	11.9	0.6	3.6	24.9	24.9
Cycle Q Clear(g_c), s	4.8	2.6	7.0	2.0	3.6	0.7	6.3	11.9	0.6	3.6	24.9	24.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	103	271	222	135	236	192	135	2077	900	76	981	1009
V/C Ratio(X)	0.76	0.18	0.48	0.48	0.28	0.06	0.77	0.36	0.02	0.76	0.61	0.61
Avail Cap(c_a), veh/h	403	677	553	782	677	551	403	2252	976	403	1126	1158
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	40.7	42.6	51.2	43.0	41.7	49.4	11.5	9.2	51.5	16.0	16.0
Incr Delay (d2), s/veh	4.3	0.1	0.6	1.0	0.2	0.0	3.5	0.0	0.0	5.6	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.3	2.9	1.0	1.8	0.3	3.2	5.8	0.2	1.8	12.1	12.4
LnGrp Delay(d),s/veh	54.8	40.8	43.2	52.2	43.2	41.8	52.9	11.5	9.2	57.2	16.4	16.4
LnGrp LOS	D	D	D	D	D	D	D	B	A	E	B	B
Approach Vol, veh/h		234			143			866			1272	
Approach Delay, s/veh		46.6			47.2			16.4			18.3	
Approach LOS		D			D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.9	66.5	11.0	18.6	9.3	70.1	8.9	20.6				
Change Period (Y+Rc), s	4.6	5.5	4.6	4.6	4.6	5.5	4.6	4.6				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	8.3	26.9	6.8	5.6	5.6	13.9	4.0	9.0				
Green Ext Time (p_c), s	0.4	34.1	0.3	0.9	0.2	41.8	0.3	0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			21.9									
HCM 2010 LOS			C									

HCM 2010 AWSC
55: Civic Center Dr & Wymark

Timing Plan: PM Peak Hour

Intersection

Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	17	127	19	0	16	146	5	0	14	9	7
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	18	135	20	0	17	155	5	0	15	10	7
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	8.7	8.8	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	47%	100%	0%	100%	0%	20%
Vol Thru, %	30%	0%	87%	0%	97%	43%
Vol Right, %	23%	0%	13%	0%	3%	37%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	17	146	16	151	49
LT Vol	14	17	0	16	0	10
Through Vol	9	0	127	0	146	21
RT Vol	7	0	19	0	5	18
Lane Flow Rate	32	18	155	17	161	52
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.043	0.027	0.207	0.026	0.217	0.067
Departure Headway (Hd)	4.815	5.401	4.808	5.397	4.872	4.656
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	745	664	749	665	739	771
Service Time	2.835	3.12	2.526	3.114	2.589	2.675
HCM Lane V/C Ratio	0.043	0.027	0.207	0.026	0.218	0.067
HCM Control Delay	8.1	8.3	8.8	8.3	8.9	8
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.8	0.1	0.8	0.2

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	10	21	18
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	3	3	3	3
Mvmt Flow	0	11	22	19
Number of Lanes	0	0	1	0

Approach SB

























Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	8
HCM LOS	A

Lane

HCM 2010 Signalized Intersection Summary













56: Big Horn Blvd & Civic Center Dr

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	66	45	15	4	41	12	13	278	7	5	478	113
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	72	49	9	4	45	6	14	302	8	5	520	116
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	100	363	299	9	268	219	30	1494	39	12	1183	262
Arrive On Green	0.06	0.20	0.20	0.01	0.15	0.15	0.02	0.43	0.43	0.01	0.42	0.42
Sat Flow, veh/h	1757	1845	1517	1757	1845	1506	1757	3485	92	1757	2831	628
Grp Volume(v), veh/h	72	49	9	4	45	6	14	151	159	5	321	315
Grp Sat Flow(s),veh/h/ln	1757	1845	1517	1757	1845	1506	1757	1752	1824	1757	1752	1706
Q Serve(g_s), s	2.5	1.4	0.3	0.1	1.3	0.2	0.5	3.4	3.4	0.2	8.2	8.3
Cycle Q Clear(g_c), s	2.5	1.4	0.3	0.1	1.3	0.2	0.5	3.4	3.4	0.2	8.2	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.37
Lane Grp Cap(c), veh/h	100	363	299	9	268	219	30	751	782	12	733	713
V/C Ratio(X)	0.72	0.13	0.03	0.42	0.17	0.03	0.46	0.20	0.20	0.43	0.44	0.44
Avail Cap(c_a), veh/h	698	1173	964	698	1173	957	698	1950	2030	698	1950	1898
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	20.8	20.4	31.2	23.5	23.1	30.6	11.2	11.2	31.1	13.0	13.1
Incr Delay (d2), s/veh	3.6	0.1	0.0	10.8	0.1	0.0	4.0	0.0	0.0	8.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.7	0.1	0.1	0.7	0.1	0.3	1.7	1.7	0.1	4.0	3.9
LnGrp Delay(d),s/veh	32.8	20.9	20.4	42.0	23.7	23.1	34.7	11.3	11.3	40.1	13.2	13.2
LnGrp LOS	C	C	C	D	C	C	C	B	B	D	B	B
Approach Vol, veh/h		130			55			324			641	
Approach Delay, s/veh		27.5			24.9			12.3			13.4	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	31.6	9.2	14.8	6.7	32.3	5.9	18.0				
Change Period (Y+Rc), s	6.3	5.3	5.6	5.6	6.3	5.3	5.6	* 5.6				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	* 40				
Max Q Clear Time (g_c+I1), s	2.5	10.3	4.5	3.3	2.2	5.4	2.1	3.4				
Green Ext Time (p_c), s	0.0	15.9	0.1	0.4	0.0	16.1	0.0	0.4				
Intersection Summary												
HCM 2010 Ctrl Delay			15.2									
HCM 2010 LOS			B									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												
























HCM 2010 Signalized Intersection Summary
 57: Big Horn Blvd & Denali Circle

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑		↙	↑↑			↕↔	
Volume (veh/h)	46	0	4	0	0	0	6	252	0	0	440	58
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	0	1845	0	1845	1845	0	0	1845	1900
Adj Flow Rate, veh/h	50	0	0	0	0	0	7	274	0	0	478	58
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	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
Percent Heavy Veh, %	3	3	3	0	3	0	3	3	0	0	3	3
Cap, veh/h	151	0	0	0	5	0	16	2285	0	0	1575	190
Arrive On Green	0.09	0.00	0.00	0.00	0.00	0.00	0.01	0.65	0.00	0.00	0.50	0.50
Sat Flow, veh/h	1757	0	0	0	1845	0	1757	3597	0	0	3228	379
Grp Volume(v), veh/h	50	0	0	0	0	0	7	274	0	0	266	270
Grp Sat Flow(s),veh/h/ln	1757	0	0	0	1845	0	1757	1752	0	0	1752	1762
Q Serve(g_s), s	1.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.0	0.0	3.4	3.4
Cycle Q Clear(g_c), s	1.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.0	0.0	3.4	3.4
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00	0.00		0.21
Lane Grp Cap(c), veh/h	151	0	0	0	5	0	16	2285	0	0	880	885
V/C Ratio(X)	0.33	0.00	0.00	0.00	0.00	0.00	0.43	0.12	0.00	0.00	0.30	0.31
Avail Cap(c_a), veh/h	1164	0	0	0	1222	0	1164	6501	0	0	3251	3269
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	0.0	0.0	0.0	0.0	0.0	18.6	2.5	0.0	0.0	5.5	5.5
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.0	0.0	1.6	1.7
LnGrp Delay(d),s/veh	16.7	0.0	0.0	0.0	0.0	0.0	24.9	2.5	0.0	0.0	5.6	5.6
LnGrp LOS	B						C	A			A	A
Approach Vol, veh/h		50			0			281			536	
Approach Delay, s/veh		16.7			0.0			3.0			5.6	
Approach LOS		B						A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	5.7	24.2		0.0		29.9		7.8				
Change Period (Y+Rc), s	5.3	5.3		4.6		5.3		4.6				
Max Green Setting (Gmax), s	25.0	70.0		25.0		70.0		25.0				
Max Q Clear Time (g_c+I1), s	2.1	5.4		0.0		3.1		3.0				
Green Ext Time (p_c), s	0.0	13.2		0.0		13.3		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			5.4									
HCM 2010 LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
 58: Big Horn Blvd & Denali Circle/Lotz Pkwy

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	44	18	2	62	23	48	30	166	62	88	291	65
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.94	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	48	20	0	67	25	6	33	180	22	96	316	61
Adj No. of Lanes	1	1	0	2	1	2	1	2	1	2	2	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	82	301	0	194	320	639	63	1012	441	232	937	178
Arrive On Green	0.05	0.16	0.00	0.06	0.17	0.17	0.04	0.29	0.29	0.07	0.32	0.32
Sat Flow, veh/h	1757	1845	0	3408	1845	2598	1757	3505	1527	3408	2917	554
Grp Volume(v), veh/h	48	20	0	67	25	6	33	180	22	96	188	189
Grp Sat Flow(s),veh/h/ln	1757	1845	0	1704	1845	1299	1757	1752	1527	1704	1752	1719
Q Serve(g_s), s	1.5	0.5	0.0	1.1	0.7	0.1	1.1	2.2	0.6	1.6	4.7	4.8
Cycle Q Clear(g_c), s	1.5	0.5	0.0	1.1	0.7	0.1	1.1	2.2	0.6	1.6	4.7	4.8
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	82	301	0	194	320	639	63	1012	441	232	563	552
V/C Ratio(X)	0.59	0.07	0.00	0.34	0.08	0.01	0.53	0.18	0.05	0.41	0.33	0.34
Avail Cap(c_a), veh/h	761	1279	0	1477	1279	1990	761	4254	1854	2364	2127	2086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.0	20.4	0.0	26.2	20.0	16.6	27.3	15.4	14.8	25.8	14.9	14.9
Incr Delay (d2), s/veh	2.5	0.0	0.0	0.4	0.0	0.0	2.5	0.0	0.0	0.4	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.3	0.0	0.5	0.3	0.0	0.6	1.1	0.3	0.7	2.3	2.3
LnGrp Delay(d),s/veh	29.4	20.5	0.0	26.5	20.0	16.6	29.9	15.4	14.8	26.2	15.0	15.1
LnGrp LOS	C	C		C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		68			98			235			473	
Approach Delay, s/veh		26.8			24.3			17.4			17.3	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	23.8	8.3	17.2	10.2	22.0	8.9	16.6				
Change Period (Y+Rc), s	6.3	5.3	5.6	* 7.2	6.3	5.3	5.6	7.2				
Max Green Setting (Gmax), s	25.0	70.0	25.0	* 40	40.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	3.1	6.8	3.5	2.7	3.6	4.2	3.1	2.5				
Green Ext Time (p_c), s	0.1	8.1	0.1	0.2	0.6	8.1	0.1	0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			18.8									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

























HCM 2010 Signalized Intersection Summary
 59: Big Horn Blvd & Whitelock Pkwy

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	201	66	5	6	124	42	8	15	16	12	15	261
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	218	72	2	7	135	10	9	16	2	13	16	24
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	447	1118	488	32	692	299	40	499	214	57	516	222
Arrive On Green	0.13	0.32	0.32	0.01	0.20	0.20	0.01	0.14	0.14	0.02	0.15	0.15
Sat Flow, veh/h	3408	3505	1529	3408	3505	1517	3408	3505	1505	3408	3505	1506
Grp Volume(v), veh/h	218	72	2	7	135	10	9	16	2	13	16	24
Grp Sat Flow(s),veh/h/ln	1704	1752	1529	1704	1752	1517	1704	1752	1505	1704	1752	1506
Q Serve(g_s), s	2.5	0.6	0.0	0.1	1.4	0.2	0.1	0.2	0.0	0.2	0.2	0.6
Cycle Q Clear(g_c), s	2.5	0.6	0.0	0.1	1.4	0.2	0.1	0.2	0.0	0.2	0.2	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	447	1118	488	32	692	299	40	499	214	57	516	222
V/C Ratio(X)	0.49	0.06	0.00	0.22	0.20	0.03	0.22	0.03	0.01	0.23	0.03	0.11
Avail Cap(c_a), veh/h	2804	4943	2157	2003	4943	2140	2003	3296	1415	2804	3296	1416
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	10.1	9.9	20.9	14.3	13.8	20.8	15.7	15.7	20.6	15.5	15.7
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.3	0.1	0.0	1.0	0.0	0.0	0.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.3	0.0	0.0	0.7	0.1	0.1	0.1	0.0	0.1	0.1	0.2
LnGrp Delay(d),s/veh	17.5	10.1	9.9	22.2	14.3	13.8	21.8	15.7	15.7	21.4	15.5	15.8
LnGrp LOS	B	B	A	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		292			152			27				53
Approach Delay, s/veh		15.6			14.6			17.8				17.1
Approach LOS		B			B			B				B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.8	11.6	11.2	13.0	7.0	11.4	6.0	18.2				
Change Period (Y+Rc), s	6.3	5.3	5.6	4.6	6.3	5.3	5.6	4.6				
Max Green Setting (Gmax), s	25.0	40.0	35.0	60.0	35.0	40.0	25.0	60.0				
Max Q Clear Time (g_c+I1), s	2.1	2.6	4.5	3.4	2.2	2.2	2.1	2.6				
Green Ext Time (p_c), s	0.0	0.3	1.5	1.7	0.0	0.3	0.0	1.7				
Intersection Summary												
HCM 2010 Ctrl Delay			15.6									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary
 60: Wolf Pack Lane/Laguna Springs Dr & Lotz Parkway













Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	86	9	6	6	15	16	29	87	6	5	57	54
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	95	10	5	7	16	15	32	96	7	5	63	40
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	303	874	390	32	596	265	132	573	253	23	462	206
Arrive On Green	0.09	0.25	0.25	0.01	0.17	0.17	0.04	0.16	0.16	0.01	0.13	0.13
Sat Flow, veh/h	3408	3505	1566	3408	3505	1562	3408	3505	1547	3408	3505	1568
Grp Volume(v), veh/h	95	10	5	7	16	15	32	96	7	5	63	40
Grp Sat Flow(s),veh/h/ln	1704	1752	1566	1704	1752	1562	1704	1752	1547	1704	1752	1568
Q Serve(g_s), s	0.8	0.1	0.1	0.1	0.1	0.3	0.3	0.8	0.1	0.0	0.5	0.7
Cycle Q Clear(g_c), s	0.8	0.1	0.1	0.1	0.1	0.3	0.3	0.8	0.1	0.0	0.5	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	303	874	390	32	596	265	132	573	253	23	462	206
V/C Ratio(X)	0.31	0.01	0.01	0.22	0.03	0.06	0.24	0.17	0.03	0.22	0.14	0.19
Avail Cap(c_a), veh/h	4230	4350	1944	4230	4350	1939	7402	7612	3360	2644	7612	3405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.8	9.1	9.1	15.8	11.2	11.2	15.0	11.6	11.3	15.9	12.4	12.5
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.2	0.0	0.0	0.4	0.1	0.0	1.7	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.0	0.1	0.1	0.1	0.4	0.1	0.0	0.2	0.3
LnGrp Delay(d),s/veh	14.0	9.1	9.1	17.1	11.2	11.2	15.4	11.6	11.3	17.6	12.4	12.6
LnGrp LOS	B	A	A	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		110			38			135			108	
Approach Delay, s/veh		13.3			12.3			12.5			12.7	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	8.8	7.5	10.1	4.8	9.9	4.9	12.6				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	70.0	70.0	40.0	40.0	25.0	70.0	40.0	40.0				
Max Q Clear Time (g_c+I1), s	2.3	2.7	2.8	2.3	2.0	2.8	2.1	2.1				
Green Ext Time (p_c), s	0.1	0.7	0.2	0.1	0.0	0.7	0.0	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			12.8									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary

61: Willard Pkwy/Franklin Blvd & Whitelock Pkwy

























Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑		↵	↵	↶	↵	↶	↶	↶	↶	↑
Volume (veh/h)	0	0	0	66	0	308	2	302	84	545	404	0
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	0	1845	1845	1845	1845	1845	1845	1845	1845	0
Adj Flow Rate, veh/h	0	0	0	73	0	104	2	332	19	599	444	0
Adj No. of Lanes	0	1	0	1	0	2	1	2	1	2	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	3	0	3	3	3	3	3	3	3	3	0
Cap, veh/h	0	3	0	105	0	937	5	1552	694	750	1218	0
Arrive On Green	0.00	0.00	0.00	0.06	0.00	0.08	0.00	0.44	0.44	0.22	0.66	0.00
Sat Flow, veh/h	0	-61593	0	1757	0	3020	1757	3505	1567	3408	1845	0
Grp Volume(v), veh/h	0	0	0	73	0	104	2	332	19	599	444	0
Grp Sat Flow(s),veh/h/ln	0	1845	0	1757	0	1510	1757	1752	1567	1704	1845	0
Q Serve(g_s), s	0.0	0.0	0.0	2.3	0.0	1.4	0.1	3.4	0.4	9.6	6.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.3	0.0	1.4	0.1	3.4	0.4	9.6	6.2	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	3	0	105	0	937	5	1552	694	750	1218	0
V/C Ratio(X)	0.00	0.00	0.00	0.69	0.00	0.11	0.42	0.21	0.03	0.80	0.36	0.00
Avail Cap(c_a), veh/h	0	1089	0	763	0	2789	1221	4262	1905	3552	2259	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	26.5	0.0	14.5	28.7	9.9	9.0	21.2	4.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.1	0.0	0.0	19.9	0.0	0.0	0.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.2	0.0	0.6	0.1	1.6	0.2	4.6	3.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	29.6	0.0	14.5	48.6	9.9	9.1	22.0	4.4	0.0
LnGrp LOS				C		B	D	A	A	C	A	
Approach Vol, veh/h		0			177			353			1043	
Approach Delay, s/veh		0.0			20.8			10.1			14.5	
Approach LOS					C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s		9.3	17.3	31.0	8.0	1.3	4.8	43.5				
Change Period (Y+Rc), s		4.6	4.6	5.5	4.6	* 4.6	4.6	* 5.5				
Max Green Setting (Gmax), s		40.0	60.0	70.0	25.0	* 34	40.0	* 71				
Max Q Clear Time (g_c+I1), s		3.4	11.6	5.4	4.3	0.0	2.1	8.2				
Green Ext Time (p_c), s		0.7	1.1	20.1	0.1	0.0	0.0	19.9				
Intersection Summary												
HCM 2010 Ctrl Delay			14.2									
HCM 2010 LOS			B									
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

User approved changes to right turn type.

HCM 2010 Signalized Intersection Summary
62: Bruceville Rd & Whitelock Pkwy

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	321	192	37	130	231	43	125	244	50	82	400	472
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	349	209	7	141	251	5	136	265	12	89	435	359
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	452	923	401	244	709	307	231	1225	535	178	1170	719
Arrive On Green	0.13	0.26	0.26	0.07	0.20	0.20	0.07	0.35	0.35	0.05	0.33	0.33
Sat Flow, veh/h	3408	3505	1525	3408	3505	1518	3408	3505	1531	3408	3505	1530
Grp Volume(v), veh/h	349	209	7	141	251	5	136	265	12	89	435	359
Grp Sat Flow(s),veh/h/ln	1704	1752	1525	1704	1752	1518	1704	1752	1531	1704	1752	1530
Q Serve(g_s), s	8.3	3.9	0.3	3.4	5.2	0.2	3.3	4.5	0.4	2.1	7.9	13.7
Cycle Q Clear(g_c), s	8.3	3.9	0.3	3.4	5.2	0.2	3.3	4.5	0.4	2.1	7.9	13.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	452	923	401	244	709	307	231	1225	535	178	1170	719
V/C Ratio(X)	0.77	0.23	0.02	0.58	0.35	0.02	0.59	0.22	0.02	0.50	0.37	0.50
Avail Cap(c_a), veh/h	1016	1671	727	1016	1671	724	1016	2925	1278	1016	2925	1485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	24.2	22.9	37.7	28.7	26.8	38.0	19.2	17.9	38.7	21.2	15.6
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.8	0.1	0.0	0.9	0.0	0.0	0.8	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	1.9	0.1	1.6	2.5	0.1	1.6	2.1	0.2	1.0	3.8	5.8
LnGrp Delay(d),s/veh	36.2	24.3	22.9	38.5	28.9	26.8	38.9	19.2	17.9	39.5	21.3	15.8
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		565			397			413			883	
Approach Delay, s/veh		31.6			32.3			25.7			20.9	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	33.3	16.7	21.9	10.7	34.6	11.6	27.0				
Change Period (Y+Rc), s	6.3	5.3	5.6	4.9	6.3	5.3	5.6	4.9				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	5.3	15.7	10.3	7.2	4.1	6.5	5.4	5.9				
Green Ext Time (p_c), s	0.7	11.2	0.8	3.9	0.4	11.4	0.9	3.9				
Intersection Summary												
HCM 2010 Ctrl Delay			26.5									
HCM 2010 LOS			C									

Intersection

Int Delay, s/veh 7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	98	13	0	27	21	0	0	0	258	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	255	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	8	0	0	4	0	0	0	0	0	0	3
Mvmt Flow	0	111	15	0	31	24	0	0	0	293	0	44

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	31	0	-	111	0	0	142	142	31
Stage 1	-	-	-	-	-	-	31	31	-
Stage 2	-	-	-	-	-	-	111	111	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.327
Pot Cap-1 Maneuver	1595	-	0	1492	-	0	856	753	1040
Stage 1	-	-	0	-	-	0	997	873	-
Stage 2	-	-	0	-	-	0	919	807	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1595	-	-	1492	-	-	856	0	1040
Mov Cap-2 Maneuver	-	-	-	-	-	-	856	0	-
Stage 1	-	-	-	-	-	-	997	0	-
Stage 2	-	-	-	-	-	-	919	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	1595	-	1492	-	856	1040
HCM Lane V/C Ratio	-	-	-	-	0.343	0.043
HCM Control Delay (s)	0	-	0	-	11.4	8.6
HCM Lane LOS	A	-	A	-	B	A
HCM 95th %tile Q(veh)	0	-	0	-	1.5	0.1

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	313	43	0	43	99	5	0	90	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	285	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	2	0	0	1	20	0	1	0	0	0
Mvmt Flow	0	360	49	0	49	114	6	0	103	0	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	49	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1571	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1571	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-














Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBL	WBT
Capacity (veh/h)	566	687	1571	-	1210	-
HCM Lane V/C Ratio	0.01	0.151	-	-	-	-
HCM Control Delay (s)	11.4	11.2	0	-	0	-
HCM Lane LOS	B	B	A	-	A	-
HCM 95th %tile Q(veh)	0	0.5	0	-	0	-

HCM Signalized Intersection Capacity Analysis

65: Willard Pkwy & Bilby Rd North

Timing Plan: PM Peak Hour













						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 		
Volume (vph)	259	219	90	105	111	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6	5.6	4.6	5.7	5.7
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	0.98	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1752	1532	1752	3505	1845	1534
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1752	1532	1752	3505	1845	1534
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	291	246	101	118	125	73
RTOR Reduction (vph)	0	184	0	0	0	59
Lane Group Flow (vph)	291	62	101	118	125	14
Confl. Peds. (#/hr)						1
Confl. Bikes (#/hr)		2				
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	6		7 5	5 7 8	8	
Permitted Phases		6				8
Actuated Green, G (s)	18.8	18.8	24.1	44.1	14.4	14.4
Effective Green, g (s)	18.8	18.8	19.5	38.5	14.4	14.4
Actuated g/C Ratio	0.25	0.25	0.26	0.52	0.19	0.19
Clearance Time (s)	5.6	5.6			5.7	5.7
Vehicle Extension (s)	2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	443	388	460	1818	358	297
v/s Ratio Prot	c0.17		c0.06	0.03	c0.07	
v/s Ratio Perm		0.04				0.01
v/c Ratio	0.66	0.16	0.22	0.06	0.35	0.05
Uniform Delay, d1	24.8	21.6	21.4	8.9	25.8	24.3
Progression Factor	1.00	1.00	1.07	1.33	1.00	1.00
Incremental Delay, d2	2.7	0.1	0.1	0.0	0.2	0.0
Delay (s)	27.5	21.6	22.9	11.8	26.1	24.3
Level of Service	C	C	C	B	C	C
Approach Delay (s)	24.8			16.9	25.4	
Approach LOS	C			B	C	
Intersection Summary						
HCM 2000 Control Delay			23.1		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.42			
Actuated Cycle Length (s)			74.2		Sum of lost time (s)	22.9
Intersection Capacity Utilization			34.5%		ICU Level of Service	A
Analysis Period (min)			15			

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

66: Willard Pkwy & Bilby Rd South
























Timing Plan: PM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Volume (vph)	29	169	22	19	2	301	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	5.7			5.6	4.6
Lane Util. Factor	1.00	1.00	1.00			1.00	1.00
Frbp, ped/bikes	1.00	0.99	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.85	0.94			1.00	1.00
Flt Protected	0.95	1.00	1.00			0.95	1.00
Satd. Flow (prot)	1752	1548	1731			1752	1845
Flt Permitted	0.95	1.00	1.00			0.95	1.00
Satd. Flow (perm)	1752	1548	1731			1752	1845
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	31	182	24	20	2	324	31
RTOR Reduction (vph)	0	158	18	0	0	0	0
Lane Group Flow (vph)	31	24	26	0	0	326	31
Confl. Peds. (#/hr)		1					
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	NA		Prot	Prot	NA
Protected Phases	2		4		3 1	3 1	1 3 4
Permitted Phases		2					
Actuated Green, G (s)	9.9	9.9	9.1			36.9	51.6
Effective Green, g (s)	9.9	9.9	9.1			32.3	46.0
Actuated g/C Ratio	0.13	0.13	0.12			0.44	0.62
Clearance Time (s)	7.0	7.0	5.7				
Vehicle Extension (s)	2.0	2.0	2.0				
Lane Grp Cap (vph)	233	206	212			762	1143
v/s Ratio Prot	c0.02		c0.02			c0.19	0.02
v/s Ratio Perm		0.02					
v/c Ratio	0.13	0.12	0.12			0.43	0.03
Uniform Delay, d1	28.4	28.3	29.0			14.5	5.5
Progression Factor	1.00	1.00	1.00			1.48	1.09
Incremental Delay, d2	0.1	0.1	0.1			0.1	0.0
Delay (s)	28.5	28.4	29.1			21.7	5.9
Level of Service	C	C	C			C	A
Approach Delay (s)	28.4		29.1				20.3
Approach LOS	C		C				C
Intersection Summary							
HCM 2000 Control Delay			23.8			HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.30				
Actuated Cycle Length (s)			74.2			Sum of lost time (s)	22.9
Intersection Capacity Utilization			44.4%			ICU Level of Service	A
Analysis Period (min)			15				
c Critical Lane Group							

HCM 2010 Signalized Intersection Summary

67: Bruceville Rd & Bilby Rd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	109	6	108	3	3	4	191	205	1	15	141	105
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	118	7	68	3	3	1	208	223	1	16	153	54
Adj No. of Lanes	1	1	0	1	2	1	1	2	1	1	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	156	23	221	7	241	108	265	1298	581	35	840	376
Arrive On Green	0.09	0.15	0.15	0.00	0.07	0.07	0.15	0.37	0.37	0.02	0.24	0.24
Sat Flow, veh/h	1757	148	1442	1757	3505	1568	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	118	0	75	3	3	1	208	223	1	16	153	54
Grp Sat Flow(s),veh/h/ln	1757	0	1590	1757	1752	1568	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	3.2	0.0	2.0	0.1	0.0	0.0	5.6	2.1	0.0	0.4	1.7	1.3
Cycle Q Clear(g_c), s	3.2	0.0	2.0	0.1	0.0	0.0	5.6	2.1	0.0	0.4	1.7	1.3
Prop In Lane	1.00		0.91	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	156	0	244	7	241	108	265	1298	581	35	840	376
V/C Ratio(X)	0.76	0.00	0.31	0.42	0.01	0.01	0.79	0.17	0.00	0.46	0.18	0.14
Avail Cap(c_a), veh/h	596	0	931	235	1332	596	415	1908	854	235	1548	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	18.3	24.2	21.1	21.1	19.9	10.3	9.7	23.6	14.7	14.6
Incr Delay (d2), s/veh	7.2	0.0	0.3	34.4	0.0	0.0	5.1	0.1	0.0	8.9	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.9	0.1	0.0	0.0	3.0	1.0	0.0	0.3	0.8	0.6
LnGrp Delay(d),s/veh	28.9	0.0	18.6	58.6	21.1	21.1	25.1	10.4	9.7	32.5	14.9	14.9
LnGrp LOS	C		B	E	C	C	C	B	A	C	B	B
Approach Vol, veh/h		193			7			432			223	
Approach Delay, s/veh		24.9			37.2			17.5			16.2	
Approach LOS		C			D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.8	17.2	9.8	8.9	6.5	23.5	5.7	13.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	11.5	21.5	16.5	18.5	6.5	26.5	6.5	28.5				
Max Q Clear Time (g_c+I1), s	7.6	3.7	5.2	2.0	2.4	4.1	2.1	4.0				
Green Ext Time (p_c), s	0.3	8.0	0.2	0.7	0.0	9.3	0.0	0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			19.0									
HCM 2010 LOS			B									

Intersection

Int Delay, s/veh 10.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	58	365	47	61	226	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	1	7
Mvmt Flow	62	392	51	66	243	66

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	635	83	0 0 116 0
Stage 1	83	-	- - - -
Stage 2	552	-	- - - -
Critical Hdwy	6.4	6.2	- - 4.11 -
Critical Hdwy Stg 1	5.4	-	- - - -
Critical Hdwy Stg 2	5.4	-	- - - -
Follow-up Hdwy	3.5	3.3	- - 2.209 -
Pot Cap-1 Maneuver	446	982	- - 1479 -
Stage 1	945	-	- - - -
Stage 2	581	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	370	982	- - 1479 -
Mov Cap-2 Maneuver	370	-	- - - -
Stage 1	945	-	- - - -
Stage 2	482	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	15.3	0	6.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	800	1479	-
HCM Lane V/C Ratio	-	-	0.569	0.164	-
HCM Control Delay (s)	-	-	15.3	7.9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	3.6	0.6	-

69: Kammerer Rd & Lent Ranch Pkwy Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.0	0.0		0.1	0.0
Total Delay (hr)	0.0	0.1	0.2	0.0	0.0	0.0	0.2
Total Del/Veh (s)		3.7	4.7	1.0		2.5	4.3
Stop Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Stop Del/Veh (s)		2.2	2.4	0.2		3.1	2.3
Total Stops	0	8	12	0	0	3	23
Stop/Veh		0.10	0.10	0.00		1.00	0.12
Travel Dist (mi)	0.1	21.3	40.8	0.4	0.0	0.4	63.0
Travel Time (hr)	0.0	0.5	1.1	0.0	0.0	0.0	1.6
Avg Speed (mph)	37	45	38	41	22	25	40
Fuel Used (gal)	0.0	0.3	0.7	0.0	0.0	0.0	1.1
Fuel Eff. (mpg)	85.0	62.2	57.9	84.1	136.7	92.2	59.6
HC Emissions (g)	0	9	14	0	0	0	22
CO Emissions (g)	1	329	477	3	0	1	811
NOx Emissions (g)	0	37	64	0	0	0	101
Vehicles Entered	0	75	113	1	0	2	191
Vehicles Exited	0	75	112	1	0	3	191
Hourly Exit Rate	0	300	448	4	0	12	764
Input Volume	1	302	457	4	1	9	774
% of Volume	0	99	98	100	0	133	99
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							2864
Occupancy (veh)	0	2	4	0	0	0	6

70: Kammerer Rd & Promenade Pkwy Performance by movement

Movement	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.0	0.0	0.0	0.0	4.4		4.4	0.7	0.1	3.2	0.3
Total Delay (hr)	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.8	0.0	0.0	1.1
Total Del/Veh (s)		4.4	46.3	4.7	3.6	45.2		4.7	38.9	27.1	2.5	12.5
Stop Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.9
Stop Del/Veh (s)		2.3	44.8	1.9	0.2	43.6		4.9	34.8	23.4	2.7	9.5
Total Stops	0	14	2	18	0	1	0	5	56	1	2	99
Stop/Veh		0.18	0.67	0.16	0.00	1.00		1.00	0.79	1.00	0.67	0.30
Travel Dist (mi)	0.0	26.7	0.3	16.4	8.1	0.1	0.0	0.5	8.3	0.1	0.3	61.0
Travel Time (hr)	0.0	0.7	0.0	0.5	0.3	0.0	0.0	0.0	1.0	0.0	0.0	2.7
Avg Speed (mph)	16	38	7	31	26	6	4	19	8	12	27	23
Fuel Used (gal)	0.0	0.5	0.0	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.0	1.1
Fuel Eff. (mpg)	84.1	57.8	64.6	48.9	67.2	84.1	65.8	104.3	56.5	116.5	103.8	56.4
HC Emissions (g)	0	8	0	10	4	0	0	0	5	0	0	27
CO Emissions (g)	0	241	7	521	216	0	0	2	253	1	3	1244
NOx Emissions (g)	0	37	0	36	13	0	0	0	15	0	0	103
Vehicles Entered	0	75	2	109	56	1	0	5	65	1	3	317
Vehicles Exited	0	75	2	110	57	1	0	5	64	1	3	318
Hourly Exit Rate	0	300	8	440	228	4	0	20	256	4	12	1272
Input Volume	1	302	10	447	240	4	2	20	260	3	10	1299
% of Volume	0	99	80	98	95	100	0	100	98	133	120	98
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												2121
Occupancy (veh)	0	3	0	2	1	0	0	0	4	0	0	11

71: Kammerer Rd/Grant Line Rd & SR 99 SB Ramps Performance by movement

Movement	EBT	EBR	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	1.1	0.1
Total Delay (hr)	0.2	0.0	0.3	0.3	0.3	0.0	1.1
Total Del/Veh (s)	6.0	2.9	7.7	6.8	14.9	5.9	7.5
Stop Delay (hr)	0.1	0.0	0.1	0.0	0.2	0.0	0.5
Stop Del/Veh (s)	2.5	1.7	3.1	0.1	12.5	4.9	3.3
Total Stops	31	16	51	0	44	16	158
Stop/Veh	0.29	0.40	0.34	0.00	0.70	0.73	0.30
Travel Dist (mi)	16.3	6.3	26.3	23.0	21.1	7.4	100.3
Travel Time (hr)	0.6	0.3	1.0	1.0	0.9	0.3	4.0
Avg Speed (mph)	26	24	28	24	23	28	25
Fuel Used (gal)	0.3	0.1	0.5	0.3	0.3	0.1	1.7
Fuel Eff. (mpg)	48.1	58.5	52.1	68.8	69.7	60.8	58.7
HC Emissions (g)	12	3	15	12	7	3	51
CO Emissions (g)	585	175	821	546	168	69	2364
NOx Emissions (g)	39	11	54	39	21	8	172
Vehicles Entered	105	40	147	133	59	21	505
Vehicles Exited	104	40	147	135	60	21	507
Hourly Exit Rate	416	160	588	540	240	84	2028
Input Volume	427	156	612	567	232	85	2079
% of Volume	97	103	96	95	103	99	98
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							788
Occupancy (veh)	3	1	4	4	4	1	16

72: SR 99 NB Ramps & Grant Line Rd Performance by movement

Movement	EBT	EBR	WBT	WBR	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.5	0.1
Total Delay (hr)	0.3	0.0	0.8	0.1	0.2	0.3	1.7
Total Del/Veh (s)	7.1	3.4	11.9	6.7	13.0	7.0	9.1
Stop Delay (hr)	0.1	0.0	0.3	0.0	0.1	0.2	0.7
Stop Del/Veh (s)	3.4	0.2	4.1	1.9	10.5	4.5	4.1
Total Stops	42	0	92	30	27	87	278
Stop/Veh	0.30	0.00	0.37	0.41	0.61	0.66	0.42
Travel Dist (mi)	24.7	4.0	38.6	11.6	16.9	51.4	147.2
Travel Time (hr)	0.9	0.2	1.8	0.6	0.7	1.9	6.0
Avg Speed (mph)	27	26	21	21	25	28	25
Fuel Used (gal)	0.5	0.1	0.9	0.2	0.2	0.7	2.6
Fuel Eff. (mpg)	49.0	68.0	44.7	53.3	70.9	70.1	56.3
HC Emissions (g)	17	3	27	7	4	13	70
CO Emissions (g)	916	124	1344	344	100	345	3172
NOx Emissions (g)	58	8	93	25	13	44	242
Vehicles Entered	140	24	243	73	41	124	645
Vehicles Exited	137	23	239	71	42	125	637
Hourly Exit Rate	548	92	956	284	168	500	2548
Input Volume	566	93	1009	304	170	522	2664
% of Volume	97	99	95	93	99	96	96
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							652
Occupancy (veh)	4	1	7	2	3	7	24

73: Survey Rd/E Stockton Blvd & Grant Line Rd Performance by movement





















Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	2.0	2.8	2.2	3.0	0.5	3.8	3.5	0.9
Total Delay (hr)	0.1	0.7	1.0	0.0	0.0	0.2	2.3	0.3	0.6	0.2	0.1	0.4
Total Del/Veh (s)	46.5	45.0	20.1	3.8	52.0	51.0	39.8	36.7	43.7	38.7	19.4	41.6
Stop Delay (hr)	0.1	0.7	0.7	0.0	0.0	0.2	1.4	0.2	0.6	0.1	0.1	0.3
Stop Del/Veh (s)	44.4	41.3	14.7	2.6	49.2	46.8	25.4	26.0	39.4	33.7	17.0	37.3
Total Stops	5	48	86	16	2	13	144	20	43	12	10	24
Stop/Veh	0.83	0.81	0.48	0.48	1.00	0.87	0.71	0.74	0.83	0.86	0.91	0.77
Travel Dist (mi)	0.9	8.6	26.8	5.1	0.3	2.5	34.2	4.6	5.8	1.5	1.3	5.2
Travel Time (hr)	0.1	1.0	1.7	0.2	0.0	0.3	3.0	0.4	0.9	0.2	0.1	0.5
Avg Speed (mph)	8	8	16	24	8	9	12	11	7	8	11	10
Fuel Used (gal)	0.0	0.2	0.5	0.1	0.0	0.0	0.5	0.1	0.1	0.0	0.0	0.1
Fuel Eff. (mpg)	52.4	47.2	51.1	51.9	62.3	62.9	65.1	71.6	53.4	47.1	59.0	68.9
HC Emissions (g)	0	6	18	4	0	1	15	2	2	1	1	2
CO Emissions (g)	30	280	928	222	8	75	762	71	86	30	24	83
NOx Emissions (g)	1	17	60	13	0	4	46	5	7	2	2	5
Vehicles Entered	6	54	170	32	2	14	194	26	50	13	11	28
Vehicles Exited	6	55	173	32	2	14	193	25	49	12	11	28
Hourly Exit Rate	24	220	692	128	8	56	772	100	196	48	44	112
Input Volume	24	231	696	137	7	55	794	106	200	52	39	118
% of Volume	100	95	99	93	114	102	97	94	98	92	113	95
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	4	7	1	0	1	12	2	3	1	0	2

73: Survey Rd/E Stockton Blvd & Grant Line Rd Performance by movement

Movement	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.3
Denied Del/Veh (s)	1.0	3.5	1.4
Total Delay (hr)	0.1	0.4	6.4
Total Del/Veh (s)	47.2	21.6	32.1
Stop Delay (hr)	0.1	0.4	4.9
Stop Del/Veh (s)	39.5	18.5	24.8
Total Stops	7	61	491
Stop/Veh	0.88	0.84	0.69
Travel Dist (mi)	1.5	12.8	111.0
Travel Time (hr)	0.1	0.9	9.6
Avg Speed (mph)	10	15	12
Fuel Used (gal)	0.0	0.2	1.9
Fuel Eff. (mpg)	58.5	63.4	57.8
HC Emissions (g)	1	5	58
CO Emissions (g)	26	233	2859
NOx Emissions (g)	2	16	181
Vehicles Entered	8	70	678
Vehicles Exited	8	68	676
Hourly Exit Rate	32	272	2704
Input Volume	31	295	2785
% of Volume	103	92	97
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			334
Occupancy (veh)	1	3	37

HCM 2010 Signalized Intersection Summary
74: Grant Line Rd & Waterman Rd

Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	227	617	0	0	672	4	0	0	0	14	1	245
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1845	1900	1900	1827	1900	1900	1900	1900	1900	1680	1863
Adj Flow Rate, veh/h	247	671	0	0	730	1	0	0	0	15	1	14
Adj No. of Lanes	2	2	0	1	2	1	0	1	0	0	1	2
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
Percent Heavy Veh, %	7	3	3	0	4	0	0	0	0	0	0	2
Cap, veh/h	538	2279	0	5	1288	599	0	5	0	75	5	138
Arrive On Green	0.16	0.65	0.00	0.00	0.37	0.37	0.00	0.00	0.00	0.05	0.05	0.05
Sat Flow, veh/h	3281	3597	0	1810	3471	1615	0	1900	0	1504	100	2787
Grp Volume(v), veh/h	247	671	0	0	730	1	0	0	0	16	0	14
Grp Sat Flow(s),veh/h/ln	1640	1752	0	1810	1736	1615	0	1900	0	1604	0	1393
Q Serve(g_s), s	2.7	3.3	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.4	0.0	0.2
Cycle Q Clear(g_c), s	2.7	3.3	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.4	0.0	0.2
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	0.94		1.00
Lane Grp Cap(c), veh/h	538	2279	0	5	1288	599	0	5	0	80	0	138
V/C Ratio(X)	0.46	0.29	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.20	0.00	0.10
Avail Cap(c_a), veh/h	2052	5262	0	1132	5211	2425	0	1189	0	1004	0	1743
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.1	3.0	0.0	0.0	10.0	7.9	0.0	0.0	0.0	18.2	0.0	18.1
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.6	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.2	0.0	0.1
LnGrp Delay(d),s/veh	15.3	3.1	0.0	0.0	10.2	7.9	0.0	0.0	0.0	18.7	0.0	18.3
LnGrp LOS	B	A			B	A				B		B
Approach Vol, veh/h		918			731			0				30
Approach Delay, s/veh		6.4			10.1			0.0				18.5
Approach LOS		A			B							B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	20.8		0.0	0.0	32.0		8.0				
Change Period (Y+Rc), s	4.6	6.0		6.0	4.6	6.0		6.0				
Max Green Setting (Gmax), s	25.0	60.0		25.0	25.0	60.0		25.0				
Max Q Clear Time (g_c+I1), s	4.7	8.7		0.0	0.0	5.3		2.4				
Green Ext Time (p_c), s	0.4	6.1		0.0	0.0	6.1		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			8.2									
HCM 2010 LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection

Int Delay, s/veh 1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	69	562	624	29	16	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	1	3	2	3	6	0
Mvmt Flow	71	579	643	30	16	61

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	643	0	643
Stage 1	-	-	643
Stage 2	-	-	722
Critical Hdwy	4.11	-	6.46
Critical Hdwy Stg 1	-	-	5.46
Critical Hdwy Stg 2	-	-	5.46
Follow-up Hdwy	2.209	-	3.554
Pot Cap-1 Maneuver	947	-	477
Stage 1	-	-	516
Stage 2	-	-	474
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	947	-	477
Mov Cap-2 Maneuver	-	-	141
Stage 1	-	-	516
Stage 2	-	-	421

Approach	EB	WB	SB
HCM Control Delay, s	1	0	20
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	947	-	-	-	316
HCM Lane V/C Ratio	0.075	-	-	-	0.245
HCM Control Delay (s)	9.1	0	-	-	20
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9

Intersection

Int Delay, s/veh 5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	244	306	389	10	2	248
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	3	3	0	0	2
Mvmt Flow	257	322	409	11	2	261

























Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	420	0	1251
Stage 1	-	-	415
Stage 2	-	-	836
Critical Hdwy	4.14	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.236	-	3.5
Pot Cap-1 Maneuver	1128	-	192
Stage 1	-	-	671
Stage 2	-	-	429
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1128	-	139
Mov Cap-2 Maneuver	-	-	139
Stage 1	-	-	671
Stage 2	-	-	310

Approach	EB	WB	SB
HCM Control Delay, s	4.1	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1128	-	-	-	619
HCM Lane V/C Ratio	0.228	-	-	-	0.425
HCM Control Delay (s)	9.1	0	-	-	15
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.9	-	-	-	2.1

HCM 2010 Signalized Intersection Summary
1: Calvin Rd & Elk Grove Florin Rd

























Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	430	1370	150	750	1870	260	290	1640	770	200	870	390
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	478	1522	89	833	2078	222	322	1822	680	222	967	251
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	388	1372	421	646	1754	536	366	1688	524	176	1408	432
Arrive On Green	0.11	0.27	0.27	0.19	0.35	0.35	0.11	0.34	0.34	0.05	0.28	0.28
Sat Flow, veh/h	3408	5036	1544	3408	5036	1539	3408	5036	1562	3408	5036	1545
Grp Volume(v), veh/h	478	1522	89	833	2078	222	322	1822	680	222	967	251
Grp Sat Flow(s),veh/h/ln	1704	1679	1544	1704	1679	1539	1704	1679	1562	1704	1679	1545
Q Serve(g_s), s	16.5	39.5	6.5	27.5	50.5	15.9	13.5	48.6	48.6	7.5	24.8	20.3
Cycle Q Clear(g_c), s	16.5	39.5	6.5	27.5	50.5	15.9	13.5	48.6	48.6	7.5	24.8	20.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	388	1372	421	646	1754	536	366	1688	524	176	1408	432
V/C Ratio(X)	1.23	1.11	0.21	1.29	1.18	0.41	0.88	1.08	1.30	1.26	0.69	0.58
Avail Cap(c_a), veh/h	388	1372	421	646	1754	536	400	1688	524	176	1408	432
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.3	52.8	40.7	58.8	47.2	36.0	63.8	48.2	48.2	68.8	46.6	44.9
Incr Delay (d2), s/veh	125.2	60.1	0.4	141.3	89.3	0.8	17.6	46.8	147.9	154.2	1.8	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.5	25.9	2.8	25.6	37.9	6.9	7.2	29.8	42.5	7.3	11.8	9.0
LnGrp Delay(d),s/veh	189.4	112.9	41.1	200.1	136.5	36.7	81.4	95.0	196.1	223.0	48.4	47.9
LnGrp LOS	F	F	D	F	F	D	F	F	F	F	D	D
Approach Vol, veh/h		2089			3133			2824			1440	
Approach Delay, s/veh		127.3			146.4			117.8			75.2	
Approach LOS		F			F			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.1	45.9	22.0	56.0	13.0	54.0	33.0	45.0				
Change Period (Y+Rc), s	5.5	* 5.4	5.5	5.5	5.5	* 5.4	5.5	5.5				
Max Green Setting (Gmax), s	17.0	* 39	16.5	50.5	7.5	* 49	27.5	39.5				
Max Q Clear Time (g_c+I1), s	15.5	26.8	18.5	52.5	9.5	50.6	29.5	41.5				
Green Ext Time (p_c), s	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			122.9									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary

























2: Calvine Rd & Waterman Rd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	650	1770	120	190	1730	90	140	530	240	100	450	860
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	765	2082	88	224	2035	104	165	624	250	118	529	987
Adj No. of Lanes	2	3	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	465	1950	596	170	1514	461	111	1224	548	139	1278	557
Arrive On Green	0.14	0.39	0.39	0.05	0.30	0.30	0.06	0.35	0.35	0.08	0.36	0.36
Sat Flow, veh/h	3408	5036	1538	3408	5036	1533	1757	3505	1568	1757	3505	1526
Grp Volume(v), veh/h	765	2082	88	224	2035	104	165	624	250	118	529	987
Grp Sat Flow(s),veh/h/ln	1704	1679	1538	1704	1679	1533	1757	1752	1568	1757	1752	1526
Q Serve(g_s), s	20.5	58.2	5.6	7.5	45.2	7.7	9.5	21.2	18.6	10.0	17.0	54.8
Cycle Q Clear(g_c), s	20.5	58.2	5.6	7.5	45.2	7.7	9.5	21.2	18.6	10.0	17.0	54.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	465	1950	596	170	1514	461	111	1224	548	139	1278	557
V/C Ratio(X)	1.65	1.07	0.15	1.32	1.34	0.23	1.49	0.51	0.46	0.85	0.41	1.77
Avail Cap(c_a), veh/h	465	1950	596	170	1514	461	111	1224	548	214	1278	557
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.9	46.0	29.9	71.4	52.5	39.4	70.4	38.7	37.9	68.3	35.7	47.8
Incr Delay (d2), s/veh	300.1	41.2	0.0	177.9	159.2	0.1	260.3	0.1	0.2	10.9	0.1	355.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	29.0	34.3	2.4	7.7	43.2	3.3	12.6	10.3	8.1	5.3	8.2	78.0
LnGrp Delay(d),s/veh	365.0	87.3	30.0	249.3	211.7	39.5	330.7	38.9	38.1	79.2	35.8	403.1
LnGrp LOS	F	F	C	F	F	D	F	D	D	E	D	F
Approach Vol, veh/h		2935			2363			1039			1634	
Approach Delay, s/veh		157.9			207.7			85.0			260.8	
Approach LOS		F			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.0	50.3	15.0	60.0	12.0	63.3	17.3	57.7				
Change Period (Y+Rc), s	4.5	* 5.1	5.5	* 5.2	4.5	5.1	* 5.4	* 5.2				
Max Green Setting (Gmax), s	20.5	* 45	9.5	* 55	7.5	57.9	* 18	* 46				
Max Q Clear Time (g_c+I1), s	22.5	47.2	11.5	56.8	9.5	60.2	12.0	23.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3				
Intersection Summary												
HCM 2010 Ctrl Delay			184.3									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												























HCM 2010 Signalized Intersection Summary
 3: Bradshaw Rd & Calvin Rd

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	450	1030	130	100	1070	290	160	1250	50	410	870	260
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	500	1144	118	111	1189	178	178	1389	52	456	967	75
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	424	1630	507	156	1235	384	225	1231	543	400	1411	623
Arrive On Green	0.12	0.32	0.32	0.05	0.25	0.25	0.07	0.35	0.35	0.12	0.40	0.40
Sat Flow, veh/h	3408	5036	1567	3408	5036	1568	3408	3505	1545	3408	3505	1547
Grp Volume(v), veh/h	500	1144	118	111	1189	178	178	1389	52	456	967	75
Grp Sat Flow(s),veh/h/ln	1704	1679	1567	1704	1679	1568	1704	1752	1545	1704	1752	1547
Q Serve(g_s), s	17.5	28.0	7.8	4.5	32.8	13.6	7.2	49.4	3.2	16.5	32.0	4.3
Cycle Q Clear(g_c), s	17.5	28.0	7.8	4.5	32.8	13.6	7.2	49.4	3.2	16.5	32.0	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	424	1630	507	156	1235	384	225	1231	543	400	1411	623
V/C Ratio(X)	1.18	0.70	0.23	0.71	0.96	0.46	0.79	1.13	0.10	1.14	0.69	0.12
Avail Cap(c_a), veh/h	424	1630	507	216	1235	384	308	1231	543	400	1411	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.6	41.6	34.8	66.2	52.5	45.2	64.8	45.7	30.7	62.1	34.7	26.4
Incr Delay (d2), s/veh	102.7	1.2	0.1	3.0	17.3	0.3	6.4	68.7	0.0	89.3	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.2	13.1	3.4	2.2	17.2	5.9	3.6	35.5	1.4	12.7	15.7	1.8
LnGrp Delay(d),s/veh	164.3	42.8	34.9	69.2	69.8	45.5	71.2	114.4	30.7	151.4	35.8	26.4
LnGrp LOS	F	D	C	E	E	D	E	F	C	F	D	C
Approach Vol, veh/h		1762			1478			1619			1498	
Approach Delay, s/veh		76.7			66.8			107.0			70.6	
Approach LOS		E			E			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.0	40.0	14.8	62.9	11.9	51.1	22.0	55.7				
Change Period (Y+Rc), s	5.5	* 5.5	5.5	6.3	5.5	* 5.5	5.5	* 6.3				
Max Green Setting (Gmax), s	17.5	* 35	12.7	52.5	8.9	* 43	16.5	* 49				
Max Q Clear Time (g_c+I1), s	19.5	34.8	9.2	34.0	6.5	30.0	18.5	51.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	5.7	0.0	5.4	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			80.7									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												













HCM 2010 Signalized Intersection Summary
4: Excelsior Rd & Calvin Rd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	160	750	170	30	610	110	260	600	30	100	470	60
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	168	789	179	32	642	116	274	632	32	105	495	63
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	183	962	430	41	680	304	293	704	36	140	509	65
Arrive On Green	0.10	0.27	0.27	0.02	0.19	0.19	0.17	0.40	0.40	0.08	0.32	0.32
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	1741	88	1757	1604	204
Grp Volume(v), veh/h	168	789	179	32	642	116	274	0	664	105	0	558
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	0	1829	1757	0	1809
Q Serve(g_s), s	9.5	21.1	9.4	1.8	18.1	6.4	15.4	0.0	33.9	5.9	0.0	30.5
Cycle Q Clear(g_c), s	9.5	21.1	9.4	1.8	18.1	6.4	15.4	0.0	33.9	5.9	0.0	30.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.11
Lane Grp Cap(c), veh/h	183	962	430	41	680	304	293	0	740	140	0	573
V/C Ratio(X)	0.92	0.82	0.42	0.77	0.94	0.38	0.93	0.00	0.90	0.75	0.00	0.97
Avail Cap(c_a), veh/h	183	962	430	112	680	304	293	0	740	258	0	573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.4	34.0	29.7	48.6	39.8	35.1	41.1	0.0	27.8	45.0	0.0	33.7
Incr Delay (d2), s/veh	44.3	7.8	2.9	25.6	23.3	3.6	35.5	0.0	13.8	7.8	0.0	30.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	11.2	4.4	1.2	10.9	3.1	10.3	0.0	19.8	3.1	0.0	20.1
LnGrp Delay(d),s/veh	88.6	41.8	32.7	74.2	63.0	38.7	76.6	0.0	41.6	52.9	0.0	64.5
LnGrp LOS	F	D	C	E	E	D	E		D	D		E
Approach Vol, veh/h		1136			790			938				663
Approach Delay, s/veh		47.3			59.9			51.8				62.7
Approach LOS		D			E			D				E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	33.0	22.0	37.0	16.0	25.0	13.3	45.7				
Change Period (Y+Rc), s	5.6	5.6	5.3	5.3	5.6	5.6	5.3	5.3				
Max Green Setting (Gmax), s	6.4	23.4	16.7	31.7	10.4	19.4	14.7	33.7				
Max Q Clear Time (g_c+I1), s	3.8	23.1	17.4	32.5	11.5	20.1	7.9	35.9				
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.0	0.0	0.1	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			54.2									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
5: Grant Line Rd & Calvine Rd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

								
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Volume (veh/h)	240	770	630	1210	970	180		
Number	3	18	1	6	2	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1881	1681	1792	1810	1792	1863		
Adj Flow Rate, veh/h	276	859	724	1391	1115	174		
Adj No. of Lanes	1	2	2	2	2	1		
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87		
Percent Heavy Veh, %	1	13	6	5	6	2		
Cap, veh/h	335	471	800	2289	1275	593		
Arrive On Green	0.19	0.19	0.24	0.67	0.37	0.37		
Sat Flow, veh/h	1792	2515	3312	3529	3495	1583		
Grp Volume(v), veh/h	276	859	724	1391	1115	174		
Grp Sat Flow(s),veh/h/ln	1792	1258	1656	1719	1703	1583		
Q Serve(g_s), s	10.7	13.5	15.3	16.4	22.0	5.6		
Cycle Q Clear(g_c), s	10.7	13.5	15.3	16.4	22.0	5.6		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	335	471	800	2289	1275	593		
V/C Ratio(X)	0.82	1.82	0.91	0.61	0.87	0.29		
Avail Cap(c_a), veh/h	335	471	845	2427	1365	635		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	28.2	29.3	26.5	6.8	21.0	15.9		
Incr Delay (d2), s/veh	14.2	379.0	12.3	0.3	5.9	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.6	29.5	8.3	7.6	11.3	2.4		
LnGrp Delay(d),s/veh	42.4	408.3	38.8	7.0	26.9	16.0		
LnGrp LOS	D	F	D	A	C	B		
Approach Vol, veh/h	1135			2115	1289			
Approach Delay, s/veh	319.3			17.9	25.4			
Approach LOS	F			B	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	21.0	32.1				53.1		19.0
Change Period (Y+Rc), s	* 3.6	5.1				5.1		5.5
Max Green Setting (Gmax), s	* 18	28.9				50.9		13.5
Max Q Clear Time (g_c+I1), s	17.3	24.0				18.4		15.5
Green Ext Time (p_c), s	0.1	3.0				6.9		0.0
Intersection Summary								
HCM 2010 Ctrl Delay				95.4				
HCM 2010 LOS				F				
Notes								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

HCM 2010 Signalized Intersection Summary
6: Bruceville Rd & Center Parkway/Sheldon Rd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	600	300	720	550	530	640	1070	930	180	560	20
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	35	698	121	837	640	482	744	1244	925	209	651	17
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	89	1040	320	529	1691	516	482	2189	673	176	1738	541
Arrive On Green	0.03	0.21	0.21	0.16	0.34	0.34	0.05	0.14	0.14	0.05	0.35	0.35
Sat Flow, veh/h	3408	5036	1547	3408	5036	1537	3408	5036	1548	3408	5036	1567
Grp Volume(v), veh/h	35	698	121	837	640	482	744	1244	925	209	651	17
Grp Sat Flow(s),veh/h/ln	1704	1679	1547	1704	1679	1537	1704	1679	1548	1704	1679	1567
Q Serve(g_s), s	1.5	18.5	9.8	22.5	14.0	44.0	20.5	33.4	63.0	7.5	14.1	1.0
Cycle Q Clear(g_c), s	1.5	18.5	9.8	22.5	14.0	44.0	20.5	33.4	63.0	7.5	14.1	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	89	1040	320	529	1691	516	482	2189	673	176	1738	541
V/C Ratio(X)	0.39	0.67	0.38	1.58	0.38	0.93	1.54	0.57	1.37	1.19	0.37	0.03
Avail Cap(c_a), veh/h	153	1181	363	529	1737	530	482	2189	673	176	1738	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.5	53.0	49.5	61.3	36.7	46.6	69.1	49.4	62.1	68.8	35.7	31.4
Incr Delay (d2), s/veh	1.1	0.9	0.3	271.1	0.1	23.1	245.8	0.1	169.2	126.5	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	8.7	4.2	30.5	6.5	22.0	26.1	15.6	58.7	6.6	6.6	0.5
LnGrp Delay(d),s/veh	70.5	53.8	49.8	332.4	36.7	69.7	314.9	49.5	231.3	195.3	36.3	31.5
LnGrp LOS	E	D	D	F	D	E	F	D	F	F	D	C
Approach Vol, veh/h		854			1959			2913			877	
Approach Delay, s/veh		54.0			171.1			175.0			74.1	
Approach LOS		D			F			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	55.5	9.3	54.2	13.0	68.5	28.0	35.5				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	20.5	46.0	6.5	50.0	7.5	59.0	22.5	34.0				
Max Q Clear Time (g_c+I1), s	22.5	16.1	3.5	46.0	9.5	65.0	24.5	20.5				
Green Ext Time (p_c), s	0.0	14.9	0.0	2.7	0.0	0.0	0.0	6.4				
Intersection Summary												
HCM 2010 Ctrl Delay			144.8									
HCM 2010 LOS			F									
Notes												
User approved pedestrian interval to be less than phase max green.												

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
AM Peak Hour

Intersection 7 Jocelyn Wy-Lewis Stein Rd/Sheldon Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	250	238	95.2%	99.9	31.6	F
	Through	80	72	90.2%	102.9	36.0	F
	Right Turn	420	385	91.6%	99.8	39.5	F
	Subtotal	750	695	92.7%	100.4	36.2	F
SB	Left Turn	390	372	95.3%	120.9	47.2	F
	Through	200	195	97.3%	103.3	47.4	F
	Right Turn	40	38	94.8%	58.7	38.1	E
	Subtotal	630	604	95.9%	111.4	46.3	F
EB	Left Turn	50	48	95.7%	132.4	39.1	F
	Through	1,590	1,334	83.9%	132.4	22.0	F
	Right Turn	110	117	106.4%	13.0	7.5	B
	Subtotal	1,750	1,499	85.7%	123.3	21.5	F
WB	Left Turn	380	231	60.7%	238.3	58.6	F
	Through	1,640	1,440	87.8%	17.9	1.7	B
	Right Turn	290	257	88.7%	9.6	1.2	A
	Subtotal	2,310	1,928	83.5%	43.3	8.3	D
Total		5,440	4,727	86.9%	85.3	9.9	F

Intersection 8 SR 99 SB Ramps/Sheldon Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	220	221	100.5%	36.0	5.1	D
	Through						
	Right Turn	620	588	94.9%	28.4	4.2	C
	Subtotal	840	810	96.4%	30.6	3.2	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	10	6	55.2%	37.2	41.7	D
	Through	2,050	1,797	87.7%	23.6	4.3	C
	Right Turn	360	299	83.1%	14.5	1.6	B
	Subtotal	2,420	2,102	86.8%	22.4	4.0	C
WB	Left Turn	640	536	83.8%	59.9	14.9	E
	Through	1,990	1,727	86.8%	5.1	0.3	A
	Right Turn						
	Subtotal	2,630	2,263	86.0%	18.2	4.2	B
Total		5,890	5,174	87.8%	21.8	2.6	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
AM Peak Hour

Intersection 9 SR 99 NB Ramps/Sheldon Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	560	493	88.1%	136.5	29.3	F
	Through						
	Right Turn	660	585	88.7%	103.6	23.8	F
	Subtotal	1,220	1,078	88.4%	118.8	25.3	F
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	2,090	1,782	85.3%	36.6	5.7	D
	Right Turn	580	505	87.1%	5.0	0.3	A
	Subtotal	2,670	2,287	85.7%	29.6	4.5	C
WB	Left Turn						
	Through	2,070	1,844	89.1%	9.5	1.4	A
	Right Turn	870	735	84.4%	18.4	1.7	B
	Subtotal	2,940	2,579	87.7%	12.0	1.0	B
Total		6,830	5,944	87.0%	38.2	5.3	D

Intersection 10 E Stockton Blvd/Sheldon Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	350	302	86.3%	109.0	40.0	F
	Through	110	114	104.0%	48.9	17.7	D
	Right Turn	160	150	93.8%	31.6	8.1	C
	Subtotal	620	567	91.4%	77.2	28.3	E
SB	Left Turn	20	17	84.6%	68.9	19.6	E
	Through	170	178	104.6%	61.1	10.1	E
	Right Turn	430	336	78.1%	163.7	43.7	F
	Subtotal	620	531	85.6%	127.1	26.4	F
EB	Left Turn	580	423	73.0%	128.7	26.2	F
	Through	1,840	1,626	88.4%	26.0	2.0	C
	Right Turn	280	254	90.7%	12.0	2.2	B
	Subtotal	2,700	2,303	85.3%	43.5	6.0	D
WB	Left Turn	110	109	99.4%	83.5	32.9	F
	Through	2,220	1,947	87.7%	46.7	5.1	D
	Right Turn	40	35	87.4%	32.8	8.7	C
	Subtotal	2,370	2,092	88.3%	48.5	5.0	D
Total		6,310	5,492	87.0%	56.9	5.4	E

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
AM Peak Hour

Intersection 11

























Power Inn Rd-Garity Dr/Sheldon Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	40	42	105.8%	72.1	14.9	E
	Through	140	125	89.1%	64.1	8.0	E
	Right Turn	30	29	98.1%	15.1	7.6	B
	Subtotal	210	197	93.6%	58.5	6.7	E
SB	Left Turn	200	212	105.8%	84.3	15.3	F
	Through	80	71	89.2%	55.3	12.7	E
	Right Turn	770	686	89.0%	122.4	30.9	F
	Subtotal	1,050	969	92.2%	109.5	23.7	F
EB	Left Turn	770	658	85.4%	36.5	2.5	D
	Through	1,190	1,048	88.1%	30.1	3.1	C
	Right Turn	100	88	88.0%	10.3	1.4	B
	Subtotal	2,060	1,794	87.1%	31.5	2.0	C
WB	Left Turn	40	31	78.2%	101.9	26.5	F
	Through	1,520	1,372	90.3%	106.7	15.5	F
	Right Turn	220	184	83.6%	94.1	15.8	F
	Subtotal	1,780	1,587	89.2%	105.2	15.2	F
Total		5,100	4,546	89.1%	74.9	5.9	E

HCM 2010 Signalized Intersection Summary
 12: Sheldon Rd & Elk Grove Florin Rd

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	800	640	180	90	520	110	180	1650	90	100	1150	880
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	860	688	48	97	559	29	194	1774	46	108	1237	735
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	686	1262	557	142	702	310	191	1882	585	141	1808	563
Arrive On Green	0.20	0.36	0.36	0.04	0.20	0.20	0.06	0.37	0.37	0.04	0.36	0.36
Sat Flow, veh/h	3408	3505	1547	3408	3505	1546	3408	5036	1567	3408	5036	1568
Grp Volume(v), veh/h	860	688	48	97	559	29	194	1774	46	108	1237	735
Grp Sat Flow(s),veh/h/ln	1704	1752	1547	1704	1752	1546	1704	1679	1567	1704	1679	1568
Q Serve(g_s), s	27.7	21.5	2.8	3.9	20.9	2.1	7.7	46.9	2.6	4.3	28.7	49.4
Cycle Q Clear(g_c), s	27.7	21.5	2.8	3.9	20.9	2.1	7.7	46.9	2.6	4.3	28.7	49.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	686	1262	557	142	702	310	191	1882	585	141	1808	563
V/C Ratio(X)	1.25	0.55	0.09	0.68	0.80	0.09	1.02	0.94	0.08	0.76	0.68	1.31
Avail Cap(c_a), veh/h	686	1381	609	211	892	393	191	1882	585	141	1808	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	35.1	29.1	65.0	52.3	44.8	64.9	41.7	27.8	65.3	37.5	44.1
Incr Delay (d2), s/veh	125.7	0.1	0.0	2.1	3.0	0.0	69.6	10.1	0.0	19.8	0.9	150.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.9	10.4	1.2	1.9	10.4	0.9	5.4	23.4	1.1	2.4	13.4	44.8
LnGrp Delay(d),s/veh	180.6	35.2	29.1	67.1	55.4	44.9	134.7	51.8	27.8	85.1	38.4	194.0
LnGrp LOS	F	D	C	E	E	D	F	D	C	F	D	F
Approach Vol, veh/h		1596			685			2014			2080	
Approach Delay, s/veh		113.4			56.6			59.2			95.8	
Approach LOS		F			E			E			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.0	55.7	34.0	33.9	12.0	57.7	12.0	55.8				
Change Period (Y+Rc), s	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3				
Max Green Setting (Gmax), s	7.7	49.4	27.7	35.0	5.7	51.4	8.5	54.2				
Max Q Clear Time (g_c+I1), s	9.7	51.4	29.7	22.9	6.3	48.9	5.9	23.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	4.5	0.0	2.4	0.0	6.1				
Intersection Summary												
HCM 2010 Ctrl Delay			84.4									
HCM 2010 LOS			F									

MOVEMENT SUMMARY

Site: 13 [Waterman Road/Sheldon Road-AM]

Bradshaw Road/Sheldon Road Intersection Improvements
 2035 Volumes (3% per year growth)
 AM Peak
 Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Bradshaw Road											
3	L2	204	3.0	1.446	229.3	LOS F	97.5	2495.2	1.00	4.42	7.9
8	T1	622	3.0	1.446	229.3	LOS F	97.5	2495.2	1.00	4.42	7.9
18	R2	51	3.0	1.446	229.3	LOS F	97.5	2495.2	1.00	4.42	7.8
Approach		878	3.0	1.446	229.3	LOS F	97.5	2495.2	1.00	4.42	7.9
East: Sheldon Road											
1	L2	31	3.0	0.789	29.9	LOS D	6.3	160.4	0.86	1.05	25.4
6	T1	398	3.0	0.789	29.9	LOS D	6.3	160.4	0.86	1.05	25.3
16	R2	20	3.0	0.789	29.9	LOS D	6.3	160.4	0.86	1.05	24.8
Approach		449	3.0	0.789	29.9	LOS D	6.3	160.4	0.86	1.05	25.3
North: Bradshaw Road											
7	L2	112	3.0	1.020	67.6	LOS F	21.8	558.8	1.00	1.82	17.8
4	T1	510	3.0	1.020	67.6	LOS F	21.8	558.8	1.00	1.82	17.8
14	R2	61	3.0	0.097	6.8	LOS A	0.3	8.2	0.51	0.48	33.1
Approach		684	3.0	1.020	62.2	LOS F	21.8	558.8	0.96	1.70	18.5
West: Sheldon Road											
5	L2	102	3.0	1.511	258.6	LOS F	102.7	2628.1	1.00	4.66	7.1
2	T1	602	3.0	1.511	258.6	LOS F	102.7	2628.1	1.00	4.66	7.1
12	R2	153	3.0	1.511	258.6	LOS F	102.7	2628.1	1.00	4.66	7.1
Approach		857	3.0	1.511	258.6	LOS F	102.7	2628.1	1.00	4.66	7.1
All Vehicles		2867	3.0	1.511	167.0	LOS F	102.7	2628.1	0.97	3.31	10.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

 Site: 14 [Bradshaw Road/Sheldon Road_AM]

Bradshaw Road/Sheldon Road Intersection Improvements
 2035 Volumes (3% per year growth)
 AM Peak
 Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows 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
South: Bradshaw Road											
3	L2	143	3.0	1.023	64.1	LOS F	26.1	668.1	1.00	1.80	18.3
8	T1	1255	3.0	1.023	64.1	LOS F	26.1	668.1	1.00	1.80	18.3
18	R2	41	3.0	1.023	64.1	LOS F	26.1	668.1	1.00	1.80	18.1
Approach		1439	3.0	1.023	64.1	LOS F	26.1	668.1	1.00	1.80	18.3
East: Sheldon Road											
1	L2	204	3.0	1.304	184.6	LOS F	41.9	1073.0	1.00	3.40	9.3
6	T1	265	3.0	1.304	184.6	LOS F	41.9	1073.0	1.00	3.40	9.3
16	R2	20	3.0	1.304	184.6	LOS F	41.9	1073.0	1.00	3.40	9.2
Approach		490	3.0	1.304	184.6	LOS F	41.9	1073.0	1.00	3.40	9.3
North: Bradshaw Road											
7	L2	20	3.0	0.974	53.8	LOS F	17.5	447.1	1.00	1.57	20.1
4	T1	1184	3.0	0.974	53.8	LOS F	17.5	447.1	1.00	1.57	20.0
14	R2	71	3.0	0.974	53.8	LOS F	17.5	447.1	1.00	1.57	19.6
Approach		1276	3.0	0.974	53.8	LOS F	17.5	447.1	1.00	1.57	20.0
West: Sheldon Road											
5	L2	194	3.0	1.638	321.7	LOS F	89.0	2277.5	1.00	5.07	6.0
2	T1	480	3.0	1.638	321.7	LOS F	89.0	2277.5	1.00	5.07	6.0
12	R2	61	3.0	0.160	12.0	LOS B	0.4	10.6	0.69	0.69	30.7
Approach		735	3.0	1.638	295.8	LOS F	89.0	2277.5	0.97	4.71	6.4
All Vehicles		3939	3.0	1.638	119.0	LOS F	89.0	2277.5	1.00	2.46	12.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.






















HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

HCM 2010 Signalized Intersection Summary
 15: Bader Rd & Sheldon Rd

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	470	60	40	330	100	60	470	60	80	320	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	43	500	64	43	351	106	64	500	64	85	340	106
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	67	495	63	67	420	127	82	612	78	109	536	167
Arrive On Green	0.04	0.31	0.31	0.04	0.31	0.31	0.05	0.38	0.38	0.06	0.40	0.40
Sat Flow, veh/h	1757	1603	205	1757	1361	411	1757	1603	205	1757	1350	421
Grp Volume(v), veh/h	43	0	564	43	0	457	64	0	564	85	0	446
Grp Sat Flow(s),veh/h/ln	1757	0	1808	1757	0	1772	1757	0	1808	1757	0	1770
Q Serve(g_s), s	2.0	0.0	25.6	2.0	0.0	19.9	3.0	0.0	23.2	4.0	0.0	16.8
Cycle Q Clear(g_c), s	2.0	0.0	25.6	2.0	0.0	19.9	3.0	0.0	23.2	4.0	0.0	16.8
Prop In Lane	1.00		0.11	1.00		0.23	1.00		0.11	1.00		0.24
Lane Grp Cap(c), veh/h	67	0	558	67	0	547	82	0	691	109	0	703
V/C Ratio(X)	0.65	0.00	1.01	0.65	0.00	0.84	0.78	0.00	0.82	0.78	0.00	0.63
Avail Cap(c_a), veh/h	161	0	558	161	0	547	163	0	691	163	0	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.4	0.0	28.7	39.4	0.0	26.7	39.1	0.0	23.0	38.4	0.0	20.1
Incr Delay (d2), s/veh	10.0	0.0	40.8	10.0	0.0	10.9	14.8	0.0	10.3	13.0	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	19.0	1.2	0.0	11.3	1.8	0.0	13.6	2.3	0.0	9.0
LnGrp Delay(d),s/veh	49.4	0.0	69.6	49.4	0.0	37.6	53.9	0.0	33.3	51.4	0.0	24.5
LnGrp LOS	D		F	D		D	D		C	D		C
Approach Vol, veh/h		607			500			628			531	
Approach Delay, s/veh		68.1			38.6			35.4			28.8	
Approach LOS		E			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	36.0	7.5	30.0	8.2	37.3	7.5	30.0				
Change Period (Y+Rc), s	4.3	4.3	4.4	4.4	4.3	4.3	4.4	4.4				
Max Green Setting (Gmax), s	7.7	31.7	7.6	25.6	7.7	31.7	7.6	25.6				
Max Q Clear Time (g_c+I1), s	6.0	25.2	4.0	27.6	5.0	18.8	4.0	21.9				
Green Ext Time (p_c), s	0.0	3.1	0.0	0.0	0.0	4.9	0.0	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			43.3									
HCM 2010 LOS			D									

























HCM 2010 Signalized Intersection Summary
 16: Grant Line Rd & Sheldon Rd

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	190	0	880	0	0	0	910	790	0	0	590	110
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	0	1845	0	1863	0	1863	1810	0	0	1810	1863
Adj Flow Rate, veh/h	207	0	856	0	0	0	989	859	0	0	641	0
Adj No. of Lanes	1	0	1	0	1	0	1	2	0	0	2	1
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
Percent Heavy Veh, %	1	0	3	0	2	0	2	5	0	0	5	2
Cap, veh/h	217	0	0	0	1	0	995	2755	0	0	702	324
Arrive On Green	0.12	0.00	0.00	0.00	0.00	0.00	0.56	0.80	0.00	0.00	0.20	0.00
Sat Flow, veh/h	1792	207		0	-83824	0	1774	3529	0	0	3529	1583
Grp Volume(v), veh/h	207	103.6		0	0	0	989	859	0	0	641	0
Grp Sat Flow(s),veh/h/ln	1792	F		0	1863	0	1774	1719	0	0	1719	1583
Q Serve(g_s), s	14.6			0.0	0.0	0.0	70.4	8.4	0.0	0.0	23.2	0.0
Cycle Q Clear(g_c), s	14.6			0.0	0.0	0.0	70.4	8.4	0.0	0.0	23.2	0.0
Prop In Lane	1.00			0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	217			0	1	0	995	2755	0	0	702	324
V/C Ratio(X)	0.96			0.00	0.00	0.00	0.99	0.31	0.00	0.00	0.91	0.00
Avail Cap(c_a), veh/h	217			0	263	0	995	2760	0	0	708	326
HCM Platoon Ratio	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00			0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	55.6			0.0	0.0	0.0	27.7	3.4	0.0	0.0	49.5	0.0
Incr Delay (d2), s/veh	48.0			0.0	0.0	0.0	27.0	0.1	0.0	0.0	16.2	0.0
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1			0.0	0.0	0.0	41.8	4.0	0.0	0.0	12.6	0.0
LnGrp Delay(d),s/veh	103.6			0.0	0.0	0.0	54.8	3.4	0.0	0.0	65.7	0.0
LnGrp LOS	F						D	A			E	
Approach Vol, veh/h					0			1848			641	
Approach Delay, s/veh					0.0			30.9			65.7	
Approach LOS								C			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4		6						
Phs Duration (G+Y+Rc), s	76.0	31.3	20.0	0.0		107.3						
Change Period (Y+Rc), s	4.6	5.3	4.6	4.5		5.3						
Max Green Setting (Gmax), s	71.4	26.2	15.4	18.0		102.2						
Max Q Clear Time (g_c+I1), s	72.4	25.2	16.6	0.0		10.4						
Green Ext Time (p_c), s	0.0	0.8	0.0	0.0		15.9						
Intersection Summary												
HCM 2010 Ctrl Delay			44.8									
HCM 2010 LOS			D									

























HCM 2010 Signalized Intersection Summary
 17: Franklin Blvd & Dwight Rd/Big Horn Blvd

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	40	190	330	80	490	100	1150	290	220	940	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	65	43	28	359	87	212	109	1250	189	239	1022	74
Adj No. of Lanes	2	2	1	2	1	1	1	3	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	160	484	208	440	406	335	138	1990	606	317	1436	619
Arrive On Green	0.05	0.14	0.14	0.13	0.22	0.22	0.08	0.40	0.40	0.09	0.41	0.41
Sat Flow, veh/h	3408	3505	1504	3408	1845	1520	1757	5036	1533	3408	3505	1511
Grp Volume(v), veh/h	65	43	28	359	87	212	109	1250	189	239	1022	74
Grp Sat Flow(s),veh/h/ln	1704	1752	1504	1704	1845	1520	1757	1679	1533	1704	1752	1511
Q Serve(g_s), s	1.5	0.9	1.3	8.5	3.2	10.4	5.0	16.5	7.0	5.6	20.0	2.5
Cycle Q Clear(g_c), s	1.5	0.9	1.3	8.5	3.2	10.4	5.0	16.5	7.0	5.6	20.0	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	160	484	208	440	406	335	138	1990	606	317	1436	619
V/C Ratio(X)	0.41	0.09	0.13	0.82	0.21	0.63	0.79	0.63	0.31	0.75	0.71	0.12
Avail Cap(c_a), veh/h	306	1488	638	521	899	741	166	2046	623	360	1462	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	31.0	31.2	35.0	26.3	29.1	37.3	20.1	17.2	36.5	20.3	15.1
Incr Delay (d2), s/veh	0.6	0.0	0.1	7.2	0.1	0.7	15.7	0.4	0.1	6.3	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.4	0.6	4.4	1.6	4.4	3.0	7.7	3.0	2.9	9.9	1.0
LnGrp Delay(d),s/veh	38.8	31.0	31.3	42.1	26.4	29.9	53.0	20.5	17.3	42.8	21.6	15.1
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		136			658			1548			1335	
Approach Delay, s/veh		34.8			36.1			22.4			25.1	
Approach LOS		C			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	38.1	15.2	16.9	11.1	39.3	8.5	23.6				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	8.7	33.5	12.6	35.0	7.8	34.4	7.4	40.2				
Max Q Clear Time (g_c+I1), s	7.6	18.5	10.5	3.3	7.0	22.0	3.5	12.4				
Green Ext Time (p_c), s	0.1	14.0	0.2	1.3	0.0	11.6	0.0	1.3				
Intersection Summary												
HCM 2010 Ctrl Delay			26.3									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
18: Bruceville Rd & Big Horn Blvd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	490	580	240	160	560	660	440	1640	180	410	1030	50
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	533	630	77	174	609	452	478	1783	87	446	1120	46
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	456	1269	554	221	1027	448	512	1615	490	385	1427	433
Arrive On Green	0.13	0.36	0.36	0.06	0.29	0.29	0.15	0.32	0.32	0.23	0.57	0.57
Sat Flow, veh/h	3408	3505	1532	3408	3505	1528	3408	5036	1529	3408	5036	1527
Grp Volume(v), veh/h	533	630	77	174	609	452	478	1783	87	446	1120	46
Grp Sat Flow(s),veh/h/ln	1704	1752	1532	1704	1752	1528	1704	1679	1529	1704	1679	1527
Q Serve(g_s), s	19.4	20.3	4.9	7.3	21.6	42.5	20.1	46.5	5.9	16.4	25.2	2.0
Cycle Q Clear(g_c), s	19.4	20.3	4.9	7.3	21.6	42.5	20.1	46.5	5.9	16.4	25.2	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	456	1269	554	221	1027	448	512	1615	490	385	1427	433
V/C Ratio(X)	1.17	0.50	0.14	0.79	0.59	1.01	0.93	1.10	0.18	1.16	0.78	0.11
Avail Cap(c_a), veh/h	456	1269	554	301	1027	448	512	1615	490	385	1427	433
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.11	0.11	0.11
Uniform Delay (d), s/veh	62.8	36.0	31.1	66.8	43.8	51.3	60.9	49.3	35.5	56.1	27.9	22.9
Incr Delay (d2), s/veh	97.3	0.1	0.0	6.3	0.6	44.9	23.9	56.6	0.8	74.2	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.3	9.8	2.1	3.6	10.5	23.6	11.2	30.0	2.6	11.6	11.6	0.8
LnGrp Delay(d),s/veh	160.1	36.1	31.1	73.1	44.5	96.2	84.8	105.9	36.3	130.3	28.4	23.0
LnGrp LOS	F	D	C	E	D	F	F	F	D	F	C	C
Approach Vol, veh/h		1240			1235			2348			1612	
Approach Delay, s/veh		89.1			67.5			99.0			56.5	
Approach LOS		F			E			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.4	46.6	24.0	48.0	21.0	52.0	14.0	58.0				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	21.8	41.1	19.4	42.5	16.4	46.5	12.8	49.1				
Max Q Clear Time (g_c+I1), s	22.1	27.2	21.4	44.5	18.4	48.5	9.3	22.3				
Green Ext Time (p_c), s	0.0	13.9	0.0	0.0	0.0	0.0	0.1	20.0				
Intersection Summary												
HCM 2010 Ctrl Delay			80.4									
HCM 2010 LOS			F									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
 19: Grant Line Rd & Wilton Rd

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	20	20	470	20	440	0	1010	280	250	880	20
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1863	1882	1900	1900	1792	1810	1810	1829	1900
Adj Flow Rate, veh/h	22	22	20	511	22	155	0	1098	301	272	957	22
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	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
Percent Heavy Veh, %	0	0	0	2	0	0	0	6	5	5	4	4
Cap, veh/h	36	40	36	420	52	364	1	1487	672	247	2118	49
Arrive On Green	0.02	0.04	0.04	0.24	0.26	0.26	0.00	0.44	0.44	0.14	0.61	0.61
Sat Flow, veh/h	1810	918	835	1774	199	1400	1810	3406	1538	1723	3472	80
Grp Volume(v), veh/h	22	0	42	511	0	177	0	1098	301	272	479	500
Grp Sat Flow(s),veh/h/ln	1810	0	1753	1774	0	1599	1810	1703	1538	1723	1737	1814
Q Serve(g_s), s	1.8	0.0	3.5	35.5	0.0	13.8	0.0	40.2	20.6	21.5	22.3	22.3
Cycle Q Clear(g_c), s	1.8	0.0	3.5	35.5	0.0	13.8	0.0	40.2	20.6	21.5	22.3	22.3
Prop In Lane	1.00		0.48	1.00		0.88	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	36	0	76	420	0	416	1	1487	672	247	1060	1107
V/C Ratio(X)	0.61	0.00	0.55	1.22	0.00	0.43	0.00	0.74	0.45	1.10	0.45	0.45
Avail Cap(c_a), veh/h	90	0	234	420	0	496	90	1487	672	247	1060	1107
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.78	0.78	0.42	0.42	0.42
Uniform Delay (d), s/veh	72.9	0.0	70.3	57.3	0.0	46.2	0.0	35.1	29.6	64.3	15.7	15.7
Incr Delay (d2), s/veh	15.3	0.0	6.2	117.6	0.0	0.7	0.0	2.6	1.7	67.8	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.8	31.1	0.0	6.2	0.0	19.4	9.1	14.9	10.8	11.3
LnGrp Delay(d),s/veh	88.2	0.0	76.5	174.9	0.0	46.9	0.0	37.7	31.3	132.1	16.3	16.3
LnGrp LOS	F		E	F		D		D	C	F	B	B
Approach Vol, veh/h		64			688			1399			1251	
Approach Delay, s/veh		80.6			142.0			36.3			41.5	
Approach LOS		F			F			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	97.5	40.0	12.5	26.0	71.5	7.5	45.0				
Change Period (Y+Rc), s	4.5	6.0	4.5	* 6	4.5	6.0	4.5	6.0				
Max Green Setting (Gmax), s	7.5	67.5	35.5	* 20	21.5	53.5	7.5	46.5				
Max Q Clear Time (g_c+I1), s	0.0	24.3	37.5	5.5	23.5	42.2	3.8	15.8				
Green Ext Time (p_c), s	0.0	24.6	0.0	1.0	0.0	9.2	0.0	1.3				
Intersection Summary												
HCM 2010 Ctrl Delay			60.4									
HCM 2010 LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
20: Harbour Point Dr & Laguna Blvd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	160	660	290	180	1440	180	1150	100	240	50	20	170
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	174	717	210	196	1565	150	1250	109	101	54	22	24
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	192	1572	477	247	1653	502	1257	1504	658	69	184	148
Arrive On Green	0.06	0.31	0.31	0.07	0.33	0.33	0.37	0.43	0.43	0.04	0.10	0.10
Sat Flow, veh/h	3408	5036	1529	3408	5036	1530	3408	3505	1534	1757	1845	1486
Grp Volume(v), veh/h	174	717	210	196	1565	150	1250	109	101	54	22	24
Grp Sat Flow(s),veh/h/ln	1704	1679	1529	1704	1679	1530	1704	1752	1534	1757	1845	1486
Q Serve(g_s), s	6.7	15.0	14.4	7.4	39.8	9.6	48.0	2.4	5.3	4.0	1.4	1.9
Cycle Q Clear(g_c), s	6.7	15.0	14.4	7.4	39.8	9.6	48.0	2.4	5.3	4.0	1.4	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	1572	477	247	1653	502	1257	1504	658	69	184	148
V/C Ratio(X)	0.91	0.46	0.44	0.79	0.95	0.30	0.99	0.07	0.15	0.78	0.12	0.16
Avail Cap(c_a), veh/h	192	1572	477	374	1684	512	1257	1848	809	137	436	351
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.6	36.2	36.0	59.9	43.0	32.8	41.3	22.1	22.9	62.5	53.8	54.1
Incr Delay (d2), s/veh	38.8	0.2	0.6	3.4	11.6	0.3	24.0	0.0	0.1	6.9	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	7.0	6.2	3.6	20.2	4.1	26.8	1.2	2.3	2.1	0.7	0.8
LnGrp Delay(d),s/veh	100.4	36.4	36.6	63.2	54.6	33.2	65.3	22.1	23.0	69.4	54.0	54.3
LnGrp LOS	F	D	D	E	D	C	E	C	C	E	D	D
Approach Vol, veh/h		1101			1911			1460			100	
Approach Delay, s/veh		46.6			53.8			59.1			62.4	
Approach LOS		D			D			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	48.6	53.0	17.7	14.1	46.5	9.8	60.9				
Change Period (Y+Rc), s	4.6	5.5	4.6	4.6	4.6	5.5	4.6	4.6				
Max Green Setting (Gmax), s	7.4	43.9	48.4	31.0	14.4	36.9	10.2	69.2				
Max Q Clear Time (g_c+I1), s	8.7	41.8	50.0	3.9	9.4	17.0	6.0	7.3				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.8	0.1	15.6	0.0	0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			53.9									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
 21: Babson Dr/Dwight Rd & Laguna Blvd

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	780	40	280	1600	130	140	20	390	40	20	30
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	87	848	26	304	1739	100	152	22	58	43	22	0
Adj No. of Lanes	2	3	1	2	3	1	1	1	0	1	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	196	1858	565	396	2154	656	188	90	238	70	485	217
Arrive On Green	0.06	0.37	0.37	0.12	0.43	0.43	0.11	0.21	0.21	0.04	0.14	0.00
Sat Flow, veh/h	3408	5036	1532	3408	5036	1534	1757	439	1157	1757	3505	1568
Grp Volume(v), veh/h	87	848	26	304	1739	100	152	0	80	43	22	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1532	1704	1679	1534	1757	0	1596	1757	1752	1568
Q Serve(g_s), s	1.8	9.2	0.8	6.2	21.6	2.9	6.1	0.0	3.0	1.7	0.4	0.0
Cycle Q Clear(g_c), s	1.8	9.2	0.8	6.2	21.6	2.9	6.1	0.0	3.0	1.7	0.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.73	1.00		1.00
Lane Grp Cap(c), veh/h	196	1858	565	396	2154	656	188	0	328	70	485	217
V/C Ratio(X)	0.44	0.46	0.05	0.77	0.81	0.15	0.81	0.00	0.24	0.61	0.05	0.00
Avail Cap(c_a), veh/h	357	1897	577	566	2206	672	216	0	764	184	1614	722
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.7	17.2	14.5	30.7	17.9	12.6	31.3	0.0	23.8	33.8	26.8	0.0
Incr Delay (d2), s/veh	0.6	0.2	0.0	2.2	2.3	0.1	15.5	0.0	0.1	3.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.3	0.3	3.0	10.4	1.2	3.7	0.0	1.3	0.9	0.2	0.0
LnGrp Delay(d),s/veh	33.3	17.3	14.6	32.9	20.2	12.7	46.8	0.0	24.0	37.0	26.8	0.0
LnGrp LOS	C	B	B	C	C	B	D		C	D	C	
Approach Vol, veh/h		961			2143			232				65
Approach Delay, s/veh		18.7			21.7			38.9				33.5
Approach LOS		B			C			D				C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.6	36.5	12.2	14.4	12.8	32.2	7.4	19.2				
Change Period (Y+Rc), s	4.5	5.8	4.5	4.5	4.5	5.8	4.5	4.5				
Max Green Setting (Gmax), s	7.5	31.4	8.8	33.0	11.9	27.0	7.5	34.3				
Max Q Clear Time (g_c+I1), s	3.8	23.6	8.1	2.4	8.2	11.2	3.7	5.0				
Green Ext Time (p_c), s	0.0	7.0	0.0	0.3	0.1	13.4	0.0	0.3				
Intersection Summary												
HCM 2010 Ctrl Delay			22.2									
HCM 2010 LOS			C									

























HCM 2010 Signalized Intersection Summary
22: Franklin Blvd & Laguna Blvd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	410	770	80	140	1070	140	350	830	200	180	810	460
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	446	837	39	152	1163	80	380	902	121	196	880	302
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	464	1766	537	203	1380	418	398	1117	487	246	975	425
Arrive On Green	0.14	0.35	0.35	0.06	0.27	0.27	0.12	0.32	0.32	0.07	0.28	0.28
Sat Flow, veh/h	3408	5036	1531	3408	5036	1526	3408	3505	1529	3408	3505	1526
Grp Volume(v), veh/h	446	837	39	152	1163	80	380	902	121	196	880	302
Grp Sat Flow(s),veh/h/ln	1704	1679	1531	1704	1679	1526	1704	1752	1529	1704	1752	1526
Q Serve(g_s), s	16.7	16.6	2.2	5.6	28.0	5.2	14.2	30.3	7.5	7.3	31.1	22.9
Cycle Q Clear(g_c), s	16.7	16.6	2.2	5.6	28.0	5.2	14.2	30.3	7.5	7.3	31.1	22.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	464	1766	537	203	1380	418	398	1117	487	246	975	425
V/C Ratio(X)	0.96	0.47	0.07	0.75	0.84	0.19	0.95	0.81	0.25	0.80	0.90	0.71
Avail Cap(c_a), veh/h	464	1766	537	279	1431	434	398	1117	487	265	982	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	32.5	27.8	59.4	44.0	35.7	56.4	40.1	32.4	58.6	44.7	41.7
Incr Delay (d2), s/veh	31.5	0.1	0.0	4.1	4.3	0.1	33.2	4.2	0.1	12.9	11.1	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	7.7	0.9	2.8	13.6	2.2	8.5	15.3	3.2	3.9	16.5	10.2
LnGrp Delay(d),s/veh	86.6	32.5	27.8	63.6	48.3	35.8	89.6	44.3	32.5	71.5	55.7	46.3
LnGrp LOS	F	C	C	E	D	D	F	D	C	E	E	D
Approach Vol, veh/h		1322			1395			1403			1378	
Approach Delay, s/veh		50.6			49.2			55.5			55.9	
Approach LOS		D			D			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.5	41.7	14.2	51.0	16.3	46.9	24.0	41.2				
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0	7.0	* 6	6.5	6.0				
Max Green Setting (Gmax), s	15.0	36.0	10.5	43.5	10.0	* 41	17.5	36.5				
Max Q Clear Time (g_c+I1), s	16.2	33.1	7.6	18.6	9.3	32.3	18.7	30.0				
Green Ext Time (p_c), s	0.0	2.6	0.1	22.7	0.0	7.8	0.0	5.2				
Intersection Summary												
HCM 2010 Ctrl Delay			52.9									
HCM 2010 LOS			D									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												
























HCM 2010 Signalized Intersection Summary
23: Bruceville Rd & Laguna Blvd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	500	1150	200	250	620	150	260	1530	210	170	1170	270
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	543	1250	155	272	674	74	283	1663	161	185	1272	221
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	388	1459	442	299	1326	402	282	1481	648	153	1336	584
Arrive On Green	0.11	0.29	0.29	0.09	0.26	0.26	0.08	0.42	0.42	0.04	0.38	0.38
Sat Flow, veh/h	3408	5036	1527	3408	5036	1525	3408	3505	1534	3408	3505	1533
Grp Volume(v), veh/h	543	1250	155	272	674	74	283	1663	161	185	1272	221
Grp Sat Flow(s),veh/h/ln	1704	1679	1527	1704	1679	1525	1704	1752	1534	1704	1752	1533
Q Serve(g_s), s	16.5	34.0	11.6	11.5	16.5	5.4	12.0	61.2	9.8	6.5	51.1	15.1
Cycle Q Clear(g_c), s	16.5	34.0	11.6	11.5	16.5	5.4	12.0	61.2	9.8	6.5	51.1	15.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	388	1459	442	299	1326	402	282	1481	648	153	1336	584
V/C Ratio(X)	1.40	0.86	0.35	0.91	0.51	0.18	1.00	1.12	0.25	1.21	0.95	0.38
Avail Cap(c_a), veh/h	388	1470	446	299	1338	405	282	1481	648	153	1343	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.2	48.6	40.7	65.5	45.4	41.3	66.4	41.8	27.0	69.2	43.5	32.4
Incr Delay (d2), s/veh	194.5	5.0	0.2	29.5	0.1	0.1	54.2	64.8	0.1	140.1	14.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.2	16.4	4.9	6.6	7.7	2.3	7.7	42.7	4.2	6.0	27.4	6.4
LnGrp Delay(d),s/veh	258.7	53.6	40.9	95.0	45.5	41.4	120.6	106.6	27.1	209.3	58.0	32.6
LnGrp LOS	F	D	D	F	D	D	F	F	C	F	E	C
Approach Vol, veh/h		1948			1020			2107			1678	
Approach Delay, s/veh		109.8			58.4			102.4			71.4	
Approach LOS		F			E			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	43.7	18.0	61.2	18.2	47.5	12.0	67.2				
Change Period (Y+Rc), s	5.5	5.5	6.0	* 6	5.5	5.5	5.5	6.0				
Max Green Setting (Gmax), s	16.5	38.5	12.0	* 56	12.7	42.3	6.5	61.0				
Max Q Clear Time (g_c+I1), s	18.5	18.5	14.0	53.1	13.5	36.0	8.5	63.2				
Green Ext Time (p_c), s	0.0	17.7	0.0	2.1	0.0	6.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			90.2									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
 24: Big Horn Blvd & Laguna Blvd

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	150	1280	90	320	1200	370	110	1020	350	520	620	210
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	163	1391	94	348	1304	276	120	1109	166	565	674	48
Adj No. of Lanes	2	4	0	2	3	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	202	1490	100	338	1430	434	171	1136	496	583	1559	683
Arrive On Green	0.06	0.24	0.24	0.10	0.28	0.28	0.05	0.32	0.32	0.17	0.44	0.44
Sat Flow, veh/h	3408	6105	412	3408	5036	1527	3408	3505	1530	3408	3505	1535
Grp Volume(v), veh/h	163	1084	401	348	1304	276	120	1109	166	565	674	48
Grp Sat Flow(s),veh/h/ln	1704	1586	1758	1704	1679	1527	1704	1752	1530	1704	1752	1535
Q Serve(g_s), s	5.9	27.9	28.0	12.4	31.3	19.7	4.3	39.1	10.3	20.6	16.5	2.2
Cycle Q Clear(g_c), s	5.9	27.9	28.0	12.4	31.3	19.7	4.3	39.1	10.3	20.6	16.5	2.2
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	202	1161	429	338	1430	434	171	1136	496	583	1559	683
V/C Ratio(X)	0.81	0.93	0.94	1.03	0.91	0.64	0.70	0.98	0.33	0.97	0.43	0.07
Avail Cap(c_a), veh/h	202	1161	429	338	1430	434	256	1136	496	583	1559	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.1	46.3	46.3	56.3	43.2	39.1	58.4	41.8	32.0	51.5	23.8	19.9
Incr Delay (d2), s/veh	19.7	14.6	30.0	56.7	10.3	7.0	1.9	21.1	0.1	29.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	13.8	17.2	8.5	15.9	9.2	2.1	22.3	4.4	12.0	8.0	1.0
LnGrp Delay(d),s/veh	77.8	60.8	76.3	113.0	53.6	46.1	60.4	62.9	32.2	80.6	23.9	19.9
LnGrp LOS	E	E	E	F	D	D	E	E	C	F	C	B
Approach Vol, veh/h		1648			1928			1395			1287	
Approach Delay, s/veh		66.3			63.2			59.0			48.7	
Approach LOS		E			E			E			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	41.0	10.9	61.1	17.0	36.0	26.0	46.0				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	7.4	35.5	9.4	52.5	12.4	30.5	21.4	40.5				
Max Q Clear Time (g_c+I1), s	7.9	33.3	6.3	18.5	14.4	30.0	22.6	41.1				
Green Ext Time (p_c), s	0.0	2.2	0.0	25.2	0.0	0.5	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			60.1									
HCM 2010 LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
AM Peak Hour

Intersection 25 W Stockton Blvd-Laguna Springs Dr/Laguna Blvd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	90	79	88.3%	44.1	7.0	D
	Through	70	71	100.9%	39.1	9.8	D
	Right Turn	300	298	99.4%	14.1	1.6	B
	Subtotal	460	448	97.4%	23.4	2.4	C
SB	Left Turn	120	110	91.7%	54.0	14.4	D
	Through	100	98	98.3%	33.2	5.0	C
	Right Turn	150	153	101.8%	10.7	3.3	B
	Subtotal	370	361	97.6%	30.3	5.6	C
EB	Left Turn	300	270	90.2%	50.9	10.5	D
	Through	1,470	1,316	89.5%	69.0	24.2	E
	Right Turn	320	314	98.2%	13.4	2.3	B
	Subtotal	2,090	1,900	90.9%	57.4	18.4	E
WB	Left Turn	630	609	96.7%	57.9	14.9	E
	Through	930	883	94.9%	23.0	2.3	C
	Right Turn	50	44	87.6%	7.5	2.5	A
	Subtotal	1,610	1,536	95.4%	36.6	6.3	D
Total		4,530	4,245	93.7%	43.9	10.2	D

Intersection 26 SR 99 SB Ramps/Laguna Blvd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	400	390	97.4%	25.2	5.4	C
	Through						
	Right Turn	520	524	100.7%	25.0	5.7	C
	Subtotal	920	913	99.3%	25.1	5.1	C
EB	Left Turn						
	Through	1,570	1,406	89.6%	22.9	15.4	C
	Right Turn	320	293	91.7%	9.8	5.0	A
	Subtotal	1,890	1,699	89.9%	20.7	13.6	C
WB	Left Turn						
	Through	1,090	1,018	93.4%	14.0	2.3	B
	Right Turn	230	202	88.0%	5.3	0.9	A
	Subtotal	1,320	1,220	92.4%	12.6	1.9	B
Total		4,130	3,833	92.8%	19.0	6.3	B

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
AM Peak Hour

Intersection 27 SR 99 NB Ramps/Bond Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	150	148	98.6%	18.7	2.8	B
	Through						
	Right Turn	310	300	96.7%	25.0	13.3	C
	Subtotal	460	448	97.4%	23.0	9.6	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,320	1,079	81.7%	49.3	51.7	D
	Right Turn	650	573	88.2%	16.0	16.1	B
	Subtotal	1,970	1,652	83.9%	37.8	39.6	D
WB	Left Turn						
	Through	1,170	1,069	91.4%	12.3	2.4	B
	Right Turn	420	342	81.4%	4.8	0.7	A
	Subtotal	1,590	1,411	88.8%	10.5	1.8	B
Total		4,020	3,511	87.3%	24.1	18.1	C

Intersection 28 E Stockton Blvd/Bond Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	230	216	93.9%	61.4	14.7	E
	Through	160	152	94.8%	64.2	16.2	E
	Right Turn	80	70	87.9%	22.9	14.9	C
	Subtotal	470	438	93.2%	56.0	16.0	E
SB	Left Turn	190	189	99.4%	56.8	5.6	E
	Through	120	128	107.0%	64.4	7.5	E
	Right Turn	40	39	96.6%	11.7	4.5	B
	Subtotal	350	356	101.7%	54.9	5.7	D
EB	Left Turn	190	171	90.1%	70.9	7.3	E
	Through	1,200	915	76.2%	124.1	45.2	F
	Right Turn	240	216	89.9%	10.7	5.7	B
	Subtotal	1,630	1,302	79.9%	98.7	34.5	F
WB	Left Turn	130	117	90.3%	73.2	35.5	E
	Through	1,320	1,173	88.8%	23.9	2.5	C
	Right Turn	360	305	84.7%	11.6	1.3	B
	Subtotal	1,810	1,595	88.1%	25.4	5.2	C
Total		4,260	3,691	86.6%	57.2	10.3	E

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
AM Peak Hour

Intersection 29

























Elk Crest Rd/Bond Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	250	231	92.4%	121.7	41.8	F
	Through	30	31	101.8%	98.3	43.1	F
	Right Turn	10	10	95.7%	83.0	74.8	F
	Subtotal	290	271	93.5%	117.6	42.8	F
SB	Left Turn	90	89	99.4%	60.5	6.5	E
	Through	20	23	114.1%	50.9	20.7	D
	Right Turn	140	139	99.6%	36.2	8.9	D
	Subtotal	250	252	100.7%	46.3	6.7	D
EB	Left Turn	310	235	75.9%	90.6	22.0	F
	Through	1,250	1,000	80.0%	19.2	3.4	B
	Right Turn	10	6	55.2%	12.0	19.7	B
	Subtotal	1,570	1,241	79.0%	33.2	5.4	C
WB	Left Turn	90	84	93.2%	128.9	21.2	F
	Through	1,480	1,271	85.9%	119.6	24.2	F
	Right Turn	120	94	78.5%	146.6	28.7	F
	Subtotal	1,690	1,449	85.8%	122.0	23.6	F
Total		3,800	3,213	84.6%	81.4	14.4	F

























HCM 2010 Signalized Intersection Summary
 30: Elk Grove Florin Rd & Bond Rd

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	590	580	110	560	1260	340	230	1050	260	200	1070	400
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	615	604	49	583	1312	177	240	1094	170	208	1115	200
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	515	1055	472	637	1168	516	220	1057	473	211	1048	462
Arrive On Green	0.15	0.30	0.30	0.19	0.33	0.33	0.06	0.30	0.30	0.06	0.30	0.30
Sat Flow, veh/h	3408	3505	1568	3408	3505	1548	3408	3505	1568	3408	3505	1545
Grp Volume(v), veh/h	615	604	49	583	1312	177	240	1094	170	208	1115	200
Grp Sat Flow(s),veh/h/ln	1704	1752	1568	1704	1752	1548	1704	1752	1568	1704	1752	1545
Q Serve(g_s), s	22.0	21.2	3.3	24.4	48.5	12.5	9.4	43.9	12.4	8.9	43.5	15.2
Cycle Q Clear(g_c), s	22.0	21.2	3.3	24.4	48.5	12.5	9.4	43.9	12.4	8.9	43.5	15.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	515	1055	472	637	1168	516	220	1057	473	211	1048	462
V/C Ratio(X)	1.19	0.57	0.10	0.92	1.12	0.34	1.09	1.03	0.36	0.99	1.06	0.43
Avail Cap(c_a), veh/h	515	1055	472	796	1168	516	220	1057	473	211	1048	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.8	42.9	36.7	58.0	48.5	36.5	68.1	50.8	39.8	68.2	51.0	41.1
Incr Delay (d2), s/veh	104.9	1.0	0.2	11.8	67.0	0.7	86.7	37.0	0.8	57.9	46.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.8	10.4	1.4	12.5	34.2	5.5	7.1	26.6	5.5	5.9	27.7	6.6
LnGrp Delay(d),s/veh	166.7	44.0	36.9	69.8	115.5	37.2	154.8	87.8	40.6	126.1	97.5	42.2
LnGrp LOS	F	D	D	E	F	D	F	F	D	F	F	D
Approach Vol, veh/h		1268			2072			1504			1523	
Approach Delay, s/veh		103.2			95.9			93.1			94.2	
Approach LOS		F			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.0	49.0	28.0	54.5	13.6	49.4	32.7	49.8				
Change Period (Y+Rc), s	4.6	5.5	6.0	* 6	4.6	5.5	5.5	6.0				
Max Green Setting (Gmax), s	9.4	43.5	22.0	* 49	9.0	43.9	34.0	36.5				
Max Q Clear Time (g_c+I1), s	11.4	45.5	24.0	50.5	10.9	45.9	26.4	23.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.8	11.9				
Intersection Summary												
HCM 2010 Ctrl Delay			96.3									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

























HCM 2010 Signalized Intersection Summary
 31: Waterman Rd & Bond Rd

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	880	280	70	1310	250	430	470	70	170	490	130
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1881	1881	1863	1881	1863	1881	1792	1863	1845	1881	1881
Adj Flow Rate, veh/h	115	1011	145	80	1506	200	494	540	23	195	563	12
Adj No. of Lanes	2	2	1	2	2	1	2	1	1	1	1	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	1	1	2	1	2	1	6	2	3	1	1
Cap, veh/h	162	1413	632	123	1375	608	485	561	495	195	534	453
Arrive On Green	0.05	0.40	0.40	0.04	0.38	0.38	0.14	0.31	0.31	0.11	0.28	0.28
Sat Flow, veh/h	3510	3574	1599	3442	3574	1579	3476	1792	1583	1757	1881	1596
Grp Volume(v), veh/h	115	1011	145	80	1506	200	494	540	23	195	563	12
Grp Sat Flow(s),veh/h/ln	1755	1787	1599	1721	1787	1579	1738	1792	1583	1757	1881	1596
Q Serve(g_s), s	4.5	33.2	8.4	3.2	53.5	12.4	19.4	41.2	1.4	15.4	39.5	0.8
Cycle Q Clear(g_c), s	4.5	33.2	8.4	3.2	53.5	12.4	19.4	41.2	1.4	15.4	39.5	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	162	1413	632	123	1375	608	485	561	495	195	534	453
V/C Ratio(X)	0.71	0.72	0.23	0.65	1.09	0.33	1.02	0.96	0.05	1.00	1.05	0.03
Avail Cap(c_a), veh/h	187	1413	632	183	1375	608	485	561	495	195	534	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.4	35.4	28.0	66.2	42.8	30.1	59.8	47.0	33.3	61.8	49.8	35.9
Incr Delay (d2), s/veh	7.5	1.9	0.3	2.2	54.5	0.4	45.6	28.6	0.0	65.0	53.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	16.7	3.8	1.6	36.8	5.5	12.4	24.9	0.6	11.0	28.5	0.3
LnGrp Delay(d),s/veh	72.8	37.4	28.2	68.3	97.3	30.6	105.4	75.6	33.3	126.9	103.5	35.9
LnGrp LOS	E	D	C	E	F	C	F	E	C	F	F	D
Approach Vol, veh/h		1271			1786			1057			770	
Approach Delay, s/veh		39.5			88.5			88.6			108.4	
Approach LOS		D			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	59.0	24.0	45.0	9.6	60.5	20.0	49.0				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	7.4	53.5	19.4	39.5	7.4	53.5	15.4	43.5				
Max Q Clear Time (g_c+I1), s	6.5	55.5	21.4	41.5	5.2	35.2	17.4	43.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	17.1	0.0	0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			78.9									
HCM 2010 LOS			E									











HCM 2010 Signalized Intersection Summary
32: Bradshaw Rd & Bond Rd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	420	420	220	140	500	180	280	1140	110	200	980	480
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	512	512	140	171	610	193	341	1390	118	244	1195	256
Adj No. of Lanes	2	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	496	1013	443	195	892	398	350	1338	591	253	1238	548
Arrive On Green	0.15	0.29	0.29	0.11	0.25	0.25	0.10	0.38	0.38	0.07	0.35	0.35
Sat Flow, veh/h	3408	3505	1532	1757	3505	1566	3408	3505	1548	3408	3505	1551
Grp Volume(v), veh/h	512	512	140	171	610	193	341	1390	118	244	1195	256
Grp Sat Flow(s),veh/h/ln	1704	1752	1532	1757	1752	1566	1704	1752	1548	1704	1752	1551
Q Serve(g_s), s	20.4	17.0	10.0	13.4	22.0	14.7	14.0	53.5	7.2	10.0	46.9	17.9
Cycle Q Clear(g_c), s	20.4	17.0	10.0	13.4	22.0	14.7	14.0	53.5	7.2	10.0	46.9	17.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	496	1013	443	195	892	398	350	1338	591	253	1238	548
V/C Ratio(X)	1.03	0.51	0.32	0.88	0.68	0.48	0.97	1.04	0.20	0.96	0.97	0.47
Avail Cap(c_a), veh/h	496	1038	454	306	1138	508	350	1338	591	253	1238	548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.9	41.5	39.0	61.4	47.2	44.4	62.7	43.3	29.0	64.7	44.5	35.1
Incr Delay (d2), s/veh	48.9	0.6	0.6	10.5	1.5	1.3	40.8	35.4	0.1	46.4	17.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	8.3	4.3	7.1	10.9	6.5	8.6	32.4	3.1	6.3	25.8	7.7
LnGrp Delay(d),s/veh	108.8	42.0	39.6	71.8	48.7	45.7	103.5	78.7	29.1	111.1	62.3	35.4
LnGrp LOS	F	D	D	E	D	D	F	F	C	F	E	D
Approach Vol, veh/h		1164			974			1849			1695	
Approach Delay, s/veh		71.1			52.2			80.1			65.2	
Approach LOS		E			D			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.0	41.2	15.0	59.0	20.2	46.0	19.0	55.0				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	20.4	45.5	10.4	53.5	24.4	41.5	14.4	49.5				
Max Q Clear Time (g_c+I1), s	22.4	24.0	12.0	55.5	15.4	19.0	16.0	48.9				
Green Ext Time (p_c), s	0.0	11.6	0.0	0.0	0.1	11.9	0.0	0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			69.0									
HCM 2010 LOS			E									























HCM 2010 Signalized Intersection Summary
33: Bond Rd & Bader Rd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Volume (veh/h)	480	240	350	80	30	430		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1900		
Adj Flow Rate, veh/h	558	279	407	93	35	500		
Adj No. of Lanes	1	1	1	0	0	0		
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86		
Percent Heavy Veh, %	3	3	3	3	0	0		
Cap, veh/h	463	1019	351	80	35	503		
Arrive On Green	0.26	0.55	0.24	0.24	0.34	0.34		
Sat Flow, veh/h	1757	1845	1454	332	103	1473		
Grp Volume(v), veh/h	558	279	0	500	536	0		
Grp Sat Flow(s),veh/h/ln	1757	1845	0	1786	1579	0		
Q Serve(g_s), s	23.7	7.2	0.0	21.7	30.5	0.0		
Cycle Q Clear(g_c), s	23.7	7.2	0.0	21.7	30.5	0.0		
Prop In Lane	1.00			0.19	0.07	0.93		
Lane Grp Cap(c), veh/h	463	1019	0	431	539	0		
V/C Ratio(X)	1.21	0.27	0.00	1.16	0.99	0.00		
Avail Cap(c_a), veh/h	463	1019	0	431	539	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	33.2	10.6	0.0	34.2	29.6	0.0		
Incr Delay (d2), s/veh	111.7	0.7	0.0	95.4	37.4	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	25.8	3.8	0.0	22.1	18.8	0.0		
LnGrp Delay(d),s/veh	144.8	11.3	0.0	129.5	66.9	0.0		
LnGrp LOS	F	B		F	E			
Approach Vol, veh/h		837	500		536			
Approach Delay, s/veh		100.3	129.5		66.9			
Approach LOS		F	F		E			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		54.0		36.0	28.0	26.0		
Change Period (Y+Rc), s		4.3		5.3	4.3	4.3		
Max Green Setting (Gmax), s		49.7		30.7	23.7	21.7		
Max Q Clear Time (g_c+I1), s		9.2		32.5	25.7	23.7		
Green Ext Time (p_c), s		5.0		0.0	0.0	0.0		
Intersection Summary								
HCM 2010 Ctrl Delay			98.6					
HCM 2010 LOS			F					
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary
 34: Grant Line Rd & Bond Rd/Wrangler Dr

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	230	20	30	10	20	20	50	1130	10	10	950	370
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1492	1900	1900	1776	1900	1624	1776	1863
Adj Flow Rate, veh/h	277	0	0	11	23	17	57	1284	11	11	1080	0
Adj No. of Lanes	2	0	1	0	1	0	1	2	1	1	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	7	0	17	7	2
Cap, veh/h	331	0	148	13	28	20	74	2227	1066	20	1127	1005
Arrive On Green	0.09	0.00	0.00	0.04	0.04	0.04	0.04	0.66	0.66	0.01	0.63	0.00
Sat Flow, veh/h	3619	0	1615	301	629	465	1810	3374	1615	1547	1776	1583
Grp Volume(v), veh/h	277	0	0	51	0	0	57	1284	11	11	1080	0
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1395	0	0	1810	1687	1615	1547	1776	1583
Q Serve(g_s), s	9.5	0.0	0.0	4.6	0.0	0.0	3.9	26.4	0.3	0.9	71.8	0.0
Cycle Q Clear(g_c), s	9.5	0.0	0.0	4.6	0.0	0.0	3.9	26.4	0.3	0.9	71.8	0.0
Prop In Lane	1.00		1.00	0.22		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	331	0	148	61	0	0	74	2227	1066	20	1127	1005
V/C Ratio(X)	0.84	0.00	0.00	0.83	0.00	0.00	0.77	0.58	0.01	0.56	0.96	0.00
Avail Cap(c_a), veh/h	343	0	153	165	0	0	86	2227	1066	70	1165	1039
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.6	0.0	0.0	60.0	0.0	0.0	60.1	11.8	7.4	62.1	21.6	0.0
Incr Delay (d2), s/veh	15.1	0.0	0.0	10.5	0.0	0.0	25.7	0.2	0.0	9.0	16.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.0	0.0	1.9	0.0	0.0	2.5	12.2	0.1	0.4	40.1	0.0
LnGrp Delay(d),s/veh	71.6	0.0	0.0	70.5	0.0	0.0	85.8	12.0	7.4	71.1	38.4	0.0
LnGrp LOS	E			E			F	B	A	E	D	
Approach Vol, veh/h		277			51			1352			1091	
Approach Delay, s/veh		71.6			70.5			15.1			38.7	
Approach LOS		E			E			B			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	86.3		17.6	7.9	89.5		11.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	* 6.3	6.0		6.0				
Max Green Setting (Gmax), s	6.0	83.0		12.0	* 5.7	83.0		15.0				
Max Q Clear Time (g_c+I1), s	5.9	73.8		11.5	2.9	28.4		6.6				
Green Ext Time (p_c), s	0.0	6.5		0.0	0.0	20.0		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			31.1									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary























35: Elk Grove Blvd & I-5 SB Ramps

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		  	 	 	  	  		
Volume (veh/h)	20	20	20	30	360	20		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	1845	1845		
Adj Flow Rate, veh/h	22	22	22	0	391	22		
Adj No. of Lanes	0	3	2	1	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	3	3	3	3	3	3		
Cap, veh/h	1185	2265	158	70	496	228		
Arrive On Green	0.67	0.67	0.04	0.00	0.15	0.15		
Sat Flow, veh/h	1757	3523	3597	1568	3408	1568		
Grp Volume(v), veh/h	22	22	22	0	391	22		
Grp Sat Flow(s),veh/h/ln	1757	1679	1752	1568	1704	1568		
Q Serve(g_s), s	0.4	0.2	0.6	0.0	11.1	1.2		
Cycle Q Clear(g_c), s	0.4	0.2	0.6	0.0	11.1	1.2		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	1185	2265	158	70	496	228		
V/C Ratio(X)	0.02	0.01	0.14	0.00	0.79	0.10		
Avail Cap(c_a), veh/h	1185	2265	866	387	1639	754		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.85	0.00	1.00	1.00		
Uniform Delay (d), s/veh	5.4	5.3	45.9	0.0	41.3	37.0		
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.0	2.9	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.3	0.0	5.4	0.5		
LnGrp Delay(d),s/veh	5.4	5.3	46.2	0.0	44.1	37.2		
LnGrp LOS	A	A	D		D	D		
Approach Vol, veh/h		44	22		413			
Approach Delay, s/veh		5.4	46.2		43.7			
Approach LOS		A	D		D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		71.8		19.4		8.8		
Change Period (Y+Rc), s		4.3		4.9		4.3		
Max Green Setting (Gmax), s		13.7		48.1		24.7		
Max Q Clear Time (g_c+I1), s		2.4		13.1		2.6		
Green Ext Time (p_c), s		0.1		1.5		0.1		
Intersection Summary								
HCM 2010 Ctrl Delay			40.3					
HCM 2010 LOS			D					

HCM 2010 Signalized Intersection Summary
 36: NB Ramps & Elk Grove Blvd

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 			 				
Volume (veh/h)	20	360	0	0	30	2060	20	0	480	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	22	391	0	0	33	0	0	0	546			
Adj No. of Lanes	1	3	0	0	2	1	0	1	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	40	3411	0	0	2256	959	0	418	689			
Arrive On Green	0.01	0.22	0.00	0.00	0.61	0.00	0.00	0.00	0.23			
Sat Flow, veh/h	1757	5202	0	0	3689	1568	0	1845	3043			
Grp Volume(v), veh/h	22	391	0	0	33	0	0	0	546			
Grp Sat Flow(s),veh/h/ln	1757	1679	0	0	1845	1568	0	1845	1521			
Q Serve(g_s), s	1.2	6.2	0.0	0.0	0.4	0.0	0.0	0.0	16.9			
Cycle Q Clear(g_c), s	1.2	6.2	0.0	0.0	0.4	0.0	0.0	0.0	16.9			
Prop In Lane	1.00		0.00	0.00		1.00	0.00		1.00			
Lane Grp Cap(c), veh/h	40	3411	0	0	2256	959	0	418	689			
V/C Ratio(X)	0.55	0.11	0.00	0.00	0.01	0.00	0.00	0.00	0.79			
Avail Cap(c_a), veh/h	135	3411	0	0	2256	959	0	714	1177			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.81	0.81	0.00	0.00	0.69	0.00	0.00	0.00	1.00			
Uniform Delay (d), s/veh	49.1	14.9	0.0	0.0	7.6	0.0	0.0	0.0	36.4			
Incr Delay (d2), s/veh	9.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.7	2.9	0.0	0.0	0.2	0.0	0.0	0.0	7.3			
LnGrp Delay(d),s/veh	58.2	15.0	0.0	0.0	7.6	0.0	0.0	0.0	38.5			
LnGrp LOS	E	B			A				D			
Approach Vol, veh/h		413			33			546				
Approach Delay, s/veh		17.3			7.6			38.5				
Approach LOS		B			A			D				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		72.0			6.6	65.5		28.0				
Change Period (Y+Rc), s		4.3			4.3	4.3		5.3				
Max Green Setting (Gmax), s		51.7			7.7	39.7		38.7				
Max Q Clear Time (g_c+I1), s		8.2			3.2	2.4		18.9				
Green Ext Time (p_c), s		2.8			0.0	2.8		2.2				
Intersection Summary												
HCM 2010 Ctrl Delay				28.7								
HCM 2010 LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												













HCM 2010 Signalized Intersection Summary
 37: W Taron Dr/Harbour Point Dr & Elk Grove Blvd

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	550	210	200	1420	690	390	160	150	430	100	280
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	83	573	169	208	1479	624	406	167	84	448	104	37
Adj No. of Lanes	2	3	1	2	3	1	2	1	1	2	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	153	2241	697	275	2420	744	474	224	188	514	246	208
Arrive On Green	0.09	0.89	0.89	0.08	0.48	0.48	0.14	0.12	0.12	0.15	0.13	0.13
Sat Flow, veh/h	3408	5036	1566	3408	5036	1547	3408	1845	1549	3408	1845	1561
Grp Volume(v), veh/h	83	573	169	208	1479	624	406	167	84	448	104	37
Grp Sat Flow(s),veh/h/ln	1704	1679	1566	1704	1679	1547	1704	1845	1549	1704	1845	1561
Q Serve(g_s), s	2.3	1.6	1.5	6.0	21.6	35.1	11.6	8.7	5.0	12.8	5.2	2.1
Cycle Q Clear(g_c), s	2.3	1.6	1.5	6.0	21.6	35.1	11.6	8.7	5.0	12.8	5.2	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	153	2241	697	275	2420	744	474	224	188	514	246	208
V/C Ratio(X)	0.54	0.26	0.24	0.76	0.61	0.84	0.86	0.75	0.45	0.87	0.42	0.18
Avail Cap(c_a), veh/h	627	2241	697	457	2420	744	627	323	271	627	323	273
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.5	3.1	3.1	45.0	19.1	22.6	42.1	42.4	40.8	41.5	39.8	38.5
Incr Delay (d2), s/veh	1.1	0.3	0.8	1.6	1.2	11.0	7.1	4.3	1.2	9.6	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.7	0.8	2.9	10.3	17.2	5.9	4.7	2.2	6.7	2.7	0.9
LnGrp Delay(d),s/veh	45.6	3.4	3.9	46.6	20.3	33.6	49.2	46.7	42.0	51.1	40.7	38.8
LnGrp LOS	D	A	A	D	C	C	D	D	D	D	D	D
Approach Vol, veh/h		825			2311			657				589
Approach Delay, s/veh		7.8			26.2			47.7				48.5
Approach LOS		A			C			D				D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	53.6	18.5	18.8	12.7	50.0	19.7	17.6				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	18.4	25.5	18.4	17.5	13.4	30.5	18.4	17.5				
Max Q Clear Time (g_c+I1), s	4.3	37.1	13.6	7.2	8.0	3.6	14.8	10.7				
Green Ext Time (p_c), s	0.1	0.0	0.3	1.1	0.1	20.0	0.2	0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			29.0									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
 38: Elk Grove Blvd & Four Winds Dr

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Volume (veh/h)	70	1510	2200	480	680	140		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845		
Adj Flow Rate, veh/h	74	1606	2340	362	723	29		
Adj No. of Lanes	1	3	3	1	2	1		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	3	3	3	3	3	3		
Cap, veh/h	96	3129	2524	782	798	367		
Arrive On Green	0.05	0.62	0.50	0.50	0.23	0.23		
Sat Flow, veh/h	1757	5202	5202	1560	3408	1568		
Grp Volume(v), veh/h	74	1606	2340	362	723	29		
Grp Sat Flow(s),veh/h/ln	1757	1679	1679	1560	1704	1568		
Q Serve(g_s), s	2.9	12.4	30.3	10.5	14.4	1.0		
Cycle Q Clear(g_c), s	2.9	12.4	30.3	10.5	14.4	1.0		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	96	3129	2524	782	798	367		
V/C Ratio(X)	0.77	0.51	0.93	0.46	0.91	0.08		
Avail Cap(c_a), veh/h	286	3129	2524	782	798	367		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	1.00		
Uniform Delay (d), s/veh	32.7	7.4	16.3	11.3	26.0	20.9		
Incr Delay (d2), s/veh	4.9	0.6	0.8	0.2	13.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.5	5.8	14.1	4.6	8.2	0.4		
LnGrp Delay(d),s/veh	37.6	8.0	17.1	11.5	39.6	20.9		
LnGrp LOS	D	A	B	B	D	C		
Approach Vol, veh/h		1680	2702		752			
Approach Delay, s/veh		9.3	16.3		38.9			
Approach LOS		A	B		D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.4	40.6				49.0		21.0
Change Period (Y+Rc), s	4.6	5.5				5.5		4.6
Max Green Setting (Gmax), s	11.4	27.5				43.5		16.4
Max Q Clear Time (g_c+I1), s	4.9	32.3				14.4		16.4
Green Ext Time (p_c), s	0.0	0.0				28.0		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			17.3					
HCM 2010 LOS			B					
Notes								
User approved pedestrian interval to be less than phase max green.								






















HCM 2010 Signalized Intersection Summary
 39: Franklin Blvd & Elk Grove Blvd

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	150	1490	760	120	1350	340	1210	880	220	300	350	220
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	163	1620	619	130	1467	161	1315	957	112	326	380	15
Adj No. of Lanes	2	3	2	2	3	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	235	1763	1263	196	1705	518	1034	1080	471	395	424	181
Arrive On Green	0.07	0.35	0.35	0.06	0.34	0.34	0.30	0.31	0.31	0.12	0.12	0.12
Sat Flow, veh/h	3408	5036	2695	3408	5036	1530	3408	3505	1529	3408	3505	1497
Grp Volume(v), veh/h	163	1620	619	130	1467	161	1315	957	112	326	380	15
Grp Sat Flow(s),veh/h/ln	1704	1679	1347	1704	1679	1530	1704	1752	1529	1704	1752	1497
Q Serve(g_s), s	5.6	37.0	19.1	4.5	32.6	9.3	36.4	31.2	6.6	11.2	12.8	1.1
Cycle Q Clear(g_c), s	5.6	37.0	19.1	4.5	32.6	9.3	36.4	31.2	6.6	11.2	12.8	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	1763	1263	196	1705	518	1034	1080	471	395	424	181
V/C Ratio(X)	0.69	0.92	0.49	0.66	0.86	0.31	1.27	0.89	0.24	0.82	0.90	0.08
Avail Cap(c_a), veh/h	494	1763	1263	494	1705	518	1034	1080	471	494	424	181
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	37.4	22.2	55.4	37.0	29.3	41.8	39.5	31.0	51.8	52.0	46.8
Incr Delay (d2), s/veh	1.0	7.0	1.0	1.4	5.9	1.6	130.0	8.7	0.1	7.3	20.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	18.3	7.2	2.2	16.0	4.2	35.8	16.3	2.8	5.7	7.4	0.4
LnGrp Delay(d),s/veh	55.6	44.4	23.2	56.9	43.0	30.9	171.8	48.2	31.1	59.2	72.8	46.9
LnGrp LOS	E	D	C	E	D	C	F	D	C	E	E	D
Approach Vol, veh/h		2402			1758			2384			721	
Approach Delay, s/veh		39.7			42.9			115.6			66.1	
Approach LOS		D			D			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.9	46.1	41.0	20.0	11.5	47.5	18.5	42.5				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	17.4	31.5	36.4	14.5	17.4	31.5	17.4	33.5				
Max Q Clear Time (g_c+I1), s	7.6	34.6	38.4	14.8	6.5	39.0	13.2	33.2				
Green Ext Time (p_c), s	0.7	0.0	0.0	0.0	0.5	0.0	0.7	0.3				
Intersection Summary												
HCM 2010 Ctrl Delay			68.0									
HCM 2010 LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
40: Backer Ranch Dr & Elk Grove Blvd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	2260	80	50	1500	20	100	20	140	40	30	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	45	2568	89	57	1705	23	114	23	87	45	34	20
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	58	3336	115	74	3462	47	141	32	122	58	54	32
Arrive On Green	0.03	0.67	0.67	0.08	1.00	1.00	0.08	0.10	0.10	0.03	0.05	0.05
Sat Flow, veh/h	1757	4999	172	1757	5121	69	1757	332	1256	1757	1083	637
Grp Volume(v), veh/h	45	1718	939	57	1118	610	114	0	110	45	0	54
Grp Sat Flow(s),veh/h/ln	1757	1679	1814	1757	1679	1832	1757	0	1588	1757	0	1720
Q Serve(g_s), s	3.1	41.9	42.8	3.8	0.0	0.0	7.7	0.0	8.1	3.0	0.0	3.7
Cycle Q Clear(g_c), s	3.1	41.9	42.8	3.8	0.0	0.0	7.7	0.0	8.1	3.0	0.0	3.7
Prop In Lane	1.00		0.09	1.00		0.04	1.00		0.79	1.00		0.37
Lane Grp Cap(c), veh/h	58	2240	1210	74	2270	1239	141	0	154	58	0	85
V/C Ratio(X)	0.77	0.77	0.78	0.77	0.49	0.49	0.81	0.00	0.72	0.77	0.00	0.63
Avail Cap(c_a), veh/h	299	2240	1210	299	2270	1239	299	0	204	299	0	221
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.77	0.77	0.77	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.6	13.6	13.8	54.4	0.0	0.0	54.3	0.0	52.6	57.6	0.0	55.9
Incr Delay (d2), s/veh	7.9	2.6	4.9	4.9	0.6	1.1	4.1	0.0	4.4	7.8	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	19.9	22.8	1.9	0.2	0.4	3.9	0.0	3.7	1.6	0.0	1.8
LnGrp Delay(d),s/veh	65.5	16.2	18.7	59.3	0.6	1.1	58.4	0.0	57.0	65.3	0.0	58.8
LnGrp LOS	E	B	B	E	A	A	E		E	E		E
Approach Vol, veh/h		2702			1785			224				99
Approach Delay, s/veh		17.9			2.6			57.7				61.8
Approach LOS		B			A			E				E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	85.6	14.2	10.6	8.6	86.6	8.6	16.2				
Change Period (Y+Rc), s	4.6	5.5	4.6	4.6	4.6	5.5	4.6	4.6				
Max Green Setting (Gmax), s	20.4	44.5	20.4	15.4	20.4	44.5	20.4	15.4				
Max Q Clear Time (g_c+I1), s	5.8	44.8	9.7	5.7	5.1	2.0	5.0	10.1				
Green Ext Time (p_c), s	0.1	0.0	0.2	0.3	0.1	41.1	0.1	0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			15.0									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
41: Bruceville Rd & Elk Grove Blvd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	280	1830	140	290	990	220	150	1040	260	360	770	210
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	304	1989	85	315	1076	138	163	1130	109	391	837	140
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	324	1831	557	267	1748	531	220	1608	444	334	1787	494
Arrive On Green	0.19	0.73	0.73	0.08	0.35	0.35	0.06	0.29	0.29	0.09	0.32	0.32
Sat Flow, veh/h	3408	5036	1532	3408	5036	1531	3514	5534	1527	3514	5534	1530
Grp Volume(v), veh/h	304	1989	85	315	1076	138	163	1130	109	391	837	140
Grp Sat Flow(s),veh/h/ln	1704	1679	1532	1704	1679	1531	1757	1845	1527	1757	1845	1530
Q Serve(g_s), s	10.6	43.6	2.0	9.4	21.3	7.8	5.5	21.8	6.5	11.4	14.5	8.2
Cycle Q Clear(g_c), s	10.6	43.6	2.0	9.4	21.3	7.8	5.5	21.8	6.5	11.4	14.5	8.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	324	1831	557	267	1748	531	220	1608	444	334	1787	494
V/C Ratio(X)	0.94	1.09	0.15	1.18	0.62	0.26	0.74	0.70	0.25	1.17	0.47	0.28
Avail Cap(c_a), veh/h	324	1831	557	267	1748	531	246	1637	452	334	1787	494
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	16.4	10.7	55.3	32.5	28.1	55.3	38.0	32.5	54.3	32.4	30.3
Incr Delay (d2), s/veh	19.6	43.6	0.3	104.1	1.1	0.8	8.3	1.1	0.1	104.4	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	26.7	0.9	8.3	10.0	3.4	2.9	11.3	2.8	10.4	7.4	3.5
LnGrp Delay(d),s/veh	67.9	59.9	10.9	159.4	33.6	28.9	63.6	39.1	32.6	158.7	32.5	30.4
LnGrp LOS	E	F	B	F	C	C	E	D	C	F	C	C
Approach Vol, veh/h		2378			1529			1402			1368	
Approach Delay, s/veh		59.2			59.1			41.4			68.3	
Approach LOS		E			E			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	47.6	12.1	44.2	14.0	49.6	16.0	40.4				
Change Period (Y+Rc), s	4.6	6.0	4.6	5.5	4.6	* 6	4.6	5.5				
Max Green Setting (Gmax), s	11.4	41.0	8.4	38.5	9.4	* 44	11.4	35.5				
Max Q Clear Time (g_c+I1), s	12.6	23.3	7.5	16.5	11.4	45.6	13.4	23.8				
Green Ext Time (p_c), s	0.0	17.6	0.1	20.6	0.0	0.0	0.0	11.0				
Intersection Summary												
HCM 2010 Ctrl Delay			57.3									
HCM 2010 LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
42: Elk Grove Blvd & Wymark Dr

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	2200	50	90	1480	210	50	30	70	200	10	50
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.94	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1900	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	33	2391	29	98	1609	217	54	33	30	225	0	20
Adj No. of Lanes	1	3	1	1	3	0	0	1	1	2	0	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	49	2686	809	123	2532	340	101	61	134	388	0	165
Arrive On Green	0.02	0.36	0.36	0.14	1.00	1.00	0.09	0.09	0.09	0.11	0.00	0.11
Sat Flow, veh/h	1757	5036	1517	1757	4472	601	1110	679	1480	3514	0	1492
Grp Volume(v), veh/h	33	2391	29	98	1207	619	87	0	30	225	0	20
Grp Sat Flow(s),veh/h/ln	1757	1679	1517	1757	1679	1715	1789	0	1480	1757	0	1492
Q Serve(g_s), s	2.2	53.7	1.5	6.5	0.0	0.0	5.6	0.0	2.3	7.3	0.0	1.5
Cycle Q Clear(g_c), s	2.2	53.7	1.5	6.5	0.0	0.0	5.6	0.0	2.3	7.3	0.0	1.5
Prop In Lane	1.00		1.00	1.00		0.35	0.62		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	49	2686	809	123	1901	971	162	0	134	388	0	165
V/C Ratio(X)	0.68	0.89	0.04	0.80	0.63	0.64	0.54	0.00	0.22	0.58	0.00	0.12
Avail Cap(c_a), veh/h	224	2686	809	240	1901	971	394	0	326	773	0	328
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.48	0.48	0.48	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.3	35.2	18.5	50.8	0.0	0.0	52.2	0.0	50.6	50.7	0.0	48.1
Incr Delay (d2), s/veh	1.5	0.5	0.0	5.7	0.8	1.5	2.7	0.0	0.8	1.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	25.1	0.6	3.3	0.2	0.4	2.9	0.0	1.0	3.6	0.0	0.6
LnGrp Delay(d),s/veh	59.8	35.7	18.5	56.5	0.8	1.5	54.9	0.0	51.5	52.1	0.0	48.5
LnGrp LOS	E	D	B	E	A	A	D		D	D		D
Approach Vol, veh/h		2453			1924			117			245	
Approach Delay, s/veh		35.9			3.9			54.0			51.8	
Approach LOS		D			A			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	74.6		16.5	14.0	70.7		18.9				
Change Period (Y+Rc), s	6.7	6.7		5.6	5.6	6.7		5.6				
Max Green Setting (Gmax), s	15.3	27.3		26.4	16.4	27.3		26.4				
Max Q Clear Time (g_c+I1), s	4.2	2.0		7.6	8.5	55.7		9.3				
Green Ext Time (p_c), s	0.1	24.7		0.6	0.2	0.0		1.5				
Intersection Summary												
HCM 2010 Ctrl Delay			24.1									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												























HCM 2010 Signalized Intersection Summary
43: Big Horn Blvd & Elk Grove Blvd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	200	1810	550	160	1300	420	450	990	290	340	770	130
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	217	1967	523	174	1413	378	489	1076	56	370	837	19
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	269	1909	581	182	1780	541	494	1037	452	352	891	387
Arrive On Green	0.16	0.76	0.76	0.05	0.35	0.35	0.14	0.30	0.30	0.10	0.25	0.25
Sat Flow, veh/h	3408	5036	1532	3408	5036	1531	3408	3505	1528	3408	3505	1524
Grp Volume(v), veh/h	217	1967	523	174	1413	378	489	1076	56	370	837	19
Grp Sat Flow(s),veh/h/ln	1704	1679	1532	1704	1679	1531	1704	1752	1528	1704	1752	1524
Q Serve(g_s), s	7.4	45.5	31.2	6.1	30.3	25.4	17.2	35.5	3.2	12.4	28.1	1.1
Cycle Q Clear(g_c), s	7.4	45.5	31.2	6.1	30.3	25.4	17.2	35.5	3.2	12.4	28.1	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	269	1909	581	182	1780	541	494	1037	452	352	891	387
V/C Ratio(X)	0.81	1.03	0.90	0.96	0.79	0.70	0.99	1.04	0.12	1.05	0.94	0.05
Avail Cap(c_a), veh/h	295	1909	581	182	1780	541	494	1037	452	352	891	387
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.16	0.16	0.16	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	14.5	12.8	56.7	34.9	33.3	51.2	42.3	30.9	53.8	43.8	33.8
Incr Delay (d2), s/veh	2.2	17.5	4.0	53.8	3.7	7.3	28.8	32.3	0.0	61.8	17.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	22.9	13.3	4.2	14.6	11.9	10.1	21.8	1.4	8.8	15.7	0.5
LnGrp Delay(d),s/veh	51.8	32.0	16.8	110.5	38.6	40.6	80.0	74.5	30.9	115.6	61.0	33.8
LnGrp LOS	D	F	B	F	D	D	F	F	C	F	E	C
Approach Vol, veh/h		2707			1965			1621			1226	
Approach Delay, s/veh		30.6			45.4			74.7			77.1	
Approach LOS		C			D			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.1	47.9	22.0	36.0	11.0	51.0	17.0	41.0				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	10.4	41.5	17.4	30.5	6.4	45.5	12.4	35.5				
Max Q Clear Time (g_c+I1), s	9.4	32.3	19.2	30.1	8.1	47.5	14.4	37.5				
Green Ext Time (p_c), s	0.1	9.2	0.0	0.4	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			51.5									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
50: Elk Grove Florin Rd & Elk Grove Blvd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	770	600	230	190	710	50	390	530	90	100	450	600
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.93	1.00		0.96	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	856	667	54	211	789	52	433	589	90	111	500	411
Adj No. of Lanes	2	2	1	1	2	0	1	1	0	1	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	797	1133	485	232	735	48	411	576	88	103	688	463
Arrive On Green	0.23	0.32	0.32	0.13	0.22	0.22	0.23	0.37	0.37	0.06	0.20	0.20
Sat Flow, veh/h	3408	3505	1502	1757	3321	219	1757	1553	237	1757	3505	1307
Grp Volume(v), veh/h	856	667	54	211	416	425	433	0	679	111	500	411
Grp Sat Flow(s),veh/h/ln	1704	1752	1502	1757	1752	1787	1757	0	1790	1757	1752	1307
Q Serve(g_s), s	37.4	25.5	4.0	19.0	35.4	35.4	37.4	0.0	59.4	9.4	21.4	31.4
Cycle Q Clear(g_c), s	37.4	25.5	4.0	19.0	35.4	35.4	37.4	0.0	59.4	9.4	21.4	31.4
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	797	1133	485	232	388	395	411	0	664	103	688	463
V/C Ratio(X)	1.07	0.59	0.11	0.91	1.07	1.07	1.05	0.00	1.02	1.08	0.73	0.89
Avail Cap(c_a), veh/h	797	1133	485	323	388	395	411	0	664	103	688	463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.3	45.3	38.0	68.5	62.3	62.3	61.3	0.0	50.3	75.3	60.3	52.2
Incr Delay (d2), s/veh	53.8	0.6	0.0	19.5	66.7	66.5	59.5	0.0	40.6	110.4	3.4	17.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.5	12.4	1.7	10.5	24.3	24.8	24.9	0.0	36.8	7.7	10.7	19.6
LnGrp Delay(d),s/veh	115.1	45.8	38.0	88.0	129.0	128.8	120.8	0.0	90.9	185.9	63.7	70.1
LnGrp LOS	F	D	D	F	F	F	F		F	F	E	E
Approach Vol, veh/h		1577			1052			1112			1022	
Approach Delay, s/veh		83.2			120.7			102.5			79.5	
Approach LOS		F			F			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	42.0	40.0	42.0	36.0	25.7	56.3	14.0	64.0				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	37.4	35.4	37.4	31.4	29.4	43.4	9.4	57.4				
Max Q Clear Time (g_c+I1), s	39.4	37.4	39.4	33.4	21.0	27.5	11.4	61.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	6.6	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			95.2									
HCM 2010 LOS			F									
























HCM 2010 Signalized Intersection Summary
51: Waterman Rd & Elk Grove Blvd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	380	330	230	750	310	230	470	80	180	700	120
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1881	1900	1863	1881	1845	1845	1792	1881	1827	1900
Adj Flow Rate, veh/h	94	447	314	271	882	269	271	553	55	212	824	40
Adj No. of Lanes	1	1	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.77
Percent Heavy Veh, %	3	2	1	0	2	1	3	3	6	1	4	0
Cap, veh/h	119	552	473	179	1160	470	300	1086	471	242	951	441
Arrive On Green	0.07	0.30	0.30	0.10	0.33	0.33	0.17	0.31	0.31	0.13	0.27	0.27
Sat Flow, veh/h	1757	1863	1597	1810	3539	1435	1757	3505	1522	1792	3471	1610
Grp Volume(v), veh/h	94	447	314	271	882	269	271	553	55	212	824	40
Grp Sat Flow(s),veh/h/ln	1757	1863	1597	1810	1770	1435	1757	1752	1522	1792	1736	1610
Q Serve(g_s), s	6.1	25.6	19.8	11.4	25.7	17.8	17.4	14.9	3.0	13.4	26.0	2.1
Cycle Q Clear(g_c), s	6.1	25.6	19.8	11.4	25.7	17.8	17.4	14.9	3.0	13.4	26.0	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	119	552	473	179	1160	470	300	1086	471	242	951	441
V/C Ratio(X)	0.79	0.81	0.66	1.51	0.76	0.57	0.90	0.51	0.12	0.88	0.87	0.09
Avail Cap(c_a), veh/h	266	703	603	179	1160	470	419	1170	508	365	1038	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	37.5	35.4	51.8	34.6	32.0	46.7	32.5	28.4	48.8	39.8	31.1
Incr Delay (d2), s/veh	11.0	4.4	0.9	256.5	2.7	1.1	14.7	0.1	0.0	10.3	6.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	13.8	8.8	18.5	12.9	7.2	9.7	7.2	1.2	7.3	13.4	1.0
LnGrp Delay(d),s/veh	63.9	41.8	36.3	308.3	37.3	33.1	61.4	32.7	28.5	59.1	46.6	31.1
LnGrp LOS	E	D	D	F	D	C	E	C	C	E	D	C
Approach Vol, veh/h		855			1422			879			1076	
Approach Delay, s/veh		42.2			88.1			41.3			48.5	
Approach LOS		D			F			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	42.3	24.2	36.1	16.0	38.7	20.1	40.2				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	17.4	37.4	27.4	34.4	11.4	43.4	23.4	38.4				
Max Q Clear Time (g_c+I1), s	8.1	27.7	19.4	28.0	13.4	27.6	15.4	16.9				
Green Ext Time (p_c), s	0.1	5.3	0.3	3.5	0.0	6.5	0.2	6.8				
Intersection Summary												
HCM 2010 Ctrl Delay			59.1									
HCM 2010 LOS			E									





















HCM 2010 Signalized Intersection Summary
52: Bradshaw Rd & Elk Grove Blvd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	130	200	120	20	200	120	220	1260	40	90	1210	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	137	211	126	21	211	126	232	1326	42	95	1274	158
Adj No. of Lanes	1	2	1	0	1	1	1	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	202	403	179	25	251	235	258	1775	56	118	1514	677
Arrive On Green	0.12	0.12	0.12	0.15	0.15	0.15	0.15	0.51	0.51	0.07	0.43	0.43
Sat Flow, veh/h	1757	3505	1556	166	1670	1568	1757	3468	110	1757	3505	1568
Grp Volume(v), veh/h	137	211	126	232	0	126	232	669	699	95	1274	158
Grp Sat Flow(s),veh/h/ln	1757	1752	1556	1836	0	1568	1757	1752	1825	1757	1752	1568
Q Serve(g_s), s	9.2	7.0	9.6	15.1	0.0	9.1	16.0	37.1	37.2	6.6	39.9	7.8
Cycle Q Clear(g_c), s	9.2	7.0	9.6	15.1	0.0	9.1	16.0	37.1	37.2	6.6	39.9	7.8
Prop In Lane	1.00		1.00	0.09		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	202	403	179	275	0	235	258	897	934	118	1514	677
V/C Ratio(X)	0.68	0.52	0.70	0.84	0.00	0.54	0.90	0.75	0.75	0.81	0.84	0.23
Avail Cap(c_a), veh/h	391	780	346	454	0	387	286	897	934	143	1514	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	51.3	52.4	50.9	0.0	48.3	51.6	23.7	23.7	56.6	31.2	22.1
Incr Delay (d2), s/veh	3.9	1.1	5.0	7.4	0.0	1.9	27.2	5.6	5.4	23.8	5.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	3.4	4.4	8.2	0.0	4.1	9.7	19.3	20.0	4.0	20.5	3.5
LnGrp Delay(d),s/veh	56.2	52.3	57.4	58.3	0.0	50.2	78.8	29.3	29.2	80.4	37.0	22.9
LnGrp LOS	E	D	E	E		D	E	C	C	F	D	C
Approach Vol, veh/h		474			358			1600			1527	
Approach Delay, s/veh		54.8			55.4			36.5			38.3	
Approach LOS		D			E			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.3	68.0		18.8	23.1	58.2		23.1				
Change Period (Y+Rc), s	5.0	5.0		4.6	5.0	5.0		4.6				
Max Green Setting (Gmax), s	10.0	63.0		27.4	20.0	53.0		30.4				
Max Q Clear Time (g_c+I1), s	8.6	39.2		11.6	18.0	41.9		17.1				
Green Ext Time (p_c), s	0.0	18.3		1.9	0.1	9.6		1.3				
Intersection Summary												
HCM 2010 Ctrl Delay			41.1									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
53: Grant Line Rd & Elk Grove Blvd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	230	30	60	40	60	10	20	950	20	10	790	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1896	1357	1900	1863	1900	1520	1745	1900	1863	1759	1845
Adj Flow Rate, veh/h	250	33	0	43	65	11	22	1033	22	11	859	0
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	2	1
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
Percent Heavy Veh, %	2	2	40	2	2	2	25	9	9	2	8	3
Cap, veh/h	291	38	210	55	84	14	100	1528	33	105	1506	707
Arrive On Green	0.18	0.18	0.00	0.08	0.08	0.08	0.07	0.46	0.46	0.06	0.45	0.00
Sat Flow, veh/h	1604	212	1154	651	984	166	1448	3320	71	1774	3343	1568
Grp Volume(v), veh/h	283	0	0	119	0	0	22	516	539	11	859	0
Grp Sat Flow(s),veh/h/ln	1815	0	1154	1801	0	0	1448	1658	1733	1774	1671	1568
Q Serve(g_s), s	15.8	0.0	0.0	6.8	0.0	0.0	1.5	25.5	25.5	0.6	19.9	0.0
Cycle Q Clear(g_c), s	15.8	0.0	0.0	6.8	0.0	0.0	1.5	25.5	25.5	0.6	19.9	0.0
Prop In Lane	0.88		1.00	0.36		0.09	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	330	0	210	153	0	0	100	763	798	105	1506	707
V/C Ratio(X)	0.86	0.00	0.00	0.78	0.00	0.00	0.22	0.68	0.68	0.10	0.57	0.00
Avail Cap(c_a), veh/h	530	0	337	389	0	0	100	763	798	105	1506	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.5	0.0	0.0	46.9	0.0	0.0	46.1	22.1	22.1	46.6	21.3	0.0
Incr Delay (d2), s/veh	7.9	0.0	0.0	8.2	0.0	0.0	5.1	4.8	4.6	2.0	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	0.0	0.0	3.7	0.0	0.0	0.7	12.6	13.1	0.4	9.5	0.0
LnGrp Delay(d),s/veh	49.4	0.0	0.0	55.2	0.0	0.0	51.2	26.9	26.7	48.6	22.8	0.0
LnGrp LOS	D			E			D	C	C	D	C	
Approach Vol, veh/h		283			119			1077			870	
Approach Delay, s/veh		49.4			55.2			27.3			23.2	
Approach LOS		D			E			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	54.0		24.4	13.0	53.0		14.3				
Change Period (Y+Rc), s	* 5.8	* 5.8		5.4	* 5.8	* 5.8		5.4				
Max Green Setting (Gmax), s	* 6.2	* 48		30.6	* 7.2	* 47		22.6				
Max Q Clear Time (g_c+I1), s	2.6	27.5		17.8	3.5	21.9		8.8				
Green Ext Time (p_c), s	0.0	11.6		1.2	0.0	13.0		0.4				
Intersection Summary												
HCM 2010 Ctrl Delay			29.8									
HCM 2010 LOS			C									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
 54: Bruceville Rd & Backer Ranch Rd/Civic Center Dr

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	90	90	110	60	50	130	1450	120	70	1220	90
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	87	98	14	120	65	19	141	1576	96	76	1326	94
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	113	242	197	190	227	184	173	2091	906	99	1837	130
Arrive On Green	0.06	0.13	0.13	0.06	0.12	0.12	0.10	0.60	0.60	0.06	0.55	0.55
Sat Flow, veh/h	1757	1845	1501	3408	1845	1498	1757	3505	1519	1757	3313	234
Grp Volume(v), veh/h	87	98	14	120	65	19	141	1576	96	76	700	720
Grp Sat Flow(s),veh/h/ln	1757	1845	1501	1704	1845	1498	1757	1752	1519	1757	1752	1794
Q Serve(g_s), s	5.9	5.9	1.0	4.2	3.9	1.4	9.5	39.8	3.3	5.2	35.8	36.1
Cycle Q Clear(g_c), s	5.9	5.9	1.0	4.2	3.9	1.4	9.5	39.8	3.3	5.2	35.8	36.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	113	242	197	190	227	184	173	2091	906	99	972	995
V/C Ratio(X)	0.77	0.40	0.07	0.63	0.29	0.10	0.81	0.75	0.11	0.77	0.72	0.72
Avail Cap(c_a), veh/h	364	611	497	705	611	496	364	2091	906	364	1015	1040
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	48.1	46.0	55.8	48.2	47.1	53.4	17.9	10.5	56.2	20.0	20.0
Incr Delay (d2), s/veh	4.2	0.4	0.1	1.3	0.3	0.1	3.5	1.4	0.0	4.6	2.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.0	0.4	2.0	2.0	0.6	4.8	19.5	1.4	2.6	17.8	18.4
LnGrp Delay(d),s/veh	59.8	48.5	46.1	57.1	48.4	47.1	56.9	19.3	10.5	60.8	22.0	22.1
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	C	C
Approach Vol, veh/h		199			204			1813			1496	
Approach Delay, s/veh		53.3			53.4			21.7			24.0	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.5	72.5	12.4	19.5	11.4	77.6	11.3	20.5				
Change Period (Y+Rc), s	4.6	5.5	4.6	4.6	4.6	5.5	4.6	4.6				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	11.5	38.1	7.9	5.9	7.2	41.8	6.2	7.9				
Green Ext Time (p_c), s	0.5	28.9	0.3	1.0	0.2	27.6	0.7	1.0				
Intersection Summary												
HCM 2010 Ctrl Delay			26.1									
HCM 2010 LOS			C									

Intersection												
Intersection Delay, s/veh	31.7											
Intersection LOS	D											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	20	300	40	0	70	110	20	0	50	30	110
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	30	455	61	0	106	167	30	0	76	45	167
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	53.9	14.1	17.9
HCM LOS	F	B	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	100%	0%	100%	0%	55%
Vol Thru, %	16%	0%	88%	0%	85%	27%
Vol Right, %	58%	0%	12%	0%	15%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	20	340	70	130	110
LT Vol	50	20	0	70	0	60
Through Vol	30	0	300	0	110	30
RT Vol	110	0	40	0	20	20
Lane Flow Rate	288	30	515	106	197	167
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.546	0.062	0.964	0.231	0.394	0.348
Departure Headway (Hd)	6.822	7.333	6.737	7.834	7.208	7.507
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	527	487	536	456	496	477
Service Time	4.902	5.105	4.508	5.626	5	5.604
HCM Lane V/C Ratio	0.546	0.062	0.961	0.232	0.397	0.35
HCM Control Delay	17.9	10.6	56.4	13	14.7	14.6
HCM Lane LOS	C	B	F	B	B	B
HCM 95th-tile Q	3.3	0.2	12.7	0.9	1.9	1.5

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	60	30	20
Peak Hour Factor	0.66	0.66	0.66	0.66
Heavy Vehicles, %	3	3	3	3
Mvmt Flow	0	91	45	30
Number of Lanes	0	0	1	0

























Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	14.6
HCM LOS	B

Lane













HCM 2010 Signalized Intersection Summary
56: Big Horn Blvd & Civic Center Dr

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	190	110	110	20	70	30	60	1350	20	20	1140	160
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.95	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	207	120	99	22	76	18	65	1467	21	22	1239	162
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	2	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	234	786	341	37	392	167	85	1966	28	37	1642	214
Arrive On Green	0.13	0.22	0.22	0.02	0.11	0.11	0.05	0.56	0.56	0.02	0.53	0.53
Sat Flow, veh/h	1757	3505	1521	1757	3505	1493	1757	3536	51	1757	3106	404
Grp Volume(v), veh/h	207	120	99	22	76	18	65	726	762	22	696	705
Grp Sat Flow(s),veh/h/ln	1757	1752	1521	1757	1752	1493	1757	1752	1835	1757	1752	1757
Q Serve(g_s), s	14.9	3.5	6.9	1.6	2.5	1.4	4.7	40.4	40.5	1.6	39.9	40.5
Cycle Q Clear(g_c), s	14.9	3.5	6.9	1.6	2.5	1.4	4.7	40.4	40.5	1.6	39.9	40.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		0.23
Lane Grp Cap(c), veh/h	234	786	341	37	392	167	85	974	1020	37	926	929
V/C Ratio(X)	0.88	0.15	0.29	0.59	0.19	0.11	0.76	0.75	0.75	0.59	0.75	0.76
Avail Cap(c_a), veh/h	342	1092	474	342	1092	465	342	974	1020	342	955	958
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	40.0	41.3	62.3	51.7	51.2	60.4	21.6	21.6	62.3	23.7	23.8
Incr Delay (d2), s/veh	12.8	0.0	0.2	5.5	0.1	0.1	5.2	2.8	2.7	5.5	2.9	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	1.7	2.9	0.8	1.2	0.6	2.4	20.1	21.1	0.8	19.9	20.4
LnGrp Delay(d),s/veh	67.5	40.0	41.5	67.7	51.8	51.3	65.5	24.4	24.4	67.7	26.5	26.9
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	C	C
Approach Vol, veh/h		426			116			1553			1423	
Approach Delay, s/veh		53.7			54.8			26.1			27.3	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.5	73.2	22.7	20.0	9.0	76.7	8.3	34.4				
Change Period (Y+Rc), s	6.3	5.3	5.6	5.6	6.3	5.3	5.6	* 5.6				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	* 40				
Max Q Clear Time (g_c+I1), s	6.7	42.5	16.9	4.5	3.6	42.5	3.6	8.9				
Green Ext Time (p_c), s	0.2	25.3	0.3	1.2	0.0	26.9	0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			30.9									
HCM 2010 LOS			C									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												






























HCM 2010 Signalized Intersection Summary
57: Big Horn Blvd & Denali Circle

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↕		↕	↑↑			↕↕	
Volume (veh/h)	130	10	80	10	10	10	100	1420	10	10	1260	50
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1863	1900	1845	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	141	11	76	11	11	11	109	1543	11	11	1370	49
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	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
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	3	3	3
Cap, veh/h	151	12	81	17	17	17	137	2487	18	39	1900	68
Arrive On Green	0.15	0.15	0.15	0.03	0.03	0.03	0.08	0.70	0.70	0.57	0.57	0.57
Sat Flow, veh/h	1032	81	556	577	577	577	1757	3567	25	9	3328	119
Grp Volume(v), veh/h	228	0	0	33	0	0	109	758	796	747	0	683
Grp Sat Flow(s),veh/h/ln	1669	0	0	1732	0	0	1757	1753	1840	1802	0	1653
Q Serve(g_s), s	14.8	0.0	0.0	2.1	0.0	0.0	6.7	25.2	25.2	0.0	0.0	33.0
Cycle Q Clear(g_c), s	14.8	0.0	0.0	2.1	0.0	0.0	6.7	25.2	25.2	31.9	0.0	33.0
Prop In Lane	0.62		0.33	0.33		0.33	1.00		0.01	0.01		0.07
Lane Grp Cap(c), veh/h	244	0	0	50	0	0	137	1222	1283	1062	0	944
V/C Ratio(X)	0.93	0.00	0.00	0.66	0.00	0.00	0.80	0.62	0.62	0.70	0.00	0.72
Avail Cap(c_a), veh/h	244	0	0	396	0	0	402	1222	1283	1183	0	1060
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.1	0.0	0.0	52.5	0.0	0.0	49.5	8.8	8.8	16.9	0.0	17.1
Incr Delay (d2), s/veh	39.5	0.0	0.0	5.4	0.0	0.0	4.0	0.7	0.7	1.3	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	0.0	0.0	1.1	0.0	0.0	3.4	12.2	12.9	16.6	0.0	15.4
LnGrp Delay(d),s/veh	85.6	0.0	0.0	57.8	0.0	0.0	53.5	9.5	9.5	18.2	0.0	18.9
LnGrp LOS	F			E			D	A	A	B		B
Approach Vol, veh/h		228			33			1663				1430
Approach Delay, s/veh		85.6			57.8			12.4				18.5
Approach LOS		F			E			B				B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.8	67.7		20.0		81.5		7.8				
Change Period (Y+Rc), s	5.3	5.3		4.0		5.3		4.6				
Max Green Setting (Gmax), s	25.0	70.0		16.0		70.0		25.0				
Max Q Clear Time (g_c+I1), s	8.7	35.0		16.8		27.2		4.1				
Green Ext Time (p_c), s	0.2	27.3		0.0		41.6		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			20.4									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
58: Big Horn Blvd & Denali Circle/Lotz Pkwy

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				 		 		 		 	 	 
Volume (veh/h)	220	380	20	350	100	180	40	1120	290	250	1000	90
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.95	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	239	413	20	380	109	156	43	1217	276	272	1087	85
Adj No. of Lanes	1	1	0	2	1	2	1	2	1	2	2	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	258	419	20	425	403	849	56	1361	595	341	1499	117
Arrive On Green	0.15	0.24	0.24	0.12	0.22	0.22	0.03	0.39	0.39	0.10	0.46	0.46
Sat Flow, veh/h	1757	1742	84	3408	1845	2620	1757	3505	1533	3408	3284	257
Grp Volume(v), veh/h	239	0	433	380	109	156	43	1217	276	272	580	592
Grp Sat Flow(s),veh/h/ln	1757	0	1827	1704	1845	1310	1757	1752	1533	1704	1752	1788
Q Serve(g_s), s	22.4	0.0	39.3	18.3	8.2	7.2	4.0	54.2	22.4	13.0	44.7	44.8
Cycle Q Clear(g_c), s	22.4	0.0	39.3	18.3	8.2	7.2	4.0	54.2	22.4	13.0	44.7	44.8
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	258	0	439	425	403	849	56	1361	595	341	800	816
V/C Ratio(X)	0.93	0.00	0.99	0.89	0.27	0.18	0.77	0.89	0.46	0.80	0.72	0.73
Avail Cap(c_a), veh/h	264	0	439	512	443	906	264	1474	645	819	800	816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.2	0.0	63.0	71.8	54.0	41.1	80.0	47.7	38.0	73.3	36.8	36.8
Incr Delay (d2), s/veh	35.5	0.0	39.2	14.4	0.1	0.0	7.8	6.7	0.2	1.6	2.9	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.4	0.0	24.6	9.5	4.2	2.6	2.1	27.5	9.5	6.2	22.2	22.7
LnGrp Delay(d),s/veh	105.6	0.0	102.2	86.1	54.2	41.1	87.8	54.4	38.2	74.9	39.6	39.6
LnGrp LOS	F		F	F	D	D	F	D	D	E	D	D
Approach Vol, veh/h		672			645			1536			1444	
Approach Delay, s/veh		103.4			69.8			52.4			46.3	
Approach LOS		F			E			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	81.3	30.0	43.6	23.0	69.9	26.4	47.2				
Change Period (Y+Rc), s	6.3	5.3	5.6	* 7.2	6.3	5.3	5.6	7.2				
Max Green Setting (Gmax), s	25.0	70.0	25.0	* 40	40.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	6.0	46.8	24.4	10.2	15.0	56.2	20.3	41.3				
Green Ext Time (p_c), s	0.1	22.0	0.0	2.2	1.7	8.5	0.5	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			60.9									
HCM 2010 LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

























HCM 2010 Signalized Intersection Summary
59: Big Horn Blvd & Whitelock Pkwy

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	210	710	120	40	330	270	30	1170	100	220	1070	90
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	228	772	125	43	359	165	33	1272	102	239	1163	34
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	327	1121	489	112	900	391	97	1243	543	338	1491	653
Arrive On Green	0.10	0.32	0.32	0.03	0.26	0.26	0.03	0.35	0.35	0.10	0.43	0.43
Sat Flow, veh/h	3408	3505	1529	3408	3505	1525	3408	3505	1531	3408	3505	1534
Grp Volume(v), veh/h	228	772	125	43	359	165	33	1272	102	239	1163	34
Grp Sat Flow(s),veh/h/ln	1704	1752	1529	1704	1752	1525	1704	1752	1531	1704	1752	1534
Q Serve(g_s), s	7.3	21.7	6.8	1.4	9.6	10.2	1.1	40.0	5.2	7.7	32.2	1.5
Cycle Q Clear(g_c), s	7.3	21.7	6.8	1.4	9.6	10.2	1.1	40.0	5.2	7.7	32.2	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	327	1121	489	112	900	391	97	1243	543	338	1491	653
V/C Ratio(X)	0.70	0.69	0.26	0.38	0.40	0.42	0.34	1.02	0.19	0.71	0.78	0.05
Avail Cap(c_a), veh/h	1058	1865	814	756	1865	811	756	1243	543	1058	1491	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.4	33.5	28.4	53.4	34.7	34.9	53.7	36.4	25.2	49.2	27.9	19.0
Incr Delay (d2), s/veh	1.0	0.3	0.1	0.8	0.1	0.3	0.8	31.6	0.1	1.0	2.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	10.6	2.9	0.7	4.7	4.3	0.5	24.6	2.2	3.7	16.0	0.6
LnGrp Delay(d),s/veh	50.4	33.7	28.5	54.2	34.8	35.2	54.5	67.9	25.2	50.2	30.3	19.0
LnGrp LOS	D	C	C	D	C	D	D	F	C	D	C	B
Approach Vol, veh/h		1125			567			1407			1436	
Approach Delay, s/veh		36.5			36.4			64.5			33.4	
Approach LOS		D			D			E			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	53.3	16.4	33.6	17.5	45.3	9.3	40.7				
Change Period (Y+Rc), s	6.3	5.3	5.6	4.6	6.3	5.3	5.6	4.6				
Max Green Setting (Gmax), s	25.0	40.0	35.0	60.0	35.0	40.0	25.0	60.0				
Max Q Clear Time (g_c+I1), s	3.1	34.2	9.3	12.2	9.7	42.0	3.4	23.7				
Green Ext Time (p_c), s	0.1	5.7	1.5	13.3	1.5	0.0	0.2	12.4				
Intersection Summary												
HCM 2010 Ctrl Delay			44.2									
HCM 2010 LOS			D									













HCM 2010 Signalized Intersection Summary
60: Wolf Pack Lane/Laguna Springs Dr & Lotz Parkway

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	500	290	20	20	220	550	50	120	20	230	150	450
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	543	315	22	22	239	598	54	130	22	250	163	489
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	609	1626	712	72	1073	468	112	996	434	307	1196	522
Arrive On Green	0.18	0.46	0.46	0.02	0.31	0.31	0.03	0.28	0.28	0.09	0.34	0.34
Sat Flow, veh/h	3408	3505	1535	3408	3505	1528	3408	3505	1527	3408	3505	1531
Grp Volume(v), veh/h	543	315	22	22	239	598	54	130	22	250	163	489
Grp Sat Flow(s),veh/h/ln	1704	1752	1535	1704	1752	1528	1704	1752	1527	1704	1752	1531
Q Serve(g_s), s	20.3	6.9	1.0	0.8	6.6	40.0	2.0	3.6	1.4	9.4	4.2	40.4
Cycle Q Clear(g_c), s	20.3	6.9	1.0	0.8	6.6	40.0	2.0	3.6	1.4	9.4	4.2	40.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	609	1626	712	72	1073	468	112	996	434	307	1196	522
V/C Ratio(X)	0.89	0.19	0.03	0.31	0.22	1.28	0.48	0.13	0.05	0.81	0.14	0.94
Avail Cap(c_a), veh/h	1044	1626	712	1044	1073	468	1827	1879	818	652	1879	820
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	20.6	19.0	63.0	33.7	45.3	62.1	34.8	34.0	58.3	29.7	41.6
Incr Delay (d2), s/veh	2.7	0.0	0.0	0.9	0.0	140.5	1.2	0.0	0.0	2.0	0.0	9.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	3.3	0.4	0.4	3.2	35.1	1.0	1.8	0.6	4.5	2.0	18.4
LnGrp Delay(d),s/veh	55.1	20.6	19.1	63.9	33.8	185.8	63.3	34.8	34.0	60.3	29.7	51.3
LnGrp LOS	E	C	B	E	C	F	E	C	C	E	C	D
Approach Vol, veh/h		880			859			206			902	
Approach Delay, s/veh		41.9			140.4			42.2			49.9	
Approach LOS		D			F			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	49.2	27.9	44.6	16.4	41.7	7.3	65.2				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	70.0	70.0	40.0	40.0	25.0	70.0	40.0	40.0				
Max Q Clear Time (g_c+I1), s	4.0	42.4	22.3	42.0	11.4	5.6	2.8	8.9				
Green Ext Time (p_c), s	0.1	2.2	1.0	0.0	0.4	2.2	0.0	3.8				
Intersection Summary												
HCM 2010 Ctrl Delay			74.2									
HCM 2010 LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
 61: Willard Pkwy/Franklin Blvd & Whitelock Pkwy

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑		↵	↵	↵↵	↵	↵↵	↵	↵↵	↵	↵
Volume (veh/h)	0	0	0	200	0	760	70	1430	80	500	830	0
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	0	1845	1845	1845	1845	1845	1845	1845	1845	0
Adj Flow Rate, veh/h	0	0	0	244	0	503	85	1744	27	610	1012	0
Adj No. of Lanes	0	1	0	1	0	3	1	2	1	2	1	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	3	0	3	3	3	3	3	3	3	3	0
Cap, veh/h	0	2	0	255	0	1527	106	1871	836	623	1210	0
Arrive On Green	0.00	0.00	0.00	0.15	0.00	0.15	0.06	0.53	0.53	0.18	0.66	0.00
Sat Flow, veh/h	0	-84854	0	1757	0	4598	1757	3505	1567	3408	1845	0
Grp Volume(v), veh/h	0	0	0	244	0	503	85	1744	27	610	1012	0
Grp Sat Flow(s),veh/h/ln	0	1845	0	1757	0	1533	1757	1752	1567	1704	1845	0
Q Serve(g_s), s	0.0	0.0	0.0	14.6	0.0	8.8	5.1	49.0	0.9	18.9	44.4	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	14.6	0.0	8.8	5.1	49.0	0.9	18.9	44.4	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	2	0	255	0	1527	106	1871	836	623	1210	0
V/C Ratio(X)	0.00	0.00	0.00	0.96	0.00	0.33	0.80	0.93	0.03	0.98	0.84	0.00
Avail Cap(c_a), veh/h	0	615	0	255	0	3216	106	1871	836	623	1216	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	45.1	0.0	26.9	49.3	23.0	11.7	43.2	13.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	44.2	0.0	0.0	32.3	9.0	0.0	30.7	4.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	10.2	0.0	3.7	3.4	25.8	0.4	11.5	23.9	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	89.3	0.0	27.0	81.5	31.9	11.7	73.8	18.8	0.0
LnGrp LOS				F		C	F	C	B	E	B	
Approach Vol, veh/h		0			747			1856			1622	
Approach Delay, s/veh		0.0			47.3			33.9			39.5	
Approach LOS					D			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s		20.0	24.0	62.2	20.0	0.0	11.0	75.2				
Change Period (Y+Rc), s		4.6	4.6	5.5	4.6	* 4.6	4.6	* 5.5				
Max Green Setting (Gmax), s		54.4	19.4	56.5	15.4	* 35	6.4	* 70				
Max Q Clear Time (g_c+I1), s		10.8	20.9	51.0	16.6	0.0	7.1	46.4				
Green Ext Time (p_c), s		4.5	0.0	5.5	0.0	0.0	0.0	23.3				
Intersection Summary												
HCM 2010 Ctrl Delay			38.4									
HCM 2010 LOS			D									
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												


















HCM 2010 Signalized Intersection Summary
62: Bruceville Rd & Whitelock Pkwy

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	550	680	90	80	270	110	130	790	380	180	790	370
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	598	739	72	87	293	68	141	859	248	196	859	214
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	606	1050	458	141	572	247	202	1489	652	263	1552	958
Arrive On Green	0.18	0.30	0.30	0.04	0.16	0.16	0.06	0.42	0.42	0.08	0.44	0.44
Sat Flow, veh/h	3408	3505	1528	3408	3505	1511	3408	3505	1534	3408	3505	1535
Grp Volume(v), veh/h	598	739	72	87	293	68	141	859	248	196	859	214
Grp Sat Flow(s),veh/h/ln	1704	1752	1528	1704	1752	1511	1704	1752	1534	1704	1752	1535
Q Serve(g_s), s	24.6	26.3	4.9	3.5	10.7	5.5	5.7	26.3	15.6	7.9	25.4	8.6
Cycle Q Clear(g_c), s	24.6	26.3	4.9	3.5	10.7	5.5	5.7	26.3	15.6	7.9	25.4	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	606	1050	458	141	572	247	202	1489	652	263	1552	958
V/C Ratio(X)	0.99	0.70	0.16	0.62	0.51	0.28	0.70	0.58	0.38	0.75	0.55	0.22
Avail Cap(c_a), veh/h	606	1050	458	606	997	430	606	1744	764	606	1744	1043
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.7	43.7	36.2	66.3	53.7	51.6	64.9	30.8	27.7	63.6	28.9	11.8
Incr Delay (d2), s/veh	33.1	1.8	0.1	1.6	0.3	0.2	1.6	0.1	0.1	1.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.3	13.0	2.1	1.7	5.2	2.3	2.7	12.7	6.6	3.8	12.3	3.7
LnGrp Delay(d),s/veh	90.8	45.5	36.3	68.0	54.0	51.8	66.6	30.9	27.9	65.1	29.1	11.8
LnGrp LOS	F	D	D	E	D	D	E	C	C	E	C	B
Approach Vol, veh/h		1409			448			1248			1269	
Approach Delay, s/veh		64.3			56.4			34.4			31.7	
Approach LOS		E			E			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.6	67.6	30.6	27.9	17.1	65.1	11.4	47.0				
Change Period (Y+Rc), s	6.3	5.3	5.6	4.9	6.3	5.3	5.6	4.9				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	7.7	27.4	26.6	12.7	9.9	28.3	5.5	28.3				
Green Ext Time (p_c), s	0.7	32.0	0.0	4.8	0.9	31.5	0.5	6.2				
Intersection Summary												
HCM 2010 Ctrl Delay			45.5									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
63: Hood Franklin Rd & I-5 SB Ramps

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	60	20	0	220	170	0	0	0	1030	0	100
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1832	1900	0	1792	1900				1881	0	1827
Adj Flow Rate, veh/h	0	62	0	0	227	0				1062	0	103
Adj No. of Lanes	0	1	0	0	1	1				1	0	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	5	5	0	6	0				1	0	4
Cap, veh/h	0	375	0	0	367	330				1140	0	988
Arrive On Green	0.00	0.20	0.00	0.00	0.20	0.00				0.64	0.00	0.64
Sat Flow, veh/h	0	1832	0	0	1792	1615				1792	0	1553
Grp Volume(v), veh/h	0	62	0	0	227	0				1062	0	103
Grp Sat Flow(s),veh/h/ln	0	1832	0	0	1792	1615				1792	0	1553
Q Serve(g_s), s	0.0	2.0	0.0	0.0	8.1	0.0				37.3	0.0	1.8
Cycle Q Clear(g_c), s	0.0	2.0	0.0	0.0	8.1	0.0				37.3	0.0	1.8
Prop In Lane	0.00		0.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	375	0	0	367	330				1140	0	988
V/C Ratio(X)	0.00	0.17	0.00	0.00	0.62	0.00				0.93	0.00	0.10
Avail Cap(c_a), veh/h	0	375	0	0	367	330				3166	0	2744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.1	0.0	0.0	25.5	0.0				11.4	0.0	5.0
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.0	7.6	0.0				4.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.1	0.0	0.0	4.8	0.0				19.3	0.0	0.8
LnGrp Delay(d),s/veh	0.0	24.0	0.0	0.0	33.1	0.0				15.5	0.0	5.0
LnGrp LOS		C			C					B		A
Approach Vol, veh/h		62			227						1165	
Approach Delay, s/veh		24.0			33.1						14.6	
Approach LOS		C			C						B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		20.0		50.4		20.0						
Change Period (Y+Rc), s		* 5.6		* 5.6		* 5.6						
Max Green Setting (Gmax), s		* 14		* 1.2E2		* 14						
Max Q Clear Time (g_c+I1), s		4.0		39.3		10.1						
Green Ext Time (p_c), s		0.9		5.5		0.5						
Intersection Summary												
HCM 2010 Ctrl Delay				17.9								
HCM 2010 LOS				B								
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												














HCM 2010 Signalized Intersection Summary
 64: I-5 NB Ramps & Hood Franklin Rd

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗		↑↑	↗	↖		↗			
Volume (veh/h)	0	1060	30	0	340	410	50	0	450	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1696	0	1863	1863	1681	0	1743			
Adj Flow Rate, veh/h	0	1359	0	0	436	0	64	0	577			
Adj No. of Lanes	0	2	1	0	2	1	1	0	1			
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78			
Percent Heavy Veh, %	0	2	12	0	2	2	13	0	9			
Cap, veh/h	0	1537	626	0	1537	688	650	0	601			
Arrive On Green	0.00	0.43	0.00	0.00	0.43	0.00	0.41	0.00	0.41			
Sat Flow, veh/h	0	3632	1442	0	3632	1583	1601	0	1482			
Grp Volume(v), veh/h	0	1359	0	0	436	0	64	0	577			
Grp Sat Flow(s),veh/h/ln	0	1770	1442	0	1770	1583	1601	0	1482			
Q Serve(g_s), s	0.0	24.7	0.0	0.0	5.6	0.0	1.7	0.0	26.5			
Cycle Q Clear(g_c), s	0.0	24.7	0.0	0.0	5.6	0.0	1.7	0.0	26.5			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1537	626	0	1537	688	650	0	601			
V/C Ratio(X)	0.00	0.88	0.00	0.00	0.28	0.00	0.10	0.00	0.96			
Avail Cap(c_a), veh/h	0	1537	626	0	1537	688	650	0	601			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	18.2	0.0	0.0	12.8	0.0	12.9	0.0	20.2			
Incr Delay (d2), s/veh	0.0	7.8	0.0	0.0	0.5	0.0	0.1	0.0	26.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	13.6	0.0	0.0	2.8	0.0	0.8	0.0	15.2			
LnGrp Delay(d),s/veh	0.0	26.0	0.0	0.0	13.2	0.0	12.9	0.0	47.2			
LnGrp LOS		C			B		B		D			
Approach Vol, veh/h		1359			436			641				
Approach Delay, s/veh		26.0			13.2			43.8				
Approach LOS		C			B			D				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		36.0				36.0		34.0				
Change Period (Y+Rc), s		* 5.6				* 5.6		5.6				
Max Green Setting (Gmax), s		* 30				* 30		28.4				
Max Q Clear Time (g_c+I1), s		26.7				7.6		28.5				
Green Ext Time (p_c), s		3.0				12.4		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			28.4									
HCM 2010 LOS			C									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM Signalized Intersection Capacity Analysis
 65: Willard Pkwy & Bilby Rd North















Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 		
Volume (vph)	360	190	270	1090	980	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6	5.6	4.6	5.7	5.7
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	0.98	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1752	1544	1752	3505	1845	1568
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1752	1544	1752	3505	1845	1568
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	424	224	318	1282	1153	212
RTOR Reduction (vph)	0	105	0	0	0	48
Lane Group Flow (vph)	424	119	318	1282	1153	164
Confl. Peds. (#/hr)		2				
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	6		7 5	5 7 8	8	
Permitted Phases		6				8
Actuated Green, G (s)	37.7	37.7	18.4	99.4	75.4	75.4
Effective Green, g (s)	37.7	37.7	13.8	93.8	75.4	75.4
Actuated g/C Ratio	0.25	0.25	0.09	0.63	0.51	0.51
Clearance Time (s)	5.6	5.6			5.7	5.7
Vehicle Extension (s)	2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	445	392	162	2215	937	796
v/s Ratio Prot	c0.24		c0.18	0.37	c0.63	
v/s Ratio Perm		0.08				0.10
v/c Ratio	0.95	0.30	1.96	0.58	1.23	0.21
Uniform Delay, d1	54.5	44.7	67.3	15.8	36.5	20.1
Progression Factor	1.00	1.00	1.12	0.67	1.00	1.00
Incremental Delay, d2	30.5	0.2	444.4	0.1	113.1	0.0
Delay (s)	85.0	44.9	519.8	10.8	149.6	20.1
Level of Service	F	D	F	B	F	C
Approach Delay (s)	71.1			112.0	129.5	
Approach LOS	E			F	F	
Intersection Summary						
HCM 2000 Control Delay			111.3		HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio			1.23			
Actuated Cycle Length (s)			148.4		Sum of lost time (s)	22.9
Intersection Capacity Utilization			101.3%		ICU Level of Service	G
Analysis Period (min)			15			

c Critical Lane Group

























HCM Signalized Intersection Capacity Analysis
66: Willard Pkwy & Bilby Rd South

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations			 				 
Volume (vph)	50	530	820	60	10	350	810
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	5.7			5.6	4.6
Lane Util. Factor	1.00	1.00	0.95			1.00	0.95
Frbp, ped/bikes	1.00	0.99	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.85	0.99			1.00	1.00
Flt Protected	0.95	1.00	1.00			0.95	1.00
Satd. Flow (prot)	1752	1546	3469			1752	3505
Flt Permitted	0.95	1.00	1.00			0.95	1.00
Satd. Flow (perm)	1752	1546	3469			1752	3505
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	61	646	1000	73	12	427	988
RTOR Reduction (vph)	0	331	3	0	0	0	0
Lane Group Flow (vph)	61	315	1070	0	0	439	988
Confl. Peds. (#/hr)		2					
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	NA		Prot	Prot	NA
Protected Phases	2		4		3 1	3 1	1 3 4
Permitted Phases		2					
Actuated Green, G (s)	32.2	32.2	56.0			41.9	103.5
Effective Green, g (s)	32.2	32.2	56.0			37.3	97.9
Actuated g/C Ratio	0.22	0.22	0.38			0.25	0.66
Clearance Time (s)	7.0	7.0	5.7				
Vehicle Extension (s)	2.0	2.0	2.0				
Lane Grp Cap (vph)	380	335	1309			440	2312
v/s Ratio Prot	0.03		c0.31			c0.25	0.28
v/s Ratio Perm		c0.20					
v/c Ratio	0.16	0.94	0.82			1.00	0.43
Uniform Delay, d1	47.1	57.1	41.6			55.5	12.0
Progression Factor	1.00	1.00	1.00			1.40	0.49
Incremental Delay, d2	0.1	33.0	3.9			12.2	0.0
Delay (s)	47.2	90.2	45.5			89.8	5.9
Level of Service	D	F	D			F	A
Approach Delay (s)	86.4		45.5				31.7
Approach LOS	F		D				C
Intersection Summary							
HCM 2000 Control Delay			48.4			HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.90				
Actuated Cycle Length (s)			148.4			Sum of lost time (s)	22.9
Intersection Capacity Utilization			92.8%			ICU Level of Service	F
Analysis Period (min)			15				
c Critical Lane Group							

























HCM 2010 Signalized Intersection Summary
67: Bruceville Rd & Bilby Rd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	460	200	250	50	90	40	140	820	70	80	820	310
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	548	238	247	60	107	47	167	976	83	95	976	258
Adj No. of Lanes	1	1	1	2	2	1	1	2	1	2	2	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	575	683	573	124	279	124	186	1274	570	146	1052	471
Arrive On Green	0.33	0.37	0.37	0.04	0.08	0.08	0.11	0.36	0.36	0.04	0.30	0.30
Sat Flow, veh/h	1757	1845	1547	3408	3505	1562	1757	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	548	238	247	60	107	47	167	976	83	95	976	258
Grp Sat Flow(s),veh/h/ln	1757	1845	1547	1704	1752	1562	1757	1752	1568	1704	1752	1568
Q Serve(g_s), s	35.9	11.0	14.1	2.0	3.4	3.4	11.1	28.9	4.2	3.2	31.8	16.2
Cycle Q Clear(g_c), s	35.9	11.0	14.1	2.0	3.4	3.4	11.1	28.9	4.2	3.2	31.8	16.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	575	683	573	124	279	124	186	1274	570	146	1052	471
V/C Ratio(X)	0.95	0.35	0.43	0.48	0.38	0.38	0.90	0.77	0.15	0.65	0.93	0.55
Avail Cap(c_a), veh/h	604	760	637	304	550	245	186	1274	570	217	1086	486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	26.8	27.8	55.7	51.5	51.4	52.0	33.1	25.2	55.5	40.0	34.5
Incr Delay (d2), s/veh	24.9	0.1	0.2	2.9	0.3	0.7	38.2	3.2	0.2	4.8	13.5	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.3	5.6	6.0	1.0	1.7	1.5	7.4	14.5	1.9	1.6	17.3	7.3
LnGrp Delay(d),s/veh	63.6	26.9	28.0	58.5	51.8	52.2	90.2	36.2	25.4	60.3	53.5	36.4
LnGrp LOS	E	C	C	E	D	D	F	D	C	E	D	D
Approach Vol, veh/h		1033			214			1226			1329	
Approach Delay, s/veh		46.7			53.8			42.9			50.6	
Approach LOS		D			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	40.9	44.1	14.9	10.6	48.3	9.8	49.1				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	12.5	36.5	40.5	18.5	7.5	41.5	10.5	48.5				
Max Q Clear Time (g_c+I1), s	13.1	33.8	37.9	5.4	5.2	30.9	4.0	16.1				
Green Ext Time (p_c), s	0.0	1.6	0.6	3.8	0.1	10.5	0.1	5.3				
Intersection Summary												
HCM 2010 Ctrl Delay			47.2									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
68: Kammerer Rd & Bruceville Rd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	1860	250	320	1470	270	260	780	520	430	660	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1863	1900	1863	1881	1863	1827	1727	1881	1863	1863
Adj Flow Rate, veh/h	130	2022	272	356	1598	300	283	867	578	478	733	98
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.90	0.90	0.90	0.90	0.92
Percent Heavy Veh, %	2	2	2	0	2	1	2	4	10	1	2	2
Cap, veh/h	173	1493	465	407	1815	571	337	974	407	482	1136	508
Arrive On Green	0.05	0.29	0.29	0.12	0.36	0.36	0.10	0.28	0.28	0.14	0.32	0.32
Sat Flow, veh/h	3304	5085	1583	3510	5085	1599	3442	3471	1449	3476	3539	1583
Grp Volume(v), veh/h	130	2022	272	356	1598	300	283	867	578	478	733	98
Grp Sat Flow(s),veh/h/ln	1652	1695	1583	1755	1695	1599	1721	1736	1449	1738	1770	1583
Q Serve(g_s), s	5.7	43.4	21.7	14.8	43.6	22.0	12.0	35.4	41.5	20.3	26.2	6.6
Cycle Q Clear(g_c), s	5.7	43.4	21.7	14.8	43.6	22.0	12.0	35.4	41.5	20.3	26.2	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	173	1493	465	407	1815	571	337	974	407	482	1136	508
V/C Ratio(X)	0.75	1.35	0.59	0.88	0.88	0.53	0.84	0.89	1.42	0.99	0.65	0.19
Avail Cap(c_a), veh/h	219	1493	465	470	1815	571	500	974	407	482	1136	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.1	52.3	44.6	64.4	44.6	37.7	65.6	51.1	53.2	63.7	43.0	36.4
Incr Delay (d2), s/veh	10.3	164.1	5.3	15.2	6.5	3.4	8.0	10.3	203.7	39.0	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	43.0	10.2	8.0	21.5	10.2	6.1	18.4	39.7	12.4	13.0	2.9
LnGrp Delay(d),s/veh	79.5	216.4	49.9	79.6	51.2	41.1	73.6	61.4	257.0	102.7	44.3	36.5
LnGrp LOS	E	F	D	E	D	D	E	E	F	F	D	D
Approach Vol, veh/h		2424			2254			1728			1309	
Approach Delay, s/veh		190.3			54.3			128.8			65.0	
Approach LOS		F			D			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.3	49.6	21.0	54.0	14.0	59.0	27.0	48.0				
Change Period (Y+Rc), s	* 6.2	* 6.2	6.5	6.5	* 6.2	* 6.2	6.5	6.5				
Max Green Setting (Gmax), s	* 20	* 43	21.5	40.5	* 9.8	* 53	20.5	41.5				
Max Q Clear Time (g_c+I1), s	16.8	45.4	14.0	28.2	7.7	45.6	22.3	43.5				
Green Ext Time (p_c), s	0.4	0.0	0.5	9.0	0.1	7.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			115.6									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
AM Peak Hour

Intersection 69 Lent Ranch Pkwy/Kammerer Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	20	18	90.2%	34.5	22.9	C
	Through						
	Right Turn	370	366	99.0%	20.0	1.9	B
	Subtotal	390	384	98.5%	20.7	1.8	C
EB	Left Turn	540	481	89.1%	85.3	19.3	F
	Through	2,430	2,097	86.3%	48.2	23.7	D
	Right Turn						
	Subtotal	2,970	2,578	86.8%	55.1	20.2	E
WB	Left Turn						
	Through	2,370	1,953	82.4%	39.7	6.6	D
	Right Turn	20	18	92.1%	8.3	4.7	A
	Subtotal	2,390	1,971	82.5%	39.4	6.6	D
Total		5,750	4,933	85.8%	45.7	8.5	D

Intersection 70 Promenade Pkwy/Kammerer Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	790	730	92.4%	114.4	31.1	F
	Through	410	350	85.5%	99.9	20.2	F
	Right Turn	390	290	74.2%	131.3	50.8	F
	Subtotal	1,590	1,370	86.1%	113.6	23.0	F
SB	Left Turn	1,110	749	67.4%	169.5	24.8	F
	Through	90	87	96.5%	68.6	10.6	E
	Right Turn	20	21	103.4%	8.8	3.7	A
	Subtotal	1,220	856	70.2%	155.1	20.0	F
EB	Left Turn	20	17	84.6%	113.1	24.7	F
	Through	2,020	1,394	69.0%	173.0	35.0	F
	Right Turn	440	226	51.3%	246.7	81.9	F
	Subtotal	2,480	1,636	66.0%	181.5	38.9	F
NW	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		5,290	3,862	73.0%	150.7	15.9	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
AM Peak Hour

Intersection 71 SR 99 SB Ramps/Kammerer Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	840	655	78.0%	120.0	34.6	F
	Through	20	18	90.2%	103.1	54.8	F
	Right Turn	530	468	88.3%	77.4	25.8	E
	Subtotal	1,390	1,141	82.1%	101.8	30.2	F
EB	Left Turn						
	Through	3,010	1,892	62.9%	107.4	15.8	F
	Right Turn	510	316	61.9%	10.8	2.8	B
	Subtotal	3,520	2,208	62.7%	93.8	15.0	F
WB	Left Turn						
	Through	2,830	2,081	73.5%	69.0	21.2	E
	Right Turn	620	450	72.6%	16.3	6.0	B
	Subtotal	3,450	2,531	73.4%	59.7	18.6	E
Total		8,360	5,880	70.3%	79.8	8.2	E

Intersection 72 SR 99 NB Ramps/Grant Line Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	200	205	102.5%	37.0	4.1	D
	Through	20	19	95.9%	31.3	12.7	C
	Right Turn	800	750	93.8%	85.9	16.8	F
	Subtotal	1,020	974	95.5%	74.5	12.9	E
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	3,290	2,031	61.7%	121.1	8.1	F
	Right Turn	560	309	55.3%	79.9	13.3	E
	Subtotal	3,850	2,341	60.8%	115.6	8.9	F
WB	Left Turn						
	Through	3,250	2,411	74.2%	17.1	7.0	B
	Right Turn	920	656	71.3%	4.9	0.5	A
	Subtotal	4,170	3,067	73.5%	14.5	5.5	B
Total		9,040	6,382	70.6%	60.7	4.1	E

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
AM Peak Hour

Intersection 73

























E Stockton Blvd/Grant Line Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	150	112	74.4%	246.3	31.6	F
	Through	50	41	82.7%	235.2	45.2	F
	Right Turn	30	23	76.5%	195.3	36.4	F
	Subtotal	230	176	76.5%	236.8	30.0	F
SB	Left Turn	180	132	73.5%	110.0	15.4	F
	Through	50	41	81.2%	115.6	16.0	F
	Right Turn	550	439	79.8%	98.5	6.4	F
	Subtotal	780	612	78.5%	101.7	6.7	F
EB	Left Turn	580	232	40.0%	368.9	21.2	F
	Through	3,260	2,382	73.1%	89.5	3.6	F
	Right Turn	250	174	69.5%	19.5	2.3	B
	Subtotal	4,090	2,788	68.2%	108.4	2.4	F
WB	Left Turn	130	78	59.9%	330.0	31.9	F
	Through	3,460	2,529	73.1%	189.0	19.1	F
	Right Turn	390	249	63.8%	263.8	35.0	F
	Subtotal	3,980	2,856	71.8%	199.1	19.0	F
Total		9,080	6,431	70.8%	151.5	7.7	F

HCM 2010 Signalized Intersection Summary
74: Grant Line Rd & Waterman Rd













Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	650	1700	1150	20	2650	20	510	130	110	10	300	820
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1743	1810	950	1900	1810	1624	1900	1900	1900	1473	1900	1712
Adj Flow Rate, veh/h	684	1789	1211	21	2789	17	537	137	116	11	316	629
Adj No. of Lanes	2	4	1	2	4	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	5	100	0	5	17	0	0	0	29	0	11
Cap, veh/h	357	2667	486	103	2160	479	610	1075	481	157	656	426
Arrive On Green	0.11	0.43	0.43	0.03	0.35	0.35	0.17	0.30	0.30	0.06	0.18	0.18
Sat Flow, veh/h	3221	6225	807	3510	6225	1380	3510	3610	1615	2721	3610	1455
Grp Volume(v), veh/h	684	1789	1211	21	2789	17	537	137	116	11	316	629
Grp Sat Flow(s),veh/h/ln	1610	1556	807	1755	1556	1380	1755	1805	1615	1361	1805	1455
Q Serve(g_s), s	13.4	27.9	51.9	0.7	42.0	1.0	18.1	3.4	6.6	0.5	9.5	22.0
Cycle Q Clear(g_c), s	13.4	27.9	51.9	0.7	42.0	1.0	18.1	3.4	6.6	0.5	9.5	22.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	357	2667	486	103	2160	479	610	1075	481	157	656	426
V/C Ratio(X)	1.92	0.67	2.49	0.20	1.29	0.04	0.88	0.13	0.24	0.07	0.48	1.48
Avail Cap(c_a), veh/h	357	2667	486	203	2160	479	1015	1491	667	157	656	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	27.7	24.1	57.4	39.5	26.1	48.8	31.0	32.2	53.9	44.4	42.8
Incr Delay (d2), s/veh	423.5	1.4	676.8	0.4	134.6	0.1	2.8	0.0	0.1	0.1	0.2	227.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.9	12.2	107.5	0.3	38.2	0.4	9.0	1.7	2.9	0.2	4.8	41.0
LnGrp Delay(d),s/veh	477.3	29.1	700.8	57.7	174.1	26.3	51.5	31.0	32.3	54.0	44.6	270.3
LnGrp LOS	F	C	F	E	F	C	D	C	C	D	D	F
Approach Vol, veh/h		3684			2827			790			956	
Approach Delay, s/veh		333.1			172.4			45.1			193.2	
Approach LOS		F			F			D			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	48.0	13.0	42.0	8.1	57.9	27.0	28.0				
Change Period (Y+Rc), s	4.6	6.0	6.0	6.0	4.6	6.0	6.0	6.0				
Max Green Setting (Gmax), s	13.4	42.0	7.0	50.0	7.0	48.4	35.0	22.0				
Max Q Clear Time (g_c+I1), s	15.4	44.0	2.5	8.6	2.7	53.9	20.1	24.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	3.2	0.0	0.0	1.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			234.3									
HCM 2010 LOS			F									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary

























75: Grant Line Rd & Mosher Rd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Volume (veh/h)	60	1760	2740	150	80	120		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1792	1900	1792	1743	1866	1900		
Adj Flow Rate, veh/h	65	1913	2978	163	87	130		
Adj No. of Lanes	1	4	4	1	0	0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	6	0	6	9	0	0		
Cap, veh/h	82	4732	3816	917	102	153		
Arrive On Green	0.05	0.72	0.62	0.62	0.15	0.15		
Sat Flow, veh/h	1707	6802	6417	1482	662	989		
Grp Volume(v), veh/h	65	1913	2978	163	218	0		
Grp Sat Flow(s),veh/h/ln	1707	1634	1542	1482	1659	0		
Q Serve(g_s), s	3.7	11.3	35.1	4.6	12.6	0.0		
Cycle Q Clear(g_c), s	3.7	11.3	35.1	4.6	12.6	0.0		
Prop In Lane	1.00			1.00	0.40	0.60		
Lane Grp Cap(c), veh/h	82	4732	3816	917	256	0		
V/C Ratio(X)	0.79	0.40	0.78	0.18	0.85	0.00		
Avail Cap(c_a), veh/h	111	4732	3816	917	700	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	46.4	5.3	13.9	8.0	40.6	0.0		
Incr Delay (d2), s/veh	23.2	0.3	1.6	0.4	7.8	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.3	5.1	15.1	2.0	6.3	0.0		
LnGrp Delay(d),s/veh	69.6	5.6	15.5	8.5	48.4	0.0		
LnGrp LOS	E	A	B	A	D			
Approach Vol, veh/h		1978	3141		218			
Approach Delay, s/veh		7.7	15.1		48.4			
Approach LOS		A	B		D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		77.0		21.6	10.4	66.6		
Change Period (Y+Rc), s		* 5.6		6.4	* 5.6	* 5.6		
Max Green Setting (Gmax), s		* 71		41.6	* 6.4	* 59		
Max Q Clear Time (g_c+I1), s		13.3		14.6	5.7	37.1		
Green Ext Time (p_c), s		56.7		0.6	0.0	22.1		
Intersection Summary								
HCM 2010 Ctrl Delay			13.7					
HCM 2010 LOS			B					
Notes								
User approved volume balancing among the lanes for turning movement.								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

























HCM 2010 Signalized Intersection Summary
76: Grant Line Rd & Bradshaw Rd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	840	900	180	40	830	20	450	570	90	20	230	1080
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1727	1863	1863	1759	1900	1863	1863	1863	1900	1863	1776
Adj Flow Rate, veh/h	903	968	196	43	892	22	489	620	98	22	250	1161
Adj No. of Lanes	2	3	1	1	4	1	1	1	1	1	2	1
Peak Hour Factor	0.93	0.93	0.92	0.92	0.93	0.93	0.92	0.92	0.92	0.93	0.92	0.93
Percent Heavy Veh, %	3	10	2	2	8	0	2	2	2	0	2	7
Cap, veh/h	518	1852	622	55	1646	439	136	720	612	36	1168	728
Arrive On Green	0.15	0.39	0.39	0.03	0.27	0.27	0.08	0.39	0.39	0.02	0.33	0.33
Sat Flow, veh/h	3408	4715	1583	1774	6052	1615	1774	1863	1583	1810	3539	1509
Grp Volume(v), veh/h	903	968	196	43	892	22	489	620	98	22	250	1161
Grp Sat Flow(s),veh/h/ln	1704	1572	1583	1774	1513	1615	1774	1863	1583	1810	1770	1509
Q Serve(g_s), s	22.8	23.5	12.9	3.6	18.9	1.5	11.5	45.9	6.1	1.8	7.6	49.5
Cycle Q Clear(g_c), s	22.8	23.5	12.9	3.6	18.9	1.5	11.5	45.9	6.1	1.8	7.6	49.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	518	1852	622	55	1646	439	136	720	612	36	1168	728
V/C Ratio(X)	1.74	0.52	0.32	0.78	0.54	0.05	3.60	0.86	0.16	0.61	0.21	1.60
Avail Cap(c_a), veh/h	518	1852	622	104	1646	439	136	720	612	78	1168	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.6	34.8	31.6	72.1	46.6	40.3	69.3	42.3	30.1	72.9	36.2	38.8
Incr Delay (d2), s/veh	342.3	1.1	1.3	20.2	1.3	0.2	1185.9	10.4	0.1	15.3	0.1	274.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	35.4	10.4	5.8	2.1	8.0	0.7	50.4	25.7	2.7	1.1	3.8	85.5
LnGrp Delay(d),s/veh	405.9	35.9	32.9	92.4	47.9	40.5	1255.2	52.7	30.2	88.2	36.3	313.5
LnGrp LOS	F	D	C	F	D	D	F	D	C	F	D	F
Approach Vol, veh/h		2067			957			1207			1433	
Approach Delay, s/veh		197.3			49.7			538.0			261.7	
Approach LOS		F			D			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	65.1	18.0	56.0	29.0	47.0	9.5	64.5				
Change Period (Y+Rc), s	* 6.2	* 6.2	6.5	6.5	* 6.2	* 6.2	6.5	6.5				
Max Green Setting (Gmax), s	* 8.8	* 55	11.5	49.5	* 23	* 41	6.5	54.5				
Max Q Clear Time (g_c+I1), s	5.6	25.5	13.5	51.5	24.8	20.9	3.8	47.9				
Green Ext Time (p_c), s	0.0	15.4	0.0	0.0	0.0	12.3	0.0	5.2				
Intersection Summary												
HCM 2010 Ctrl Delay			261.2									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												























HCM 2010 Signalized Intersection Summary
77: Whitelock Pkwy & Lotz Pkwy

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	550	140	1100	330	460	90	700	960	130	520	10
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1863	1788	1863	1863	1788	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	22	598	41	1196	359	384	98	761	466	141	565	2
Adj No. of Lanes	2	2	1	2	2	1	2	2	2	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	67	1034	463	760	1776	795	140	975	768	157	1034	440
Arrive On Green	0.02	0.29	0.29	0.23	0.50	0.50	0.04	0.28	0.28	0.04	0.28	0.28
Sat Flow, veh/h	3304	3539	1583	3304	3539	1583	3304	3539	2787	3548	3725	1583
Grp Volume(v), veh/h	22	598	41	1196	359	384	98	761	466	141	565	2
Grp Sat Flow(s),veh/h/ln	1652	1770	1583	1652	1770	1583	1652	1770	1393	1774	1863	1583
Q Serve(g_s), s	0.9	20.8	2.7	33.2	8.1	23.0	4.2	28.7	21.0	5.7	18.6	0.1
Cycle Q Clear(g_c), s	0.9	20.8	2.7	33.2	8.1	23.0	4.2	28.7	21.0	5.7	18.6	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	67	1034	463	760	1776	795	140	975	768	157	1034	440
V/C Ratio(X)	0.33	0.58	0.09	1.57	0.20	0.48	0.70	0.78	0.61	0.90	0.55	0.00
Avail Cap(c_a), veh/h	142	1034	463	760	1776	795	146	1113	876	157	1171	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.8	43.5	37.1	55.6	19.9	23.6	68.2	48.3	45.5	68.7	44.4	37.7
Incr Delay (d2), s/veh	2.8	2.4	0.4	264.8	0.3	2.1	13.2	3.2	1.0	43.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	10.5	1.2	43.0	4.1	10.5	2.2	14.4	8.2	3.7	9.6	0.1
LnGrp Delay(d),s/veh	72.6	45.9	37.5	320.4	20.2	25.7	81.5	51.5	46.5	111.8	44.9	37.7
LnGrp LOS	E	D	D	F	C	C	F	D	D	F	D	D
Approach Vol, veh/h		661			1939			1325			708	
Approach Delay, s/veh		46.2			206.5			51.9			58.2	
Approach LOS		D			F			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	39.0	48.0	11.7	45.7	8.7	78.3	12.0	45.4				
Change Period (Y+Rc), s	* 5.8	* 5.8	5.6	5.6	* 5.8	* 5.8	5.6	5.6				
Max Green Setting (Gmax), s	* 33	* 42	6.4	45.4	* 6.2	* 69	6.4	45.4				
Max Q Clear Time (g_c+I1), s	35.2	22.8	6.2	20.6	2.9	25.0	7.7	30.7				
Green Ext Time (p_c), s	0.0	7.6	0.0	12.5	0.0	9.6	0.0	9.1				
Intersection Summary												
HCM 2010 Ctrl Delay			116.7									
HCM 2010 LOS			F									
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

























HCM 2010 Signalized Intersection Summary
78: Poppy Ridge Rd & Big Horn Blvd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	100	30	20	50	40	20	1210	20	90	1150	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1900	1788	1863	1900	1788	1863	1863	1788	1863	1863
Adj Flow Rate, veh/h	109	109	33	22	54	43	22	1315	22	98	1250	54
Adj No. of Lanes	1	1	0	1	1	0	2	2	1	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	219	66	42	97	77	82	1640	734	199	1765	790
Arrive On Green	0.08	0.16	0.16	0.02	0.10	0.10	0.02	0.46	0.46	0.06	0.50	0.50
Sat Flow, veh/h	1703	1374	416	1703	962	766	3304	3539	1583	3304	3539	1583
Grp Volume(v), veh/h	109	0	142	22	0	97	22	1315	22	98	1250	54
Grp Sat Flow(s),veh/h/ln	1703	0	1789	1703	0	1728	1652	1770	1583	1652	1770	1583
Q Serve(g_s), s	4.5	0.0	5.2	0.9	0.0	3.8	0.5	22.6	0.5	2.0	19.5	1.3
Cycle Q Clear(g_c), s	4.5	0.0	5.2	0.9	0.0	3.8	0.5	22.6	0.5	2.0	19.5	1.3
Prop In Lane	1.00		0.23	1.00		0.44	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	0	286	42	0	173	82	1640	734	199	1765	790
V/C Ratio(X)	0.76	0.00	0.50	0.52	0.00	0.56	0.27	0.80	0.03	0.49	0.71	0.07
Avail Cap(c_a), veh/h	1282	0	1950	158	0	742	325	1640	734	325	1765	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	0.0	27.3	34.3	0.0	30.5	34.1	16.3	10.4	32.4	13.8	9.3
Incr Delay (d2), s/veh	8.1	0.0	1.3	9.6	0.0	2.8	1.7	4.2	0.1	1.9	2.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	2.6	0.5	0.0	1.9	0.2	11.9	0.2	1.0	10.0	0.6
LnGrp Delay(d),s/veh	40.0	0.0	28.7	43.9	0.0	33.3	35.8	20.6	10.5	34.3	16.3	9.4
LnGrp LOS	D		C	D		C	D	C	B	C	B	A
Approach Vol, veh/h		251			119			1359			1402	
Approach Delay, s/veh		33.6			35.3			20.6			17.3	
Approach LOS		C			D			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	38.0	7.2	16.8	6.8	40.5	11.4	12.5				
Change Period (Y+Rc), s	* 5	* 5	5.4	5.4	* 5	* 5	5.4	5.4				
Max Green Setting (Gmax), s	* 7	* 33	6.6	77.6	* 7	* 33	53.6	30.6				
Max Q Clear Time (g_c+I1), s	4.0	24.6	2.9	7.2	2.5	21.5	6.5	5.8				
Green Ext Time (p_c), s	0.1	7.6	0.0	1.6	0.0	10.2	0.3	1.4				
Intersection Summary												
HCM 2010 Ctrl Delay			20.7									
HCM 2010 LOS			C									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

























HCM 2010 Signalized Intersection Summary
79: Lotz Pkwy & Poppy Ridge Rd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	120	60	10	50	540	30	1160	20	510	1190	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1863	1788	1863	1863	1788	1863	1863	1788	1863	1863
Adj Flow Rate, veh/h	22	130	65	11	54	587	33	1261	22	554	1293	22
Adj No. of Lanes	1	2	1	1	1	1	2	2	1	2	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	35	1069	478	21	548	466	85	1205	539	591	2511	782
Arrive On Green	0.02	0.30	0.30	0.01	0.29	0.29	0.03	0.34	0.34	0.18	0.49	0.49
Sat Flow, veh/h	1703	3539	1583	1703	1863	1583	3304	3539	1583	3304	5085	1583
Grp Volume(v), veh/h	22	130	65	11	54	587	33	1261	22	554	1293	22
Grp Sat Flow(s),veh/h/ln	1703	1770	1583	1703	1863	1583	1652	1770	1583	1652	1695	1583
Q Serve(g_s), s	1.8	3.8	4.2	0.9	3.0	41.8	1.4	48.4	1.3	23.5	24.5	1.0
Cycle Q Clear(g_c), s	1.8	3.8	4.2	0.9	3.0	41.8	1.4	48.4	1.3	23.5	24.5	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	35	1069	478	21	548	466	85	1205	539	591	2511	782
V/C Ratio(X)	0.63	0.12	0.14	0.52	0.10	1.26	0.39	1.05	0.04	0.94	0.51	0.03
Avail Cap(c_a), veh/h	70	1069	478	70	548	466	149	1205	539	591	2511	782
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.1	35.9	36.1	69.8	36.5	50.2	68.1	46.9	31.3	57.6	24.4	18.5
Incr Delay (d2), s/veh	17.4	0.1	0.1	18.5	0.1	133.6	2.9	38.8	0.1	22.9	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.8	1.9	0.5	1.6	35.6	0.7	30.1	0.6	12.6	11.7	0.5
LnGrp Delay(d),s/veh	86.5	36.0	36.2	88.2	36.5	183.7	71.0	85.7	31.5	80.5	25.2	18.5
LnGrp LOS	F	D	D	F	D	F	E	F	C	F	C	B
Approach Vol, veh/h		217			652			1316			1869	
Approach Delay, s/veh		41.2			169.9			84.4			41.5	
Approach LOS		D			F			F			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.0	54.0	8.0	49.1	9.2	75.8	9.1	48.0				
Change Period (Y+Rc), s	5.6	5.6	* 6.2	* 6.2	5.6	5.6	* 6.2	* 6.2				
Max Green Setting (Gmax), s	25.4	48.4	* 5.8	* 42	6.4	67.4	* 5.8	* 42				
Max Q Clear Time (g_c+I1), s	25.5	50.4	2.9	6.2	3.4	26.5	3.8	43.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	4.0	0.0	29.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			76.1									
HCM 2010 LOS			E									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

























HCM 2010 Signalized Intersection Summary
80: Bilby Rd & Big Horn Blvd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	200	120	60	50	80	90	880	120	210	940	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1863	1788	1863	1863	1788	1863	1863	1788	1863	1863
Adj Flow Rate, veh/h	98	217	130	65	54	87	98	957	130	228	1022	76
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	154	1228	549	138	1210	541	154	1155	517	213	1219	545
Arrive On Green	0.05	0.35	0.35	0.04	0.34	0.34	0.05	0.33	0.33	0.06	0.34	0.34
Sat Flow, veh/h	3304	3539	1583	3304	3539	1583	3304	3539	1583	3304	3539	1583
Grp Volume(v), veh/h	98	217	130	65	54	87	98	957	130	228	1022	76
Grp Sat Flow(s),veh/h/ln	1652	1770	1583	1652	1770	1583	1652	1770	1583	1652	1770	1583
Q Serve(g_s), s	2.9	4.3	5.9	1.9	1.0	3.8	2.9	25.1	6.1	6.5	26.8	3.3
Cycle Q Clear(g_c), s	2.9	4.3	5.9	1.9	1.0	3.8	2.9	25.1	6.1	6.5	26.8	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	154	1228	549	138	1210	541	154	1155	517	213	1219	545
V/C Ratio(X)	0.64	0.18	0.24	0.47	0.04	0.16	0.64	0.83	0.25	1.07	0.84	0.14
Avail Cap(c_a), veh/h	210	1228	549	210	1210	541	279	1249	559	213	1219	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	22.9	23.4	47.1	22.1	23.0	47.1	31.3	24.9	47.0	30.4	22.7
Incr Delay (d2), s/veh	4.3	0.3	1.0	2.5	0.1	0.6	4.3	4.5	0.3	80.7	5.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.2	2.7	0.9	0.5	1.8	1.4	13.0	2.7	5.3	14.0	1.5
LnGrp Delay(d),s/veh	51.5	23.2	24.4	49.6	22.2	23.7	51.5	35.8	25.1	127.8	35.7	22.8
LnGrp LOS	D	C	C	D	C	C	D	D	C	F	D	C
Approach Vol, veh/h		445			206			1185			1326	
Approach Delay, s/veh		29.8			31.5			35.9			50.8	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	40.5	10.2	40.1	10.3	40.0	12.0	38.3				
Change Period (Y+Rc), s	5.6	5.6	* 5.5	* 5.5	5.6	5.6	* 5.5	* 5.5				
Max Green Setting (Gmax), s	6.4	34.4	* 8.5	* 34	6.4	34.4	* 6.5	* 36				
Max Q Clear Time (g_c+I1), s	3.9	7.9	4.9	28.8	4.9	5.8	8.5	27.1				
Green Ext Time (p_c), s	0.0	2.4	0.1	4.1	0.0	2.4	0.0	5.7				
Intersection Summary												
HCM 2010 Ctrl Delay			41.0									
HCM 2010 LOS			D									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

























HCM 2010 Signalized Intersection Summary
81: Lotz Pkwy & Bilby Rd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	130	210	10	20	290	80	10	690	20	90	500	270
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1863	1788	1863	1863	1788	1863	1863	1788	1863	1863
Adj Flow Rate, veh/h	141	228	11	22	315	87	11	750	22	98	543	293
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	1416	633	61	1261	564	35	1045	468	156	1174	525
Arrive On Green	0.06	0.40	0.40	0.02	0.36	0.36	0.01	0.30	0.30	0.05	0.33	0.33
Sat Flow, veh/h	3304	3539	1583	3304	3539	1583	3304	3539	1583	3304	3539	1583
Grp Volume(v), veh/h	141	228	11	22	315	87	11	750	22	98	543	293
Grp Sat Flow(s),veh/h/ln	1652	1770	1583	1652	1770	1583	1652	1770	1583	1652	1770	1583
Q Serve(g_s), s	3.9	3.9	0.4	0.6	5.9	3.5	0.3	17.8	0.9	2.7	11.4	14.2
Cycle Q Clear(g_c), s	3.9	3.9	0.4	0.6	5.9	3.5	0.3	17.8	0.9	2.7	11.4	14.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	206	1416	633	61	1261	564	35	1045	468	156	1174	525
V/C Ratio(X)	0.68	0.16	0.02	0.36	0.25	0.15	0.31	0.72	0.05	0.63	0.46	0.56
Avail Cap(c_a), veh/h	296	1416	633	226	1261	564	226	1261	564	261	1299	581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	18.0	17.0	45.5	21.3	20.6	46.0	29.5	23.6	43.9	24.7	25.7
Incr Delay (d2), s/veh	4.0	0.2	0.1	3.5	0.5	0.6	5.0	1.6	0.0	4.2	0.3	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.9	0.2	0.3	3.0	1.6	0.2	8.9	0.4	1.3	5.6	6.3
LnGrp Delay(d),s/veh	47.0	18.3	17.0	48.9	21.8	21.1	51.0	31.1	23.6	48.0	25.0	26.6
LnGrp LOS	D	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		380			424			783			934	
Approach Delay, s/veh		28.9			23.1			31.2			27.9	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	43.1	6.6	36.7	11.5	39.0	10.0	33.3				
Change Period (Y+Rc), s	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6				
Max Green Setting (Gmax), s	6.4	35.4	6.4	34.4	8.4	33.4	7.4	33.4				
Max Q Clear Time (g_c+I1), s	2.6	5.9	2.3	16.2	5.9	7.9	4.7	19.8				
Green Ext Time (p_c), s	0.0	4.0	0.0	9.5	0.1	3.9	0.1	7.9				
Intersection Summary												
HCM 2010 Ctrl Delay				28.3								
HCM 2010 LOS				C								

























HCM 2010 Signalized Intersection Summary
82: Kammerer Rd & Big Horn Blvd

Elk Grove General Plan Update
Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	330	1860	300	480	1470	400	350	690	530	230	490	230
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1863	1788	1863	1863	1788	1863	1863	1788	1863	1863
Adj Flow Rate, veh/h	359	2022	326	522	1598	435	380	750	576	250	533	250
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	1387	621	326	1482	663	262	1036	463	178	941	421
Arrive On Green	0.07	0.39	0.39	0.10	0.42	0.42	0.08	0.29	0.29	0.05	0.27	0.27
Sat Flow, veh/h	3304	3539	1583	3304	3539	1583	3304	3539	1583	3304	3539	1583
Grp Volume(v), veh/h	359	2022	326	522	1598	435	380	750	576	250	533	250
Grp Sat Flow(s),veh/h/ln	1652	1770	1583	1652	1770	1583	1652	1770	1583	1652	1770	1583
Q Serve(g_s), s	10.8	58.8	23.6	14.8	62.8	33.0	11.9	28.5	43.9	8.1	19.5	20.6
Cycle Q Clear(g_c), s	10.8	58.8	23.6	14.8	62.8	33.0	11.9	28.5	43.9	8.1	19.5	20.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	1387	621	326	1482	663	262	1036	463	178	941	421
V/C Ratio(X)	1.51	1.46	0.53	1.60	1.08	0.66	1.45	0.72	1.24	1.40	0.57	0.59
Avail Cap(c_a), veh/h	238	1387	621	326	1482	663	262	1036	463	178	946	423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.6	45.6	34.9	67.6	43.6	34.9	69.1	47.6	53.0	70.9	47.6	48.0
Incr Delay (d2), s/veh	249.7	209.9	3.2	284.6	47.7	5.0	222.5	2.5	126.5	210.7	0.8	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	69.2	10.9	19.6	40.5	15.3	13.5	14.3	35.5	8.9	9.7	9.3
LnGrp Delay(d),s/veh	319.3	255.5	38.1	352.2	91.3	40.0	291.6	50.1	179.6	281.7	48.4	50.2
LnGrp LOS	F	F	D	F	F	D	F	D	F	F	D	D
Approach Vol, veh/h		2707			2555			1706			1033	
Approach Delay, s/veh		237.8			135.8			147.6			105.3	
Approach LOS		F			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.0	65.0	18.0	46.0	17.0	69.0	14.0	50.0				
Change Period (Y+Rc), s	6.2	6.2	* 6.1	* 6.1	6.2	6.2	5.9	* 6.1				
Max Green Setting (Gmax), s	14.8	58.8	* 12	* 40	10.8	62.8	8.1	* 44				
Max Q Clear Time (g_c+I1), s	16.8	60.8	13.9	22.6	12.8	64.8	10.1	45.9				
Green Ext Time (p_c), s	0.0	0.0	0.0	10.7	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			168.9									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
 83: Kammerer Rd & Lotz Pkwy

Elk Grove General Plan Update
 Cumulative Conditions - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	140	2160	420	450	2070	230	550	700	560	100	410	110
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1863	1788	1863	1863	1788	1863	1863	1788	1863	1863
Adj Flow Rate, veh/h	152	2348	457	489	2250	250	598	761	609	109	446	120
Adj No. of Lanes	2	4	1	2	4	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	2363	584	395	2773	685	285	1035	463	155	896	401
Arrive On Green	0.06	0.37	0.37	0.12	0.43	0.43	0.09	0.29	0.29	0.05	0.25	0.25
Sat Flow, veh/h	3304	6408	1583	3304	6408	1583	3304	3539	1583	3304	3539	1583
Grp Volume(v), veh/h	152	2348	457	489	2250	250	598	761	609	109	446	120
Grp Sat Flow(s),veh/h/ln	1652	1602	1583	1652	1602	1583	1652	1770	1583	1652	1770	1583
Q Serve(g_s), s	6.4	51.3	36.0	16.8	43.1	14.9	12.1	27.2	41.1	4.6	15.1	8.6
Cycle Q Clear(g_c), s	6.4	51.3	36.0	16.8	43.1	14.9	12.1	27.2	41.1	4.6	15.1	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	2363	584	395	2773	685	285	1035	463	155	896	401
V/C Ratio(X)	0.83	0.99	0.78	1.24	0.81	0.36	2.10	0.73	1.31	0.70	0.50	0.30
Avail Cap(c_a), veh/h	183	2363	584	395	2773	685	285	1035	463	261	1010	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.7	44.2	39.3	61.8	34.8	26.8	64.2	44.8	49.7	66.0	44.8	42.4
Incr Delay (d2), s/veh	25.9	17.1	10.1	126.9	2.7	1.5	507.4	2.8	156.3	5.8	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	25.5	17.3	14.6	19.6	6.8	25.5	13.7	38.0	2.2	7.4	3.8
LnGrp Delay(d),s/veh	91.6	61.3	49.4	188.7	37.5	28.3	571.5	47.5	206.0	71.7	45.2	42.8
LnGrp LOS	F	E	D	F	D	C	F	D	F	E	D	D
Approach Vol, veh/h		2957			2989			1968			675	
Approach Delay, s/veh		61.0			61.5			255.8			49.1	
Approach LOS		E			E			F			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.0	58.0	18.0	41.5	14.0	67.0	12.5	47.0				
Change Period (Y+Rc), s	6.2	6.2	* 5.9	* 5.9	6.2	6.2	* 5.9	* 5.9				
Max Green Setting (Gmax), s	16.8	51.8	* 12	* 40	7.8	60.8	* 11	* 41				
Max Q Clear Time (g_c+I1), s	18.8	53.3	14.1	17.1	8.4	45.1	6.6	43.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	11.5	0.0	15.6	0.1	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			104.9									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

























HCM 2010 Signalized Intersection Summary
1: Calvin Rd & Elk Grove Florin Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	610	1810	300	800	1890	130	420	1210	470	290	1380	330
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	622	1847	196	816	1929	85	429	1235	371	296	1408	201
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	482	1546	470	623	1754	532	341	1354	412	308	1306	396
Arrive On Green	0.14	0.31	0.31	0.18	0.35	0.35	0.10	0.27	0.27	0.09	0.26	0.26
Sat Flow, veh/h	3408	5036	1531	3408	5036	1527	3408	5036	1531	3408	5036	1528
Grp Volume(v), veh/h	622	1847	196	816	1929	85	429	1235	371	296	1408	201
Grp Sat Flow(s),veh/h/ln	1704	1679	1531	1704	1679	1527	1704	1679	1531	1704	1679	1528
Q Serve(g_s), s	20.5	44.5	14.8	26.5	50.5	5.6	14.5	34.4	33.9	12.5	37.6	16.3
Cycle Q Clear(g_c), s	20.5	44.5	14.8	26.5	50.5	5.6	14.5	34.4	33.9	12.5	37.6	16.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	482	1546	470	623	1754	532	341	1354	412	308	1306	396
V/C Ratio(X)	1.29	1.20	0.42	1.31	1.10	0.16	1.26	0.91	0.90	0.96	1.08	0.51
Avail Cap(c_a), veh/h	482	1546	470	623	1754	532	341	1354	412	308	1306	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	50.3	39.9	59.3	47.2	32.6	65.3	51.3	51.1	65.7	53.7	45.8
Incr Delay (d2), s/veh	145.8	94.4	0.9	150.8	54.3	0.2	138.1	9.9	23.2	40.5	48.9	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.4	34.1	6.3	25.5	32.2	2.4	13.4	17.3	17.0	7.7	23.3	7.1
LnGrp Delay(d),s/veh	208.0	144.7	40.8	210.1	101.5	32.8	203.3	61.2	74.4	106.2	102.6	47.9
LnGrp LOS	F	F	D	F	F	C	F	E	E	F	F	D
Approach Vol, veh/h		2665			2830			2035			1905	
Approach Delay, s/veh		151.8			130.8			93.6			97.4	
Approach LOS		F			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	43.0	26.0	56.0	18.6	44.4	32.0	50.0				
Change Period (Y+Rc), s	5.5	* 5.4	5.5	5.5	5.5	* 5.4	5.5	5.5				
Max Green Setting (Gmax), s	14.5	* 38	20.5	50.5	13.1	* 39	26.5	44.5				
Max Q Clear Time (g_c+I1), s	16.5	39.6	22.5	52.5	14.5	36.4	28.5	46.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			122.0									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

























HCM 2010 Signalized Intersection Summary
2: Calvine Rd & Waterman Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	570	1550	160	300	2080	50	120	370	100	80	500	610
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	613	1667	76	323	2237	53	129	398	98	86	538	638
Adj No. of Lanes	2	3	1	2	3	1	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	533	2265	705	365	2017	620	111	872	390	106	858	384
Arrive On Green	0.16	0.45	0.45	0.11	0.40	0.40	0.06	0.25	0.25	0.06	0.24	0.24
Sat Flow, veh/h	3408	5036	1567	3408	5036	1547	1757	3505	1568	1757	3505	1568
Grp Volume(v), veh/h	613	1667	76	323	2237	53	129	398	98	86	538	638
Grp Sat Flow(s),veh/h/ln	1704	1679	1567	1704	1679	1547	1757	1752	1568	1757	1752	1568
Q Serve(g_s), s	23.5	40.9	4.2	14.0	60.2	3.2	9.5	14.5	7.5	7.3	20.6	36.8
Cycle Q Clear(g_c), s	23.5	40.9	4.2	14.0	60.2	3.2	9.5	14.5	7.5	7.3	20.6	36.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	533	2265	705	365	2017	620	111	872	390	106	858	384
V/C Ratio(X)	1.15	0.74	0.11	0.88	1.11	0.09	1.16	0.46	0.25	0.82	0.63	1.66
Avail Cap(c_a), veh/h	533	2265	705	401	2017	620	111	872	390	173	858	384
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.4	34.0	23.9	66.2	45.0	28.0	70.4	47.9	45.3	69.8	50.6	56.7
Incr Delay (d2), s/veh	87.6	1.1	0.0	18.0	56.9	0.0	135.4	0.1	0.1	5.6	1.1	309.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.5	19.2	1.8	7.6	38.5	1.4	8.8	7.0	3.3	3.7	10.1	48.9
LnGrp Delay(d),s/veh	151.0	35.1	23.9	84.2	101.9	28.0	205.8	48.0	45.4	75.4	51.7	365.9
LnGrp LOS	F	D	C	F	F	C	F	D	D	E	D	F
Approach Vol, veh/h		2356			2613			625			1262	
Approach Delay, s/veh		64.9			98.3			80.1			212.2	
Approach LOS		E			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	28.0	65.3	15.0	42.0	20.6	72.7	14.4	42.6				
Change Period (Y+Rc), s	4.5	* 5.1	5.5	* 5.2	4.5	5.1	* 5.4	* 5.2				
Max Green Setting (Gmax), s	23.5	* 60	9.5	* 37	17.7	65.7	* 15	* 32				
Max Q Clear Time (g_c+I1), s	25.5	62.2	11.5	38.8	16.0	42.9	9.3	16.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	14.3	0.0	2.2				
Intersection Summary												
HCM 2010 Ctrl Delay			106.1									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
3: Bradshaw Rd & Calvin Rd
























Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	170	1120	150	50	1480	180	130	930	60	390	1200	630
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	173	1143	134	51	1510	135	133	949	53	398	1224	333
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	198	1711	533	89	1550	483	166	1060	474	415	1315	581
Arrive On Green	0.06	0.34	0.34	0.03	0.31	0.31	0.05	0.30	0.30	0.12	0.38	0.38
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	3505	1568	3408	3505	1548
Grp Volume(v), veh/h	173	1143	134	51	1510	135	133	949	53	398	1224	333
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1752	1568	1704	1752	1548
Q Serve(g_s), s	5.5	21.0	6.7	1.6	32.2	7.1	4.2	28.1	2.6	12.6	36.4	18.6
Cycle Q Clear(g_c), s	5.5	21.0	6.7	1.6	32.2	7.1	4.2	28.1	2.6	12.6	36.4	18.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	198	1711	533	89	1550	483	166	1060	474	415	1315	581
V/C Ratio(X)	0.87	0.67	0.25	0.57	0.97	0.28	0.80	0.90	0.11	0.96	0.93	0.57
Avail Cap(c_a), veh/h	198	1711	533	157	1550	483	166	1130	506	415	1363	602
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.7	30.6	25.9	52.2	37.1	28.4	51.1	36.2	27.3	47.4	32.5	27.0
Incr Delay (d2), s/veh	31.3	0.8	0.1	2.2	17.0	0.1	21.8	8.6	0.0	33.7	11.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	9.9	2.9	0.8	17.3	3.1	2.5	14.8	1.1	7.9	19.5	8.1
LnGrp Delay(d),s/veh	82.0	31.4	26.0	54.4	54.1	28.6	72.9	44.9	27.4	81.1	43.6	27.7
LnGrp LOS	F	C	C	D	D	C	E	D	C	F	D	C
Approach Vol, veh/h		1450			1696			1135			1955	
Approach Delay, s/veh		37.0			52.1			47.3			48.5	
Approach LOS		D			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	38.9	10.8	47.0	8.3	42.4	18.7	39.1				
Change Period (Y+Rc), s	5.5	* 5.5	5.5	6.3	5.5	* 5.5	5.5	* 6.3				
Max Green Setting (Gmax), s	6.3	* 33	5.3	42.2	5.0	* 35	13.2	* 35				
Max Q Clear Time (g_c+I1), s	7.5	34.2	6.2	38.4	3.6	23.0	14.6	30.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.3	0.0	5.9	0.0	2.7				
Intersection Summary												
HCM 2010 Ctrl Delay			46.6									
HCM 2010 LOS			D									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary













4: Excelsior Rd & Calvin Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	870	260	30	1100	190	190	410	30	160	650	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	65	935	280	32	1183	204	204	441	32	172	699	172
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	52	1043	467	40	1020	456	157	684	50	196	607	149
Arrive On Green	0.03	0.30	0.30	0.02	0.29	0.29	0.09	0.40	0.40	0.11	0.42	0.42
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	1700	123	1757	1431	352
Grp Volume(v), veh/h	65	935	280	32	1183	204	204	0	473	172	0	871
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	0	1823	1757	0	1783
Q Serve(g_s), s	4.0	34.4	20.6	2.4	39.2	14.3	12.0	0.0	28.2	13.0	0.0	57.2
Cycle Q Clear(g_c), s	4.0	34.4	20.6	2.4	39.2	14.3	12.0	0.0	28.2	13.0	0.0	57.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.20
Lane Grp Cap(c), veh/h	52	1043	467	40	1020	456	157	0	733	196	0	757
V/C Ratio(X)	1.25	0.90	0.60	0.79	1.16	0.45	1.30	0.00	0.64	0.88	0.00	1.15
Avail Cap(c_a), veh/h	52	1043	467	52	1020	456	157	0	733	209	0	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	65.3	45.3	40.4	65.5	47.8	38.9	61.3	0.0	32.5	58.9	0.0	38.8
Incr Delay (d2), s/veh	205.0	10.2	2.1	45.0	83.0	0.7	175.1	0.0	2.0	30.8	0.0	82.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	18.1	9.2	1.7	30.6	6.3	13.4	0.0	14.6	8.0	0.0	45.4
LnGrp Delay(d),s/veh	270.4	55.5	42.6	110.4	130.8	39.6	236.4	0.0	34.4	89.8	0.0	121.4
LnGrp LOS	F	E	D	F	F	D	F		C	F		F
Approach Vol, veh/h		1280			1419			677				1043
Approach Delay, s/veh		63.6			117.2			95.3				116.2
Approach LOS		E			F			F				F
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.0	63.4	7.1	45.2	16.0	66.4	8.0	44.3				
Change Period (Y+Rc), s	4.0	9.2	4.0	5.1	4.0	* 9.2	4.0	* 5.1				
Max Green Setting (Gmax), s	16.0	48.8	4.0	38.9	12.0	* 57	4.0	* 39				
Max Q Clear Time (g_c+I1), s	15.0	30.2	4.4	36.4	14.0	59.2	6.0	41.2				
Green Ext Time (p_c), s	0.0	8.7	0.0	2.3	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			98.1									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
5: Grant Line Rd & Calvin Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

								
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Volume (veh/h)	130	990	1160	930	1370	280		
Number	3	18	1	6	2	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1863	1900	1900	1900		
Adj Flow Rate, veh/h	134	992	1196	959	1412	177		
Adj No. of Lanes	1	2	2	2	2	1		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97		
Percent Heavy Veh, %	0	0	2	0	0	0		
Cap, veh/h	236	370	1190	2820	1463	654		
Arrive On Green	0.13	0.13	0.35	0.78	0.41	0.41		
Sat Flow, veh/h	1810	2842	3442	3705	3705	1615		
Grp Volume(v), veh/h	134	992	1196	959	1412	177		
Grp Sat Flow(s),veh/h/ln	1810	1421	1721	1805	1805	1615		
Q Serve(g_s), s	8.3	15.6	41.4	9.5	45.7	8.8		
Cycle Q Clear(g_c), s	8.3	15.6	41.4	9.5	45.7	8.8		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	236	370	1190	2820	1463	654		
V/C Ratio(X)	0.57	2.68	1.00	0.34	0.97	0.27		
Avail Cap(c_a), veh/h	236	370	1190	2829	1472	658		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	48.9	52.1	39.2	3.9	34.8	23.8		
Incr Delay (d2), s/veh	2.0	762.8	27.3	0.0	15.8	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.3	45.4	24.0	4.7	25.9	3.9		
LnGrp Delay(d),s/veh	50.9	814.9	66.4	3.9	50.5	23.9		
LnGrp LOS	D	F	F	A	D	C		
Approach Vol, veh/h	1126			2155	1589			
Approach Delay, s/veh	724.0			38.6	47.6			
Approach LOS	F			D	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	45.0	53.6				98.6		21.1
Change Period (Y+Rc), s	* 3.6	5.1				5.1		5.5
Max Green Setting (Gmax), s	* 41	48.8				93.8		15.6
Max Q Clear Time (g_c+I1), s	43.4	47.7				11.5		17.6
Green Ext Time (p_c), s	0.0	0.8				6.4		0.0
Intersection Summary								
HCM 2010 Ctrl Delay	200.0							
HCM 2010 LOS	F							
Notes								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

HCM 2010 Signalized Intersection Summary
6: Bruceville Rd & Center Parkway/Sheldon Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	570	400	1010	720	310	340	760	790	470	1130	40
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	32	606	219	1074	766	235	362	809	605	500	1202	23
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	85	955	293	693	1854	570	378	1788	548	341	1733	538
Arrive On Green	0.02	0.19	0.19	0.20	0.37	0.37	0.04	0.12	0.12	0.10	0.34	0.34
Sat Flow, veh/h	3408	5036	1543	3408	5036	1547	3408	5036	1544	3408	5036	1564
Grp Volume(v), veh/h	32	606	219	1074	766	235	362	809	605	500	1202	23
Grp Sat Flow(s),veh/h/ln	1704	1679	1543	1704	1679	1547	1704	1679	1544	1704	1679	1564
Q Serve(g_s), s	1.3	16.1	19.4	29.5	16.4	16.4	15.4	21.7	51.5	14.5	29.8	1.4
Cycle Q Clear(g_c), s	1.3	16.1	19.4	29.5	16.4	16.4	15.4	21.7	51.5	14.5	29.8	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	85	955	293	693	1854	570	378	1788	548	341	1733	538
V/C Ratio(X)	0.38	0.63	0.75	1.55	0.41	0.41	0.96	0.45	1.10	1.47	0.69	0.04
Avail Cap(c_a), veh/h	118	1181	362	693	2032	624	378	1788	548	341	1733	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.6	54.1	55.5	57.8	34.1	34.1	69.5	50.9	64.0	65.3	41.0	31.7
Incr Delay (d2), s/veh	1.0	0.3	4.8	254.1	0.1	0.2	16.9	0.3	56.0	225.6	2.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	7.5	8.7	38.3	7.6	7.1	8.2	10.2	30.6	17.5	14.2	0.6
LnGrp Delay(d),s/veh	70.6	54.5	60.3	311.9	34.2	34.3	86.4	51.1	120.0	290.9	43.3	31.8
LnGrp LOS	E	D	E	F	C	C	F	D	F	F	D	C
Approach Vol, veh/h		857			2075			1776			1725	
Approach Delay, s/veh		56.5			177.9			81.8			114.9	
Approach LOS		E			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.6	55.4	9.1	58.9	20.0	57.0	35.0	33.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	16.1	43.4	5.0	58.5	14.5	45.0	29.5	34.0				
Max Q Clear Time (g_c+I1), s	17.4	31.8	3.3	18.4	16.5	53.5	31.5	21.4				
Green Ext Time (p_c), s	0.0	7.9	0.0	8.7	0.0	0.0	0.0	5.9				

Intersection Summary

HCM 2010 Ctrl Delay	118.3
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
PM Peak Hour

Intersection 7 Jocelyn Wy-Lewis Stein Rd/Sheldon Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	500	359	71.8%	255.2	28.5	F
	Through	100	66	65.5%	239.0	32.1	F
	Right Turn	480	357	74.4%	201.0	28.2	F
	Subtotal	1,080	781	72.3%	229.3	28.5	F
SB	Left Turn	260	200	77.0%	297.7	113.7	F
	Through	110	85	77.3%	160.7	91.4	F
	Right Turn	50	41	82.4%	124.5	88.1	F
	Subtotal	420	326	77.7%	239.3	104.2	F
EB	Left Turn	80	60	75.0%	141.7	26.8	F
	Through	1,620	1,314	81.1%	152.3	15.5	F
	Right Turn	230	206	89.6%	24.3	8.4	C
	Subtotal	1,930	1,581	81.9%	135.2	14.6	F
WB	Left Turn	390	372	95.3%	69.7	13.9	E
	Through	1,770	1,711	96.7%	18.7	2.1	B
	Right Turn	250	223	89.2%	10.3	1.4	B
	Subtotal	2,410	2,306	95.7%	26.2	3.5	C
Total		5,840	4,994	85.5%	105.8	7.6	F

Intersection 8 SR 99 SB Ramps/Sheldon Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	380	371	97.6%	51.0	4.5	D
	Through						
	Right Turn	840	820	97.6%	63.1	14.9	E
	Subtotal	1,220	1,191	97.6%	59.5	11.1	E
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	10	11	110.4%	69.1	43.4	E
	Through	1,940	1,560	80.4%	33.1	8.9	C
	Right Turn	550	435	79.2%	18.3	5.7	B
	Subtotal	2,500	2,006	80.2%	30.2	8.3	C
WB	Left Turn	570	481	84.4%	70.0	14.4	E
	Through	2,120	1,935	91.3%	10.7	0.6	B
	Right Turn						
	Subtotal	2,690	2,416	89.8%	22.7	4.0	C
Total		6,410	5,613	87.6%	33.2	4.4	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
PM Peak Hour

Intersection 9 SR 99 NB Ramps/Sheldon Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	610	574	94.2%	100.2	24.0	F
	Through						
	Right Turn	570	526	92.2%	62.6	12.9	E
	Subtotal	1,180	1,100	93.2%	82.3	18.2	F
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	2,170	1,819	83.8%	41.4	18.8	D
	Right Turn	610	472	77.4%	4.4	0.6	A
	Subtotal	2,780	2,291	82.4%	33.9	15.4	C
WB	Left Turn						
	Through	2,080	1,937	93.1%	12.9	2.7	B
	Right Turn	640	569	88.8%	16.2	2.3	B
	Subtotal	2,720	2,505	92.1%	13.7	2.0	B
Total		6,680	5,896	88.3%	34.3	7.2	C

Intersection 10 E Stockton Blvd/Sheldon Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	440	375	85.3%	176.9	65.8	F
	Through	150	132	88.1%	99.5	59.9	F
	Right Turn	200	177	88.3%	85.8	55.1	F
	Subtotal	790	684	86.6%	139.1	63.0	F
SB	Left Turn	20	21	103.0%	70.7	20.3	E
	Through	200	206	103.0%	45.2	8.2	D
	Right Turn	550	443	80.6%	141.3	51.2	F
	Subtotal	770	670	87.0%	108.6	34.8	F
EB	Left Turn	310	254	82.0%	100.8	29.5	F
	Through	1,950	1,702	87.3%	45.5	11.4	D
	Right Turn	390	326	83.7%	23.4	5.5	C
	Subtotal	2,650	2,282	86.1%	48.7	9.1	D
WB	Left Turn	120	102	85.3%	192.1	64.7	F
	Through	1,810	1,683	93.0%	81.3	36.5	F
	Right Turn	20	23	114.1%	51.2	44.3	D
	Subtotal	1,950	1,808	92.7%	87.4	36.4	F
Total		6,160	5,445	88.4%	80.2	17.0	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

























Elk Grove General Plan Update
Cumulative Conditions
PM Peak Hour

Intersection 11 Power Inn Rd-Garity Dr/Sheldon Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	40	45	112.2%	72.2	20.6	E
	Through	50	48	96.4%	48.3	9.0	D
	Right Turn	50	50	100.1%	25.3	3.7	C
	Subtotal	140	143	102.3%	48.3	8.3	D
SB	Left Turn	200	187	93.3%	70.4	10.3	E
	Through	40	40	100.3%	47.5	13.8	D
	Right Turn	380	358	94.3%	29.2	5.2	C
	Subtotal	620	585	94.4%	43.8	3.9	D
EB	Left Turn	450	381	84.6%	37.2	5.7	D
	Through	1,650	1,428	86.6%	35.1	4.1	D
	Right Turn	30	22	73.6%	17.8	3.7	B
	Subtotal	2,130	1,831	86.0%	35.4	3.8	D
WB	Left Turn	50	49	97.2%	73.0	11.1	E
	Through	1,470	1,468	99.9%	39.3	6.7	D
	Right Turn	240	226	94.0%	24.3	3.7	C
	Subtotal	1,760	1,742	99.0%	38.3	6.1	D
Total		4,650	4,302	92.5%	38.1	3.3	D

HCM 2010 Signalized Intersection Summary
 12: Sheldon Rd & Elk Grove Florin Rd

Cumulative Conditions
 Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	850	660	150	120	850	100	110	1120	90	170	1450	810
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	885	688	56	125	885	34	115	1167	32	177	1510	677
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	722	1413	632	170	846	378	134	1551	483	222	1681	523
Arrive On Green	0.21	0.40	0.40	0.05	0.24	0.24	0.04	0.31	0.31	0.07	0.33	0.33
Sat Flow, veh/h	3408	3505	1567	3408	3505	1568	3408	5036	1568	3408	5036	1567
Grp Volume(v), veh/h	885	688	56	125	885	34	115	1167	32	177	1510	677
Grp Sat Flow(s),veh/h/ln	1704	1752	1567	1704	1752	1568	1704	1679	1568	1704	1679	1567
Q Serve(g_s), s	30.7	21.1	3.2	5.2	35.0	2.4	4.9	30.3	2.1	7.4	41.4	48.4
Cycle Q Clear(g_c), s	30.7	21.1	3.2	5.2	35.0	2.4	4.9	30.3	2.1	7.4	41.4	48.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	722	1413	632	170	846	378	134	1551	483	222	1681	523
V/C Ratio(X)	1.23	0.49	0.09	0.73	1.05	0.09	0.86	0.75	0.07	0.80	0.90	1.29
Avail Cap(c_a), veh/h	722	1413	632	235	846	378	134	1551	483	237	1681	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.2	32.1	26.8	67.9	55.0	42.6	69.2	45.2	35.4	66.8	46.0	48.3
Incr Delay (d2), s/veh	114.0	0.1	0.0	3.9	43.7	0.0	37.8	1.9	0.0	14.7	6.7	146.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.9	10.2	1.4	2.6	22.1	1.1	3.0	14.3	0.9	3.9	20.2	42.1
LnGrp Delay(d),s/veh	171.1	32.2	26.8	71.9	98.7	42.7	107.0	47.1	35.5	81.5	52.7	194.6
LnGrp LOS	F	C	C	E	F	D	F	D	D	F	D	F
Approach Vol, veh/h		1629			1044			1314			2364	
Approach Delay, s/veh		107.5			93.6			52.0			95.5	
Approach LOS		F			F			D			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	54.7	37.0	41.3	15.7	51.0	13.5	64.8				
Change Period (Y+Rc), s	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3				
Max Green Setting (Gmax), s	5.7	48.4	30.7	35.0	10.1	44.0	10.0	55.7				
Max Q Clear Time (g_c+I1), s	6.9	50.4	32.7	37.0	9.4	32.3	7.2	23.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	9.5	0.0	8.5				
Intersection Summary												
HCM 2010 Ctrl Delay			89.3									
HCM 2010 LOS			F									

MOVEMENT SUMMARY

 Site: 13 [Waterman Road/Sheldon Road_PM]

Bradshaw Road/Sheldon Road Intersection Improvements
 2035 Volumes (3% per year growth)
 AM Peak
 Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Bradshaw Road											
3	L2	133	3.0	0.908	38.5	LOS E	13.1	335.1	1.00	1.32	23.0
8	T1	490	3.0	0.908	38.5	LOS E	13.1	335.1	1.00	1.32	23.0
18	R2	31	3.0	0.908	38.5	LOS E	13.1	335.1	1.00	1.32	22.5
Approach		653	3.0	0.908	38.5	LOS E	13.1	335.1	1.00	1.32	22.9
East: Sheldon Road											
1	L2	31	3.0	0.422	13.7	LOS B	1.8	46.0	0.67	0.71	30.8
6	T1	173	3.0	0.422	13.7	LOS B	1.8	46.0	0.67	0.71	30.7
16	R2	20	3.0	0.422	13.7	LOS B	1.8	46.0	0.67	0.71	30.0
Approach		224	3.0	0.422	13.7	LOS B	1.8	46.0	0.67	0.71	30.7
North: Bradshaw Road											
7	L2	31	3.0	0.882	32.9	LOS D	12.4	316.6	0.98	1.22	24.6
4	T1	653	3.0	0.882	32.9	LOS D	12.4	316.6	0.98	1.22	24.6
14	R2	184	3.0	0.229	7.0	LOS A	0.9	22.4	0.44	0.37	33.1
Approach		867	3.0	0.882	27.4	LOS D	12.4	316.6	0.87	1.04	25.9
West: Sheldon Road											
5	L2	133	3.0	1.669	329.3	LOS F	121.6	3114.2	1.00	5.18	5.8
2	T1	500	3.0	1.669	329.3	LOS F	121.6	3114.2	1.00	5.18	5.8
12	R2	245	3.0	1.669	329.3	LOS F	121.6	3114.2	1.00	5.18	5.8
Approach		878	3.0	1.669	329.3	LOS F	121.6	3114.2	1.00	5.18	5.8
All Vehicles		2622	3.0	1.669	130.0	LOS F	121.6	3114.2	0.93	2.47	11.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 14 [Bradshaw Road/Sheldon Road-PM]

Bradshaw Road/Sheldon Road Intersection Improvements
 2035 Volumes (3% per year growth)
 AM Peak
 Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Bradshaw Road											
3	L2	41	3.0	0.924	42.2	LOS E	13.8	354.3	1.00	1.37	22.3
8	T1	1194	3.0	0.924	42.2	LOS E	13.8	354.3	1.00	1.37	22.3
18	R2	51	3.0	0.924	42.2	LOS E	13.8	354.3	1.00	1.37	21.9
Approach		1286	3.0	0.924	42.2	LOS E	13.8	354.3	1.00	1.37	22.3
East: Sheldon Road											
1	L2	92	3.0	2.002	480.7	LOS F	142.2	3641.4	1.00	6.32	4.2
6	T1	735	3.0	2.002	480.7	LOS F	142.2	3641.4	1.00	6.32	4.2
16	R2	31	3.0	2.002	480.7	LOS F	142.2	3641.4	1.00	6.32	4.2
Approach		857	3.0	2.002	480.7	LOS F	142.2	3641.4	1.00	6.32	4.2
North: Bradshaw Road											
7	L2	20	3.0	1.098	87.6	LOS F	38.0	973.8	1.00	2.30	15.5
4	T1	1378	3.0	1.098	87.6	LOS F	38.0	973.8	1.00	2.30	15.4
14	R2	112	3.0	1.098	87.6	LOS F	38.0	973.8	1.00	2.30	15.2
Approach		1510	3.0	1.098	87.6	LOS F	38.0	973.8	1.00	2.30	15.4
West: Sheldon Road											
5	L2	92	3.0	1.300	178.4	LOS F	46.4	1187.6	1.00	3.56	9.6
2	T1	459	3.0	1.300	178.4	LOS F	46.4	1187.6	1.00	3.56	9.6
12	R2	61	3.0	0.155	11.5	LOS B	0.4	10.3	0.68	0.68	30.9
Approach		612	3.0	1.300	161.7	LOS F	46.4	1187.6	0.97	3.27	10.3
All Vehicles		4265	3.0	2.002	163.5	LOS F	142.2	3641.4	1.00	2.97	10.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

HCM 2010 Signalized Intersection Summary
 15: Bader Rd & Sheldon Rd

Cumulative Conditions
 Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	450	40	70	720	50	60	290	40	120	440	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	72	464	41	72	742	52	62	299	41	124	454	93
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	99	492	43	99	515	36	91	468	64	150	487	100
Arrive On Green	0.06	0.29	0.29	0.06	0.30	0.30	0.05	0.29	0.29	0.09	0.33	0.33
Sat Flow, veh/h	1757	1671	148	1757	1704	119	1757	1588	218	1757	1486	304
Grp Volume(v), veh/h	72	0	505	72	0	794	62	0	340	124	0	547
Grp Sat Flow(s),veh/h/ln	1757	0	1819	1757	0	1824	1757	0	1806	1757	0	1791
Q Serve(g_s), s	2.6	0.0	17.5	2.6	0.0	19.5	2.2	0.0	10.6	4.5	0.0	19.1
Cycle Q Clear(g_c), s	2.6	0.0	17.5	2.6	0.0	19.5	2.2	0.0	10.6	4.5	0.0	19.1
Prop In Lane	1.00		0.08	1.00		0.07	1.00		0.12	1.00		0.17
Lane Grp Cap(c), veh/h	99	0	536	99	0	551	91	0	532	150	0	587
V/C Ratio(X)	0.73	0.00	0.94	0.73	0.00	1.44	0.68	0.00	0.64	0.83	0.00	0.93
Avail Cap(c_a), veh/h	150	0	536	136	0	551	150	0	532	150	0	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.0	0.0	22.2	30.0	0.0	22.5	30.1	0.0	19.8	29.0	0.0	21.0
Incr Delay (d2), s/veh	9.8	0.0	25.4	11.7	0.0	208.5	8.5	0.0	5.8	30.4	0.0	23.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	12.5	1.6	0.0	41.6	1.3	0.0	6.0	3.4	0.0	13.3
LnGrp Delay(d),s/veh	39.8	0.0	47.7	41.7	0.0	231.0	38.6	0.0	25.6	59.4	0.0	44.7
LnGrp LOS	D		D	D		F	D		C	E		D
Approach Vol, veh/h		577			866			402			671	
Approach Delay, s/veh		46.7			215.3			27.6			47.4	
Approach LOS		D			F			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	23.3	8.0	23.4	7.7	25.4	7.5	23.9				
Change Period (Y+Rc), s	4.3	4.3	4.4	4.4	4.3	4.3	3.9	* 4.4				
Max Green Setting (Gmax), s	5.5	19.0	5.0	19.0	5.5	19.0	5.5	* 19				
Max Q Clear Time (g_c+I1), s	6.5	12.6	4.6	19.5	4.2	21.1	4.6	21.5				
Green Ext Time (p_c), s	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0				




















Intersection Summary												
HCM 2010 Ctrl Delay	101.8											
HCM 2010 LOS	F											

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
 16: Grant Line Rd & Sheldon Rd

Cumulative Conditions
 Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	0	940	0	0	0	770	540	0	0	830	300
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	0	1900	0	1863	0	1863	1863	0	0	1881	1900
Adj Flow Rate, veh/h	122	0	750	0	0	0	786	551	0	0	847	0
Adj No. of Lanes	1	0	1	0	1	0	1	2	0	0	2	1
Peak Hour Factor	0.98	0.92	0.98	0.92	0.92	0.92	0.98	0.98	0.92	0.92	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	2	0	2	2	0	0	1	0
Cap, veh/h	150	0	0	0	2	0	849	2915	0	0	1078	487
Arrive On Green	0.08	0.00	0.00	0.00	0.00	0.00	0.48	0.82	0.00	0.00	0.30	0.00
Sat Flow, veh/h	1810	122		0	-83824	0	1774	3632	0	0	3668	1615
Grp Volume(v), veh/h	122	65.1		0	0	0	786	551	0	0	847	0
Grp Sat Flow(s),veh/h/ln	1810	E		0	1863	0	1774	1770	0	0	1787	1615
Q Serve(g_s), s	7.0			0.0	0.0	0.0	44.0	3.4	0.0	0.0	23.0	0.0
Cycle Q Clear(g_c), s	7.0			0.0	0.0	0.0	44.0	3.4	0.0	0.0	23.0	0.0
Prop In Lane	1.00			0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	150			0	2	0	849	2915	0	0	1078	487
V/C Ratio(X)	0.81			0.00	0.00	0.00	0.93	0.19	0.00	0.00	0.79	0.00
Avail Cap(c_a), veh/h	181			0	316	0	1094	3572	0	0	1248	564
HCM Platoon Ratio	1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00			0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	47.8			0.0	0.0	0.0	25.9	2.0	0.0	0.0	33.9	0.0
Incr Delay (d2), s/veh	17.3			0.0	0.0	0.0	11.9	0.0	0.0	0.0	3.0	0.0
Initial Q Delay(d3),s/veh	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2			0.0	0.0	0.0	24.2	1.6	0.0	0.0	11.7	0.0
LnGrp Delay(d),s/veh	65.1			0.0	0.0	0.0	37.7	2.0	0.0	0.0	36.8	0.0
LnGrp LOS	E						D	A			D	
Approach Vol, veh/h					0			1337			847	
Approach Delay, s/veh					0.0			23.0			36.8	
Approach LOS								C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4		6						
Phs Duration (G+Y+Rc), s	55.3	37.3	13.4	0.0		92.6						
Change Period (Y+Rc), s	4.6	5.3	4.6	4.5		5.3						
Max Green Setting (Gmax), s	65.4	37.0	10.6	18.0		107.0						
Max Q Clear Time (g_c+I1), s	46.0	25.0	9.0	0.0		5.4						
Green Ext Time (p_c), s	4.8	7.0	0.0	0.0		14.0						
Intersection Summary												
HCM 2010 Ctrl Delay			30.3									
HCM 2010 LOS			C									

























HCM 2010 Signalized Intersection Summary
 17: Franklin Blvd & Dwight Rd/Big Horn Blvd

Cumulative Conditions
 Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	30	50	330	80	200	90	650	290	590	1320	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	65	33	16	359	87	30	98	707	120	641	1435	105
Adj No. of Lanes	2	2	1	2	1	1	1	3	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	139	426	182	421	377	310	123	1774	539	711	1721	744
Arrive On Green	0.04	0.12	0.12	0.12	0.20	0.20	0.07	0.35	0.35	0.21	0.49	0.49
Sat Flow, veh/h	3408	3505	1497	3408	1845	1518	1757	5036	1531	3408	3505	1515
Grp Volume(v), veh/h	65	33	16	359	87	30	98	707	120	641	1435	105
Grp Sat Flow(s),veh/h/ln	1704	1752	1497	1704	1845	1518	1757	1679	1531	1704	1752	1515
Q Serve(g_s), s	1.9	0.9	1.0	10.7	4.1	1.7	5.7	11.0	5.7	19.1	36.7	3.9
Cycle Q Clear(g_c), s	1.9	0.9	1.0	10.7	4.1	1.7	5.7	11.0	5.7	19.1	36.7	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	139	426	182	421	377	310	123	1774	539	711	1721	744
V/C Ratio(X)	0.47	0.08	0.09	0.85	0.23	0.10	0.80	0.40	0.22	0.90	0.83	0.14
Avail Cap(c_a), veh/h	242	1178	503	458	737	606	133	1774	539	835	1780	770
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.9	40.6	40.6	44.7	34.6	33.6	47.7	25.4	23.7	40.2	22.8	14.5
Incr Delay (d2), s/veh	0.9	0.0	0.1	12.6	0.1	0.0	23.7	0.1	0.1	10.7	3.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.4	0.4	5.8	2.1	0.7	3.6	5.1	2.4	10.0	18.5	1.6
LnGrp Delay(d),s/veh	49.8	40.6	40.7	57.3	34.7	33.7	71.4	25.5	23.8	50.8	26.1	14.5
LnGrp LOS	D	D	D	E	C	C	E	C	C	D	C	B
Approach Vol, veh/h		114			476			925			2181	
Approach Delay, s/veh		45.8			51.7			30.1			32.8	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.3	42.2	17.5	18.2	11.9	56.7	8.8	26.8				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	25.5	35.3	14.0	35.0	7.9	52.9	7.4	41.6				
Max Q Clear Time (g_c+I1), s	21.1	13.0	12.7	3.0	7.7	38.7	3.9	6.1				
Green Ext Time (p_c), s	0.7	19.9	0.1	1.1	0.0	12.4	0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			34.9									
HCM 2010 LOS			C									























HCM 2010 Signalized Intersection Summary
 18: Bruceville Rd & Big Horn Blvd

Cumulative Conditions
 Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	290	610	210	150	960	490	280	1050	260	620	1480	60
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	315	663	37	163	1043	417	304	1141	138	674	1609	61
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	338	1208	527	210	1076	469	338	1254	379	700	1789	544
Arrive On Green	0.10	0.34	0.34	0.06	0.31	0.31	0.10	0.25	0.25	0.07	0.12	0.12
Sat Flow, veh/h	3408	3505	1531	3408	3505	1529	3408	5036	1524	3408	5036	1531
Grp Volume(v), veh/h	315	663	37	163	1043	417	304	1141	138	674	1609	61
Grp Sat Flow(s),veh/h/ln	1704	1752	1531	1704	1752	1529	1704	1679	1524	1704	1679	1531
Q Serve(g_s), s	13.3	22.2	2.4	6.8	42.6	37.7	12.8	31.9	10.8	28.6	45.7	5.2
Cycle Q Clear(g_c), s	13.3	22.2	2.4	6.8	42.6	37.7	12.8	31.9	10.8	28.6	45.7	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	338	1208	527	210	1076	469	338	1254	379	700	1789	544
V/C Ratio(X)	0.93	0.55	0.07	0.78	0.97	0.89	0.90	0.91	0.36	0.96	0.90	0.11
Avail Cap(c_a), veh/h	338	1208	527	289	1076	469	338	1254	379	700	1789	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	64.8	38.4	31.9	67.0	49.6	47.9	64.6	52.9	45.0	67.0	61.5	43.6
Incr Delay (d2), s/veh	31.2	0.3	0.0	5.6	20.3	18.0	24.7	11.3	2.7	4.4	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	10.8	1.0	3.4	23.6	18.3	7.2	16.1	4.8	13.9	21.4	2.2
LnGrp Delay(d),s/veh	96.0	38.7	31.9	72.6	69.9	65.9	89.3	64.2	47.7	71.4	62.2	43.6
LnGrp LOS	F	D	C	E	E	E	F	E	D	E	E	D
Approach Vol, veh/h		1015			1623			1583			2344	
Approach Delay, s/veh		56.2			69.1			67.6			64.4	
Approach LOS		E			E			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.0	57.0	19.0	50.0	34.4	41.6	13.5	55.5				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	14.4	51.5	14.4	44.5	29.8	36.1	12.3	46.6				
Max Q Clear Time (g_c+I1), s	14.8	47.7	15.3	44.6	30.6	33.9	8.8	24.2				
Green Ext Time (p_c), s	0.0	3.8	0.0	0.0	0.0	2.2	0.1	20.4				
Intersection Summary												
HCM 2010 Ctrl Delay			65.1									
HCM 2010 LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
19: Grant Line Rd & Wilton Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	20	30	340	20	180	30	790	360	410	970	20
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	1866	1900	1900	1863	1900	1863	1882	1900
Adj Flow Rate, veh/h	21	21	20	351	21	32	31	814	360	423	1000	21
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	1	0	0	0	2	0	2	1	1
Cap, veh/h	35	34	32	334	137	209	234	1133	515	559	1809	38
Arrive On Green	0.02	0.04	0.04	0.19	0.21	0.21	0.13	0.32	0.32	0.31	0.51	0.51
Sat Flow, veh/h	1810	888	845	1792	668	1018	1810	3539	1610	1774	3581	75
Grp Volume(v), veh/h	21	0	41	351	0	53	31	814	360	423	499	522
Grp Sat Flow(s),veh/h/ln	1810	0	1733	1792	0	1687	1810	1770	1610	1774	1787	1868
Q Serve(g_s), s	1.7	0.0	3.5	28.0	0.0	3.9	2.3	30.5	25.5	32.2	28.8	28.8
Cycle Q Clear(g_c), s	1.7	0.0	3.5	28.0	0.0	3.9	2.3	30.5	25.5	32.2	28.8	28.8
Prop In Lane	1.00		0.49	1.00		0.60	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	35	0	67	334	0	347	234	1133	515	559	903	944
V/C Ratio(X)	0.60	0.00	0.62	1.05	0.00	0.15	0.13	0.72	0.70	0.76	0.55	0.55
Avail Cap(c_a), veh/h	71	0	231	334	0	457	234	1133	515	559	903	944
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.88	0.88	0.88	0.41	0.41	0.41
Uniform Delay (d), s/veh	73.0	0.0	71.0	61.0	0.0	48.9	57.8	45.0	33.7	46.2	25.5	25.5
Incr Delay (d2), s/veh	15.1	0.0	8.9	62.8	0.0	0.2	0.2	3.5	6.8	2.5	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.8	19.7	0.0	1.8	1.2	15.5	12.3	16.1	14.4	15.0
LnGrp Delay(d),s/veh	88.1	0.0	79.9	123.8	0.0	49.1	58.0	48.5	40.5	48.7	26.5	26.4
LnGrp LOS	F		E	F		D	E	D	D	D	C	C
Approach Vol, veh/h		62			404			1205			1444	
Approach Delay, s/veh		82.7			114.0			46.3			33.0	
Approach LOS		F			F			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.9	81.8	32.5	11.8	51.7	54.0	7.4	36.9				
Change Period (Y+Rc), s	4.5	6.0	4.5	* 6	4.5	6.0	4.5	6.0				
Max Green Setting (Gmax), s	6.7	75.8	28.0	* 20	34.5	48.0	5.9	40.6				
Max Q Clear Time (g_c+I1), s	4.3	30.8	30.0	5.5	34.2	32.5	3.7	5.9				
Green Ext Time (p_c), s	0.4	7.9	0.0	0.3	0.1	6.2	0.0	0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			49.6									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												
























HCM 2010 Signalized Intersection Summary
 20: Harbour Point Dr & Laguna Blvd

Cumulative Conditions
 Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	1700	700	340	620	130	180	40	340	210	90	200
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.95	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	120	1848	676	370	674	95	196	43	60	228	98	50
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	1	1	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	176	2187	666	426	2557	780	256	420	179	256	351	289
Arrive On Green	0.05	0.43	0.43	0.13	0.51	0.51	0.08	0.12	0.12	0.15	0.19	0.19
Sat Flow, veh/h	3408	5036	1535	3408	5036	1537	3408	3505	1497	1757	1845	1516
Grp Volume(v), veh/h	120	1848	676	370	674	95	196	43	60	228	98	50
Grp Sat Flow(s),veh/h/ln	1704	1679	1535	1704	1679	1537	1704	1752	1497	1757	1845	1516
Q Serve(g_s), s	3.8	36.2	47.9	11.8	8.4	3.6	6.2	1.2	4.1	14.1	5.0	3.0
Cycle Q Clear(g_c), s	3.8	36.2	47.9	11.8	8.4	3.6	6.2	1.2	4.1	14.1	5.0	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	2187	666	426	2557	780	256	420	179	256	351	289
V/C Ratio(X)	0.68	0.84	1.01	0.87	0.26	0.12	0.76	0.10	0.33	0.89	0.28	0.17
Avail Cap(c_a), veh/h	278	2187	666	445	2557	780	399	985	421	277	594	488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	27.9	31.2	47.4	15.4	14.2	50.0	43.2	44.5	46.2	38.2	37.4
Incr Delay (d2), s/veh	1.7	3.2	38.5	15.2	0.1	0.1	1.8	0.1	0.8	25.4	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	17.3	27.4	6.5	3.9	1.5	3.0	0.6	1.7	8.6	2.6	1.3
LnGrp Delay(d),s/veh	53.1	31.1	69.7	62.6	15.5	14.3	51.8	43.3	45.3	71.7	38.3	37.5
LnGrp LOS	D	C	F	E	B	B	D	D	D	E	D	D
Approach Vol, veh/h		2644			1139			299			376	
Approach Delay, s/veh		42.0			30.7			49.3			58.4	
Approach LOS		D			C			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	61.5	12.9	25.6	18.4	53.4	20.7	17.8				
Change Period (Y+Rc), s	4.6	5.5	4.6	4.6	4.6	5.5	4.6	4.6				
Max Green Setting (Gmax), s	9.0	53.3	12.9	35.5	14.4	47.9	17.4	31.0				
Max Q Clear Time (g_c+I1), s	5.8	10.4	8.2	7.0	13.8	49.9	16.1	6.1				
Green Ext Time (p_c), s	0.0	33.5	0.1	0.7	0.0	0.0	0.0	0.6				
Intersection Summary												
HCM 2010 Ctrl Delay			41.0									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
 21: Babson Dr/Dwight Rd & Laguna Blvd

Cumulative Conditions
 Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	2010	100	270	1040	140	50	20	230	180	50	90
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.95	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	65	2185	69	293	1130	117	54	22	12	196	54	0
Adj No. of Lanes	2	3	1	2	3	1	1	1	0	1	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	127	2526	771	346	2849	870	69	118	64	222	681	304
Arrive On Green	0.04	0.50	0.50	0.10	0.57	0.57	0.04	0.11	0.11	0.13	0.19	0.00
Sat Flow, veh/h	3408	5036	1537	3408	5036	1538	1757	1101	601	1757	3505	1568
Grp Volume(v), veh/h	65	2185	69	293	1130	117	54	0	34	196	54	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1537	1704	1679	1538	1757	0	1702	1757	1752	1568
Q Serve(g_s), s	2.2	45.2	2.8	10.0	14.8	4.2	3.6	0.0	2.2	13.0	1.5	0.0
Cycle Q Clear(g_c), s	2.2	45.2	2.8	10.0	14.8	4.2	3.6	0.0	2.2	13.0	1.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	127	2526	771	346	2849	870	69	0	182	222	681	304
V/C Ratio(X)	0.51	0.87	0.09	0.85	0.40	0.13	0.78	0.00	0.19	0.88	0.08	0.00
Avail Cap(c_a), veh/h	190	2569	784	360	2849	870	147	0	461	236	1127	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.8	25.9	15.4	52.2	14.4	12.1	56.3	0.0	48.1	50.7	39.0	0.0
Incr Delay (d2), s/veh	1.2	3.3	0.0	15.3	0.1	0.1	6.9	0.0	0.2	27.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	21.6	1.2	5.5	6.8	1.8	1.9	0.0	1.0	8.0	0.7	0.0
LnGrp Delay(d),s/veh	57.0	29.3	15.4	67.5	14.5	12.1	63.2	0.0	48.3	78.1	39.0	0.0
LnGrp LOS	E	C	B	E	B	B	E		D	E	D	
Approach Vol, veh/h		2319			1540			88			250	
Approach Delay, s/veh		29.6			24.4			57.4			69.6	
Approach LOS		C			C			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	72.7	9.2	27.5	16.5	65.1	19.5	17.1				
Change Period (Y+Rc), s	4.5	5.8	4.5	4.5	4.5	5.8	4.5	4.5				
Max Green Setting (Gmax), s	6.6	66.2	9.9	38.0	12.5	60.3	15.9	32.0				
Max Q Clear Time (g_c+I1), s	4.2	16.8	5.6	3.5	12.0	47.2	15.0	4.2				
Green Ext Time (p_c), s	0.0	41.7	0.0	0.2	0.0	12.1	0.0	0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			30.7									
HCM 2010 LOS			C									

























HCM 2010 Signalized Intersection Summary
 22: Franklin Blvd & Laguna Blvd

Cumulative Conditions
 Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	610	1440	260	300	850	140	430	400	200	370	640	350
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	663	1565	200	326	924	87	467	435	44	402	696	156
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	602	1709	519	354	1342	407	430	903	393	393	878	382
Arrive On Green	0.18	0.34	0.34	0.10	0.27	0.27	0.13	0.26	0.26	0.12	0.25	0.25
Sat Flow, veh/h	3408	5036	1531	3408	5036	1525	3408	3505	1525	3408	3505	1524
Grp Volume(v), veh/h	663	1565	200	326	924	87	467	435	44	402	696	156
Grp Sat Flow(s),veh/h/ln	1704	1679	1531	1704	1679	1525	1704	1752	1525	1704	1752	1524
Q Serve(g_s), s	24.5	41.3	13.8	13.1	22.9	6.2	17.5	14.6	3.1	16.0	25.8	11.9
Cycle Q Clear(g_c), s	24.5	41.3	13.8	13.1	22.9	6.2	17.5	14.6	3.1	16.0	25.8	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	602	1709	519	354	1342	407	430	903	393	393	878	382
V/C Ratio(X)	1.10	0.92	0.39	0.92	0.69	0.21	1.09	0.48	0.11	1.02	0.79	0.41
Avail Cap(c_a), veh/h	602	1710	520	354	1343	407	430	940	409	393	910	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.1	43.9	34.8	61.6	45.7	39.6	60.6	43.6	39.4	61.4	48.6	43.4
Incr Delay (d2), s/veh	67.6	8.0	0.2	28.3	1.3	0.1	68.6	0.1	0.0	51.3	4.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.1	20.4	5.8	7.6	10.8	2.6	12.3	7.1	1.3	10.3	13.0	5.0
LnGrp Delay(d),s/veh	124.7	51.9	35.0	89.9	46.9	39.7	129.2	43.8	39.4	112.6	52.9	43.7
LnGrp LOS	F	D	C	F	D	D	F	D	D	F	D	D
Approach Vol, veh/h		2428			1337			946			1254	
Approach Delay, s/veh		70.4			57.0			85.7			70.9	
Approach LOS		E			E			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.0	40.7	20.9	53.1	23.0	41.7	31.0	43.0				
Change Period (Y+Rc), s	6.5	6.0	6.5	6.0	7.0	* 6	6.5	6.0				
Max Green Setting (Gmax), s	17.5	36.0	14.4	47.1	16.0	* 37	24.5	37.0				
Max Q Clear Time (g_c+I1), s	19.5	27.8	15.1	43.3	18.0	16.6	26.5	24.9				
Green Ext Time (p_c), s	0.0	6.4	0.0	3.7	0.0	13.3	0.0	11.9				
Intersection Summary												
HCM 2010 Ctrl Delay			69.9									
HCM 2010 LOS			E									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
 23: Bruceville Rd & Laguna Blvd

Cumulative Conditions
 Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	300	830	270	330	1170	170	200	1400	190	160	1460	530
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	326	902	167	359	1272	134	217	1522	131	174	1587	455
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	293	1332	403	316	1366	414	211	1530	670	176	1482	649
Arrive On Green	0.09	0.26	0.26	0.09	0.27	0.27	0.06	0.44	0.44	0.05	0.42	0.42
Sat Flow, veh/h	3408	5036	1525	3408	5036	1526	3408	3505	1535	3408	3505	1534
Grp Volume(v), veh/h	326	902	167	359	1272	134	217	1522	131	174	1587	455
Grp Sat Flow(s),veh/h/ln	1704	1679	1525	1704	1679	1526	1704	1752	1535	1704	1752	1534
Q Serve(g_s), s	12.5	23.3	13.2	13.5	35.8	10.2	9.0	62.9	7.7	7.4	61.5	35.4
Cycle Q Clear(g_c), s	12.5	23.3	13.2	13.5	35.8	10.2	9.0	62.9	7.7	7.4	61.5	35.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	293	1332	403	316	1366	414	211	1530	670	176	1482	649
V/C Ratio(X)	1.11	0.68	0.41	1.14	0.93	0.32	1.03	0.99	0.20	0.99	1.07	0.70
Avail Cap(c_a), veh/h	293	1333	404	316	1367	414	211	1530	670	176	1482	649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	47.9	44.2	66.0	51.7	42.3	68.2	40.8	25.2	68.9	42.0	34.5
Incr Delay (d2), s/veh	86.5	1.1	0.3	92.3	11.3	0.2	69.8	21.7	0.1	64.8	45.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	11.0	5.6	10.4	18.0	4.3	6.3	35.1	3.2	5.1	38.9	15.4
LnGrp Delay(d),s/veh	153.0	49.1	44.4	158.2	63.0	42.5	138.1	62.5	25.3	133.7	87.0	37.3
LnGrp LOS	F	D	D	F	E	D	F	E	C	F	F	D
Approach Vol, veh/h		1395			1765			1870			2216	
Approach Delay, s/veh		72.8			80.8			68.7			80.4	
Approach LOS		E			F			E			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	45.0	15.0	67.5	19.0	44.0	13.0	69.5				
Change Period (Y+Rc), s	5.5	5.5	6.0	* 6	5.5	5.5	5.5	6.0				
Max Green Setting (Gmax), s	12.5	39.5	9.0	* 62	13.5	38.5	7.5	63.0				
Max Q Clear Time (g_c+I1), s	14.5	37.8	11.0	63.5	15.5	25.3	9.4	64.9				
Green Ext Time (p_c), s	0.0	1.6	0.0	0.0	0.0	12.5	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			76.0									
HCM 2010 LOS			E									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
 24: Big Horn Blvd & Laguna Blvd

Cumulative Conditions
 Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	210	890	120	360	1410	480	120	1350	280	450	1260	160
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	228	967	119	391	1533	409	130	1467	234	489	1370	120
Adj No. of Lanes	2	4	0	2	3	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	259	1335	162	434	1427	433	173	1320	577	441	1595	699
Arrive On Green	0.08	0.23	0.23	0.13	0.28	0.28	0.05	0.38	0.38	0.13	0.46	0.46
Sat Flow, veh/h	3408	5756	699	3408	5036	1527	3408	3505	1532	3408	3505	1535
Grp Volume(v), veh/h	228	797	289	391	1533	409	130	1467	234	489	1370	120
Grp Sat Flow(s),veh/h/ln	1704	1586	1696	1704	1679	1527	1704	1752	1532	1704	1752	1535
Q Serve(g_s), s	9.9	23.2	23.6	17.0	42.5	39.3	5.6	56.5	16.9	19.4	52.4	6.9
Cycle Q Clear(g_c), s	9.9	23.2	23.6	17.0	42.5	39.3	5.6	56.5	16.9	19.4	52.4	6.9
Prop In Lane	1.00		0.41	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	259	1104	394	434	1427	433	173	1320	577	441	1595	699
V/C Ratio(X)	0.88	0.72	0.73	0.90	1.07	0.95	0.75	1.11	0.41	1.11	0.86	0.17
Avail Cap(c_a), veh/h	259	1104	394	464	1427	433	191	1320	577	441	1595	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.6	53.1	53.3	64.5	53.8	52.6	70.2	46.8	34.4	65.3	36.6	24.2
Incr Delay (d2), s/veh	26.6	2.0	6.1	18.9	46.6	29.5	11.7	61.2	0.2	76.0	4.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	10.4	11.7	9.1	25.8	20.1	3.0	38.5	7.1	13.8	26.4	2.9
LnGrp Delay(d),s/veh	95.3	55.2	59.4	83.4	100.3	82.1	81.9	107.9	34.6	141.3	41.3	24.2
LnGrp LOS	F	E	E	F	F	F	F	F	C	F	D	C
Approach Vol, veh/h		1314			2333			1831			1979	
Approach Delay, s/veh		63.1			94.3			96.7			65.0	
Approach LOS		E			F			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	48.0	12.2	73.8	23.7	40.3	24.0	62.0				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	11.4	42.5	8.4	67.5	20.4	33.5	19.4	56.5				
Max Q Clear Time (g_c+I1), s	11.9	44.5	7.6	54.4	19.0	25.6	21.4	58.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	12.8	0.1	7.7	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			81.6									
HCM 2010 LOS			F									
Notes												
User approved pedestrian interval to be less than phase max green.												

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
PM Peak Hour

Intersection 25 W Stockton Blvd-Laguna Springs Dr/Laguna Blvd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	350	350	100.0%	56.9	9.0	E
	Through	110	114	103.7%	35.3	7.2	D
	Right Turn	700	684	97.8%	17.1	3.2	B
	Subtotal	1,160	1,149	99.0%	31.2	3.8	C
SB	Left Turn	130	123	94.3%	46.0	11.0	D
	Through	270	277	102.8%	40.0	3.3	D
	Right Turn	300	303	101.0%	38.7	9.0	D
	Subtotal	700	703	100.4%	40.7	4.5	D
EB	Left Turn	210	202	96.2%	89.0	31.9	F
	Through	1,140	1,119	98.2%	37.1	5.5	D
	Right Turn	120	108	90.2%	6.2	1.7	A
	Subtotal	1,470	1,429	97.2%	42.4	6.4	D
WB	Left Turn	350	325	92.8%	32.6	3.0	C
	Through	1,590	1,514	95.2%	20.3	3.3	C
	Right Turn	140	142	101.7%	3.8	0.7	A
	Subtotal	2,080	1,981	95.2%	21.2	2.7	C
Total		5,410	5,262	97.3%	31.8	2.4	C

Intersection 26 SR 99 SB Ramps/Laguna Blvd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	460	457	99.4%	23.9	1.9	C
	Through						
	Right Turn	660	668	101.2%	23.9	4.7	C
	Subtotal	1,120	1,125	100.5%	23.8	3.3	C
EB	Left Turn						
	Through	1,560	1,491	95.6%	31.9	5.9	C
	Right Turn	410	411	100.3%	9.7	1.5	A
	Subtotal	1,970	1,902	96.6%	27.1	5.0	C
WB	Left Turn						
	Through	1,420	1,345	94.7%	18.2	1.2	B
	Right Turn	500	461	92.2%	10.0	0.6	A
	Subtotal	1,920	1,806	94.1%	16.1	1.0	B
Total		5,010	4,834	96.5%	22.3	2.8	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
PM Peak Hour

Intersection 27 SR 99 NB Ramps/Bond Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	430	428	99.4%	32.6	7.3	C
	Through						
	Right Turn	420	399	95.1%	49.1	16.2	D
	Subtotal	850	827	97.3%	40.6	11.5	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,110	1,022	92.0%	29.9	14.8	C
	Right Turn	910	858	94.3%	15.3	1.6	B
	Subtotal	2,020	1,879	93.0%	23.2	7.9	C
WB	Left Turn						
	Through	1,490	1,437	96.4%	26.2	2.2	C
	Right Turn	390	375	96.1%	12.2	1.5	B
	Subtotal	1,880	1,812	96.4%	23.4	2.0	C
Total		4,750	4,518	95.1%	26.5	5.3	C

Intersection 28 E Stockton Blvd/Bond Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	280	301	107.5%	43.3	4.8	D
	Through	90	91	101.4%	46.9	4.4	D
	Right Turn	140	131	93.6%	12.3	3.7	B
	Subtotal	510	523	102.6%	36.2	3.6	D
SB	Left Turn	390	368	94.3%	98.3	24.3	F
	Through	180	180	100.0%	104.3	25.3	F
	Right Turn	110	104	94.3%	22.2	10.1	C
	Subtotal	680	651	95.8%	88.0	22.6	F
EB	Left Turn	150	123	82.2%	78.2	15.1	E
	Through	1,180	955	81.0%	105.2	34.8	F
	Right Turn	200	185	92.7%	10.6	2.9	B
	Subtotal	1,530	1,264	82.6%	88.6	28.0	F
WB	Left Turn	100	96	96.4%	79.0	43.8	E
	Through	1,490	1,345	90.3%	30.5	8.1	C
	Right Turn	210	198	94.3%	13.3	3.2	B
	Subtotal	1,800	1,639	91.1%	31.6	9.1	C
Total		4,520	4,078	90.2%	58.6	10.3	E

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
PM Peak Hour

Intersection 29

























Elk Crest Rd/Bond Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	60	63	104.3%	56.9	13.4	E
	Through	20	22	110.4%	42.1	17.8	D
	Right Turn	10	14	136.2%	24.3	13.5	C
	Subtotal	90	98	109.2%	50.6	8.7	D
SB	Left Turn	120	128	106.4%	44.1	6.8	D
	Through	30	30	99.4%	67.9	23.6	E
	Right Turn	250	268	107.2%	42.4	16.0	D
	Subtotal	400	425	106.4%	44.9	13.1	D
EB	Left Turn	270	246	91.2%	58.7	14.7	E
	Through	1,320	1,097	83.1%	22.2	3.1	C
	Right Turn	130	112	86.1%	16.3	2.8	B
	Subtotal	1,720	1,455	84.6%	28.0	5.0	C
WB	Left Turn	90	89	99.0%	84.6	18.4	F
	Through	1,480	1,299	87.8%	83.3	17.4	F
	Right Turn	120	103	86.2%	73.0	20.3	E
	Subtotal	1,690	1,492	88.3%	82.6	17.5	F
Total		3,900	3,471	89.0%	54.1	7.5	D

HCM 2010 Signalized Intersection Summary
30: Elk Grove Florin Rd & Bond Rd

























Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	440	1190	160	360	920	160	370	940	320	320	1080	450
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	463	1253	105	379	968	62	389	989	242	337	1137	275
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	469	1139	507	364	1019	454	385	1098	491	361	1074	474
Arrive On Green	0.14	0.33	0.33	0.11	0.29	0.29	0.11	0.31	0.31	0.11	0.31	0.31
Sat Flow, veh/h	3408	3505	1559	3408	3505	1561	3408	3505	1568	3408	3505	1547
Grp Volume(v), veh/h	463	1253	105	379	968	62	389	989	242	337	1137	275
Grp Sat Flow(s),veh/h/ln	1704	1752	1559	1704	1752	1561	1704	1752	1568	1704	1752	1547
Q Serve(g_s), s	19.7	47.2	7.1	15.5	39.3	4.3	16.4	39.2	18.2	14.2	44.5	21.8
Cycle Q Clear(g_c), s	19.7	47.2	7.1	15.5	39.3	4.3	16.4	39.2	18.2	14.2	44.5	21.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	469	1139	507	364	1019	454	385	1098	491	361	1074	474
V/C Ratio(X)	0.99	1.10	0.21	1.04	0.95	0.14	1.01	0.90	0.49	0.93	1.06	0.58
Avail Cap(c_a), veh/h	469	1139	507	364	1026	457	385	1098	491	361	1074	474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.5	49.0	35.5	64.9	50.5	38.0	64.4	47.7	40.5	64.4	50.4	42.5
Incr Delay (d2), s/veh	37.8	58.3	0.3	58.4	17.6	0.2	48.5	10.5	1.3	30.2	44.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	32.0	3.1	10.2	21.4	1.9	10.3	20.6	8.1	8.3	28.1	9.6
LnGrp Delay(d),s/veh	100.2	107.3	35.8	123.3	68.0	38.3	113.0	58.2	41.8	94.5	94.7	44.9
LnGrp LOS	F	F	D	F	E	D	F	E	D	F	F	D
Approach Vol, veh/h		1821			1409			1620			1749	
Approach Delay, s/veh		101.4			81.6			68.9			86.8	
Approach LOS		F			F			E			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.0	50.0	26.0	48.2	20.0	51.0	21.0	53.2				
Change Period (Y+Rc), s	4.6	5.5	6.0	* 6	4.6	5.5	5.5	6.0				
Max Green Setting (Gmax), s	16.4	44.5	20.0	* 43	15.4	45.5	15.5	47.0				
Max Q Clear Time (g_c+I1), s	18.4	46.5	21.7	41.3	16.2	41.2	17.5	49.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	4.2	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			85.3									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
































31: Waterman Rd & Bond Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	1120	280	60	990	110	250	450	70	170	550	140
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1881	1881	1863	1881	1863	1900
Adj Flow Rate, veh/h	76	1217	144	65	1076	66	272	489	26	185	598	31
Adj No. of Lanes	2	2	1	2	2	1	1	1	1	1	1	1
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
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	2	1	2	0
Cap, veh/h	121	1398	626	118	1394	623	254	599	504	202	539	467
Arrive On Green	0.03	0.39	0.39	0.03	0.39	0.39	0.14	0.32	0.32	0.11	0.29	0.29
Sat Flow, veh/h	3510	3610	1615	3510	3610	1612	1792	1881	1583	1792	1863	1613
Grp Volume(v), veh/h	76	1217	144	65	1076	66	272	489	26	185	598	31
Grp Sat Flow(s),veh/h/ln	1755	1805	1615	1755	1805	1612	1792	1881	1583	1792	1863	1613
Q Serve(g_s), s	2.9	42.6	8.2	2.5	35.6	3.6	19.4	32.7	1.6	14.0	39.5	1.9
Cycle Q Clear(g_c), s	2.9	42.6	8.2	2.5	35.6	3.6	19.4	32.7	1.6	14.0	39.5	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	121	1398	626	118	1394	623	254	599	504	202	539	467
V/C Ratio(X)	0.63	0.87	0.23	0.55	0.77	0.11	1.07	0.82	0.05	0.92	1.11	0.07
Avail Cap(c_a), veh/h	190	1414	633	190	1414	632	254	599	504	202	539	467
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.1	38.7	28.1	65.0	36.6	26.8	58.6	42.9	32.2	59.9	48.5	35.2
Incr Delay (d2), s/veh	2.0	6.3	0.3	1.5	2.8	0.1	75.8	8.0	0.0	39.9	72.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	22.4	3.7	1.2	18.3	1.6	14.9	18.3	0.7	9.2	31.1	0.8
LnGrp Delay(d),s/veh	67.0	45.0	28.4	66.5	39.5	26.9	134.4	50.9	32.3	99.8	121.0	35.2
LnGrp LOS	E	D	C	E	D	C	F	D	C	F	F	D
Approach Vol, veh/h		1437			1207			787			814	
Approach Delay, s/veh		44.5			40.3			79.1			113.0	
Approach LOS		D			D			E			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	58.3	24.0	45.0	9.2	58.4	20.0	49.0				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	7.4	53.5	19.4	39.5	7.4	53.5	15.4	43.5				
Max Q Clear Time (g_c+I1), s	4.9	37.6	21.4	41.5	4.5	44.6	16.0	34.7				
Green Ext Time (p_c), s	0.0	14.3	0.0	0.0	0.0	8.3	0.0	2.8				
Intersection Summary												
HCM 2010 Ctrl Delay			62.8									
HCM 2010 LOS			E									

HCM 2010 Signalized Intersection Summary
32: Bradshaw Rd & Bond Rd












Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 	 		 	 	
Volume (veh/h)	360	360	200	130	510	40	170	890	110	40	1090	440
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	387	387	147	140	548	39	183	957	107	43	1172	314
Adj No. of Lanes	2	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	448	976	436	167	850	380	241	1486	665	109	1350	603
Arrive On Green	0.13	0.28	0.28	0.10	0.24	0.24	0.07	0.42	0.42	0.03	0.39	0.39
Sat Flow, veh/h	3408	3505	1566	1757	3505	1568	3408	3505	1568	3408	3505	1567
Grp Volume(v), veh/h	387	387	147	140	548	39	183	957	107	43	1172	314
Grp Sat Flow(s),veh/h/ln	1704	1752	1566	1757	1752	1568	1704	1752	1568	1704	1752	1567
Q Serve(g_s), s	13.2	10.6	8.9	9.3	16.6	2.3	6.2	25.6	5.0	1.5	36.6	18.3
Cycle Q Clear(g_c), s	13.2	10.6	8.9	9.3	16.6	2.3	6.2	25.6	5.0	1.5	36.6	18.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	448	976	436	167	850	380	241	1486	665	109	1350	603
V/C Ratio(X)	0.86	0.40	0.34	0.84	0.65	0.10	0.76	0.64	0.16	0.39	0.87	0.52
Avail Cap(c_a), veh/h	587	1227	548	362	1346	602	414	1582	708	299	1464	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	34.7	34.1	52.7	40.3	34.9	54.1	27.1	21.1	56.2	33.7	28.0
Incr Delay (d2), s/veh	8.4	0.4	0.6	4.2	1.2	0.2	1.9	0.6	0.0	0.9	5.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	5.2	3.9	4.7	8.2	1.0	3.0	12.5	2.2	0.7	18.7	8.0
LnGrp Delay(d),s/veh	58.9	35.1	34.7	56.9	41.5	35.0	55.9	27.7	21.2	57.1	38.8	28.3
LnGrp LOS	E	D	C	E	D	D	E	C	C	E	D	C
Approach Vol, veh/h		921			727			1247			1529	
Approach Delay, s/veh		45.0			44.1			31.2			37.1	
Approach LOS		D			D			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.2	34.2	8.4	55.7	15.9	38.5	13.0	51.1				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	20.4	45.5	10.4	53.5	24.4	41.5	14.4	49.5				
Max Q Clear Time (g_c+I1), s	15.2	18.6	3.5	27.6	11.3	12.6	8.2	38.6				
Green Ext Time (p_c), s	0.4	10.0	0.0	11.6	0.1	10.3	0.1	7.0				
Intersection Summary												
HCM 2010 Ctrl Delay			38.3									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary























33: Bond Rd & Bader Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Volume (veh/h)	220	260	360	30	40	350		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1900		
Adj Flow Rate, veh/h	242	286	396	33	44	385		
Adj No. of Lanes	1	1	1	0	0	0		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91		
Percent Heavy Veh, %	3	3	3	3	0	0		
Cap, veh/h	286	1088	632	53	48	420		
Arrive On Green	0.16	0.59	0.38	0.38	0.30	0.30		
Sat Flow, veh/h	1757	1845	1680	140	162	1420		
Grp Volume(v), veh/h	242	286	0	429	430	0		
Grp Sat Flow(s),veh/h/ln	1757	1845	0	1820	1586	0		
Q Serve(g_s), s	11.3	6.3	0.0	16.2	22.1	0.0		
Cycle Q Clear(g_c), s	11.3	6.3	0.0	16.2	22.1	0.0		
Prop In Lane	1.00			0.08	0.10	0.90		
Lane Grp Cap(c), veh/h	286	1088	0	685	469	0		
V/C Ratio(X)	0.85	0.26	0.00	0.63	0.92	0.00		
Avail Cap(c_a), veh/h	494	1088	0	685	578	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	34.2	8.4	0.0	21.4	28.6	0.0		
Incr Delay (d2), s/veh	6.9	0.6	0.0	4.3	17.2	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.0	3.4	0.0	8.9	11.9	0.0		
LnGrp Delay(d),s/veh	41.1	9.0	0.0	25.7	45.9	0.0		
LnGrp LOS	D	A		C	D			
Approach Vol, veh/h		528	429		430			
Approach Delay, s/veh		23.7	25.7		45.9			
Approach LOS		C	C		D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		54.0		30.2	18.0	36.0		
Change Period (Y+Rc), s		4.3		5.3	4.3	4.3		
Max Green Setting (Gmax), s		49.7		30.7	23.7	21.7		
Max Q Clear Time (g_c+I1), s		8.3		24.1	13.3	18.2		
Green Ext Time (p_c), s		4.4		0.9	0.5	1.3		
Intersection Summary								
HCM 2010 Ctrl Delay			31.2					
HCM 2010 LOS			C					
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary
 34: Grant Line Rd & Bond Rd/Wrangler Dr

Cumulative Conditions
 Timing Plan: PM Peak Hour







												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	230	30	40	20	20	10	30	880	10	20	900	290
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1667	1900	1798	1900	1900	1863	1138	1900	1881	1900
Adj Flow Rate, veh/h	262	0	0	21	21	6	31	917	10	21	938	0
Adj No. of Lanes	2	0	1	0	1	0	1	2	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	14	14	14	14	0	2	67	0	1	0
Cap, veh/h	344	0	134	31	31	9	56	1929	526	42	1018	874
Arrive On Green	0.09	0.00	0.00	0.04	0.04	0.04	0.03	0.54	0.54	0.02	0.54	0.00
Sat Flow, veh/h	3619	0	1417	754	754	215	1810	3539	966	1810	1881	1615
Grp Volume(v), veh/h	262	0	0	48	0	0	31	917	10	21	938	0
Grp Sat Flow(s),veh/h/ln	1810	0	1417	1723	0	0	1810	1770	966	1810	1881	1615
Q Serve(g_s), s	5.8	0.0	0.0	2.3	0.0	0.0	1.4	13.0	0.4	0.9	37.4	0.0
Cycle Q Clear(g_c), s	5.8	0.0	0.0	2.3	0.0	0.0	1.4	13.0	0.4	0.9	37.4	0.0
Prop In Lane	1.00		1.00	0.44		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	344	0	134	70	0	0	56	1929	526	42	1018	874
V/C Ratio(X)	0.76	0.00	0.00	0.69	0.00	0.00	0.55	0.48	0.02	0.50	0.92	0.00
Avail Cap(c_a), veh/h	353	0	138	315	0	0	132	2029	554	126	1078	926
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.2	0.0	0.0	38.8	0.0	0.0	39.2	11.5	8.6	39.6	17.2	0.0
Incr Delay (d2), s/veh	8.2	0.0	0.0	4.4	0.0	0.0	3.2	0.1	0.0	3.4	11.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	0.0	1.2	0.0	0.0	0.7	6.4	0.1	0.5	22.6	0.0
LnGrp Delay(d),s/veh	44.4	0.0	0.0	43.2	0.0	0.0	42.3	11.5	8.6	43.0	29.1	0.0
LnGrp LOS	D			D			D	B	A	D	C	
Approach Vol, veh/h		262			48			958			959	
Approach Delay, s/veh		44.4			43.2			12.5			29.4	
Approach LOS		D			D			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	50.3		13.8	8.2	50.7		9.3				
Change Period (Y+Rc), s	6.0	6.0		6.0	* 6.3	6.0		6.0				
Max Green Setting (Gmax), s	6.0	47.0		8.0	* 5.7	47.0		15.0				
Max Q Clear Time (g_c+I1), s	3.4	39.4		7.8	2.9	15.0		4.3				
Green Ext Time (p_c), s	0.0	4.9		0.0	0.0	11.0		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			24.2									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary























35: Elk Grove Blvd & I-5 SB Ramps

Cumulative Conditions
Timing Plan: PM Peak Hour

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		↔↔↔	↕	↗	↖↗	↗		
Volume (veh/h)	10	30	30	410	1560	20		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1676	1900	1881	1900	1900		
Adj Flow Rate, veh/h	11	32	32	0	1642	21		
Adj No. of Lanes	0	3	2	1	2	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	18	18	0	1	0	0		
Cap, veh/h	336	1086	183	81	1790	824		
Arrive On Green	0.30	0.30	0.05	0.00	0.51	0.51		
Sat Flow, veh/h	1102	3718	3705	1599	3510	1615		
Grp Volume(v), veh/h	16	27	32	0	1642	21		
Grp Sat Flow(s),veh/h/ln	1620	1525	1805	1599	1755	1615		
Q Serve(g_s), s	0.7	0.6	0.8	0.0	43.1	0.6		
Cycle Q Clear(g_c), s	0.7	0.6	0.8	0.0	43.1	0.6		
Prop In Lane	0.68			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	493	928	183	81	1790	824		
V/C Ratio(X)	0.03	0.03	0.18	0.00	0.92	0.03		
Avail Cap(c_a), veh/h	493	928	783	347	2004	922		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.91	0.00	1.00	1.00		
Uniform Delay (d), s/veh	24.4	24.4	45.5	0.0	22.6	12.2		
Incr Delay (d2), s/veh	0.1	0.1	0.4	0.0	6.8	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.3	0.3	0.4	0.0	22.4	0.3		
LnGrp Delay(d),s/veh	24.6	24.5	45.9	0.0	29.3	12.2		
LnGrp LOS	C	C	D		C	B		
Approach Vol, veh/h		43	32		1663			
Approach Delay, s/veh		24.5	45.9		29.1			
Approach LOS		C	D		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		34.7		55.9		9.4		
Change Period (Y+Rc), s		4.3		4.9		4.3		
Max Green Setting (Gmax), s		7.7		57.1		21.7		
Max Q Clear Time (g_c+I1), s		2.7		45.1		2.8		
Green Ext Time (p_c), s		0.0		5.9		0.1		
Intersection Summary								
HCM 2010 Ctrl Delay			29.3					
HCM 2010 LOS			C					

HCM 2010 Signalized Intersection Summary
36: Elk Grove Blvd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 				 			
Volume (veh/h)	20	1570	0	0	420	1100	20	0	230	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1473	1900	0	0	1892	1900	1900	1900	1900			
Adj Flow Rate, veh/h	21	1619	0	0	433	0	0	0	259			
Adj No. of Lanes	1	3	0	0	2	1	0	1	2			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	29	0	0	0	1	0	0	0	0			
Cap, veh/h	70	3975	0	0	2548	1087	0	262	426			
Arrive On Green	0.02	0.25	0.00	0.00	0.67	0.00	0.00	0.00	0.14			
Sat Flow, veh/h	1403	5358	0	0	3784	1615	0	1900	3097			
Grp Volume(v), veh/h	21	1619	0	0	433	0	0	0	259			
Grp Sat Flow(s),veh/h/ln	1403	1729	0	0	1892	1615	0	1900	1549			
Q Serve(g_s), s	1.5	26.0	0.0	0.0	4.2	0.0	0.0	0.0	7.9			
Cycle Q Clear(g_c), s	1.5	26.0	0.0	0.0	4.2	0.0	0.0	0.0	7.9			
Prop In Lane	1.00		0.00	0.00		1.00	0.00		1.00			
Lane Grp Cap(c), veh/h	70	3975	0	0	2548	1087	0	262	426			
V/C Ratio(X)	0.30	0.41	0.00	0.00	0.17	0.00	0.00	0.00	0.61			
Avail Cap(c_a), veh/h	108	3975	0	0	2548	1087	0	640	1044			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.44	0.44	0.00	0.00	0.78	0.00	0.00	0.00	1.00			
Uniform Delay (d), s/veh	47.4	18.4	0.0	0.0	6.0	0.0	0.0	0.0	40.6			
Incr Delay (d2), s/veh	1.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	1.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	12.5	0.0	0.0	2.2	0.0	0.0	0.0	3.5			
LnGrp Delay(d),s/veh	48.5	18.6	0.0	0.0	6.1	0.0	0.0	0.0	42.0			
LnGrp LOS	D	B			A				D			
Approach Vol, veh/h		1640			433			259				
Approach Delay, s/veh		19.0			6.1			42.0				
Approach LOS		B			A			D				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		80.9			9.3	71.6		19.1				
Change Period (Y+Rc), s		4.3			4.3	4.3		5.3				
Max Green Setting (Gmax), s		56.7			7.7	44.7		33.7				
Max Q Clear Time (g_c+I1), s		28.0			3.5	6.2		9.9				
Green Ext Time (p_c), s		17.1			0.0	20.1		1.0				
Intersection Summary												
HCM 2010 Ctrl Delay					19.1							
HCM 2010 LOS					B							
Notes												
User approved volume balancing among the lanes for turning movement.												













HCM 2010 Signalized Intersection Summary
 37: W Taron Dr/Harbour Point Dr & Elk Grove Blvd

Cumulative Conditions
 Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	220	1280	300	220	1020	330	310	120	210	660	160	190
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	229	1333	230	229	1062	241	323	125	88	688	167	73
Adj No. of Lanes	2	3	1	2	3	1	2	1	1	2	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	292	2018	620	297	2025	623	394	177	150	729	359	303
Arrive On Green	0.17	0.80	0.80	0.09	0.40	0.40	0.12	0.10	0.10	0.21	0.19	0.19
Sat Flow, veh/h	3408	5036	1547	3408	5036	1548	3408	1845	1563	3408	1845	1561
Grp Volume(v), veh/h	229	1333	230	229	1062	241	323	125	88	688	167	73
Grp Sat Flow(s),veh/h/ln	1704	1679	1547	1704	1679	1548	1704	1845	1563	1704	1845	1561
Q Serve(g_s), s	6.4	11.2	4.2	6.6	16.0	11.0	9.3	6.6	5.4	19.9	8.0	4.0
Cycle Q Clear(g_c), s	6.4	11.2	4.2	6.6	16.0	11.0	9.3	6.6	5.4	19.9	8.0	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	292	2018	620	297	2025	623	394	177	150	729	359	303
V/C Ratio(X)	0.78	0.66	0.37	0.77	0.52	0.39	0.82	0.71	0.59	0.94	0.47	0.24
Avail Cap(c_a), veh/h	525	2018	620	525	2025	623	729	341	289	729	359	303
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	7.1	6.4	44.7	22.6	21.2	43.2	43.8	43.3	38.7	35.7	34.0
Incr Delay (d2), s/veh	1.6	1.6	1.6	1.6	1.0	1.8	1.6	3.8	2.7	20.4	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	5.2	1.9	3.2	7.6	5.0	4.4	3.5	2.4	11.4	4.2	1.7
LnGrp Delay(d),s/veh	42.2	8.6	7.9	46.3	23.6	23.0	44.8	47.6	46.0	59.1	36.4	34.3
LnGrp LOS	D	A	A	D	C	C	D	D	D	E	D	C
Approach Vol, veh/h		1792			1532			536			928	
Approach Delay, s/veh		12.8			26.9			45.7			53.1	
Approach LOS		B			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.2	45.7	16.2	24.9	13.3	45.6	26.0	15.1				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	15.4	24.5	21.4	18.5	15.4	24.5	21.4	18.5				
Max Q Clear Time (g_c+I1), s	8.4	18.0	11.3	10.0	8.6	13.2	21.9	8.6				
Green Ext Time (p_c), s	0.2	6.0	0.3	1.1	0.2	9.9	0.0	0.6				
Intersection Summary												
HCM 2010 Ctrl Delay			28.8									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
 38: Elk Grove Blvd & Four Winds Dr

Cumulative Conditions
 Timing Plan: PM Peak Hour

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Volume (veh/h)	110	2110	1480	420	340	70		
Number	1	6	2	12	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845		
Adj Flow Rate, veh/h	115	2198	1542	268	354	24		
Adj No. of Lanes	1	3	3	1	2	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	3	3	3	3	3	3		
Cap, veh/h	145	3731	3021	939	447	206		
Arrive On Green	0.08	0.74	0.60	0.60	0.13	0.13		
Sat Flow, veh/h	1757	5202	5202	1565	3408	1568		
Grp Volume(v), veh/h	115	2198	1542	268	354	24		
Grp Sat Flow(s),veh/h/ln	1757	1679	1679	1565	1704	1568		
Q Serve(g_s), s	5.1	15.9	13.9	6.5	8.0	1.1		
Cycle Q Clear(g_c), s	5.1	15.9	13.9	6.5	8.0	1.1		
Prop In Lane	1.00			1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	145	3731	3021	939	447	206		
V/C Ratio(X)	0.79	0.59	0.51	0.29	0.79	0.12		
Avail Cap(c_a), veh/h	276	3731	3021	939	1096	504		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.48	0.48	1.00	1.00		
Uniform Delay (d), s/veh	35.6	4.7	9.1	7.6	33.3	30.3		
Incr Delay (d2), s/veh	3.6	0.7	0.3	0.4	1.2	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.6	7.4	6.5	2.9	3.8	0.5		
LnGrp Delay(d),s/veh	39.2	5.4	9.4	8.0	34.5	30.4		
LnGrp LOS	D	A	A	A	C	C		
Approach Vol, veh/h		2313	1810		378			
Approach Delay, s/veh		7.1	9.2		34.2			
Approach LOS		A	A		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	11.1	52.9				64.0		15.0
Change Period (Y+Rc), s	4.6	5.5				5.5		4.6
Max Green Setting (Gmax), s	12.4	26.5				43.5		25.4
Max Q Clear Time (g_c+I1), s	7.1	15.9				17.9		10.0
Green Ext Time (p_c), s	0.0	10.3				24.4		0.4
Intersection Summary								
HCM 2010 Ctrl Delay			10.2					
HCM 2010 LOS			B					
Notes								
User approved pedestrian interval to be less than phase max green.								

HCM 2010 Signalized Intersection Summary
39: Franklin Blvd & Elk Grove Blvd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	200	1700	740	100	1250	290	640	550	190	360	450	260
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	217	1848	624	109	1359	116	696	598	129	391	489	38
Adj No. of Lanes	2	3	2	2	3	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	292	1936	1387	171	1757	534	782	927	403	452	587	253
Arrive On Green	0.09	0.38	0.38	0.05	0.35	0.35	0.23	0.26	0.26	0.13	0.17	0.17
Sat Flow, veh/h	3408	5036	2656	3408	5036	1531	3408	3505	1525	3408	3505	1512
Grp Volume(v), veh/h	217	1848	624	109	1359	116	696	598	129	391	489	38
Grp Sat Flow(s),veh/h/ln	1704	1679	1328	1704	1679	1531	1704	1752	1525	1704	1752	1512
Q Serve(g_s), s	7.5	42.8	17.8	3.8	28.9	6.4	23.7	18.2	8.2	13.5	16.2	2.6
Cycle Q Clear(g_c), s	7.5	42.8	17.8	3.8	28.9	6.4	23.7	18.2	8.2	13.5	16.2	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	292	1936	1387	171	1757	534	782	927	403	452	587	253
V/C Ratio(X)	0.74	0.95	0.45	0.64	0.77	0.22	0.89	0.65	0.32	0.86	0.83	0.15
Avail Cap(c_a), veh/h	494	1936	1387	494	1757	534	863	978	426	494	599	258
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	35.9	18.3	55.9	34.8	27.5	44.8	39.1	35.5	51.0	48.3	42.6
Incr Delay (d2), s/veh	1.1	9.8	0.8	1.5	3.4	0.9	9.9	1.0	0.2	12.9	9.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	21.6	6.6	1.8	13.9	2.8	12.2	8.9	3.5	7.2	8.5	1.1
LnGrp Delay(d),s/veh	54.6	45.7	19.1	57.4	38.2	28.5	54.7	40.1	35.6	63.9	57.3	42.7
LnGrp LOS	D	D	B	E	D	C	D	D	D	E	E	D
Approach Vol, veh/h		2689			1584			1423			918	
Approach Delay, s/veh		40.3			38.8			46.9			59.5	
Approach LOS		D			D			D			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.9	47.4	32.1	25.6	10.6	51.6	20.5	37.2				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	17.4	31.5	30.4	20.5	17.4	31.5	17.4	33.5				
Max Q Clear Time (g_c+I1), s	9.5	30.9	25.7	18.2	5.8	44.8	15.5	20.2				
Green Ext Time (p_c), s	0.8	0.6	1.8	1.9	0.4	0.0	0.4	9.3				
Intersection Summary												
HCM 2010 Ctrl Delay			44.0									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
40: Backer Ranch Dr & Elk Grove Blvd

Cumulative Conditions
Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	1850	120	110	1760	40	160	30	70	60	40	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	83	1927	120	115	1833	42	167	31	26	62	42	19
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	104	2995	186	137	3229	74	193	106	89	79	61	28
Arrive On Green	0.06	0.62	0.62	0.16	1.00	1.00	0.11	0.12	0.12	0.04	0.05	0.05
Sat Flow, veh/h	1757	4840	300	1757	5065	116	1757	913	766	1757	1204	545
Grp Volume(v), veh/h	83	1334	713	115	1215	660	167	0	57	62	0	61
Grp Sat Flow(s),veh/h/ln	1757	1679	1783	1757	1679	1824	1757	0	1679	1757	0	1749
Q Serve(g_s), s	6.3	33.9	34.3	8.6	0.0	0.0	12.6	0.0	4.2	4.7	0.0	4.6
Cycle Q Clear(g_c), s	6.3	33.9	34.3	8.6	0.0	0.0	12.6	0.0	4.2	4.7	0.0	4.6
Prop In Lane	1.00		0.17	1.00		0.06	1.00		0.46	1.00		0.31
Lane Grp Cap(c), veh/h	104	2077	1103	137	2140	1163	193	0	194	79	0	88
V/C Ratio(X)	0.80	0.64	0.65	0.84	0.57	0.57	0.86	0.00	0.29	0.79	0.00	0.69
Avail Cap(c_a), veh/h	135	2077	1103	161	2140	1163	278	0	428	96	0	264
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.26	0.26	0.26	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.7	16.3	16.3	56.2	0.0	0.0	59.1	0.0	54.7	63.8	0.0	63.0
Incr Delay (d2), s/veh	17.0	1.5	2.9	7.9	0.3	0.5	12.9	0.0	0.3	23.2	0.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	16.0	17.7	4.5	0.1	0.2	6.8	0.0	2.0	2.8	0.0	2.3
LnGrp Delay(d),s/veh	79.8	17.8	19.3	64.1	0.3	0.5	72.0	0.0	55.0	87.0	0.0	66.6
LnGrp LOS	E	B	B	E	A	A	E		D	F		E
Approach Vol, veh/h		2130			1990			224				123
Approach Delay, s/veh		20.7			4.1			67.7				76.9
Approach LOS		C			A			E				E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.1	89.0	19.4	11.4	12.6	91.6	10.7	20.2				
Change Period (Y+Rc), s	4.6	5.5	4.6	4.6	4.6	5.5	4.6	4.6				
Max Green Setting (Gmax), s	12.4	61.5	21.4	20.4	10.4	63.5	7.4	34.4				
Max Q Clear Time (g_c+I1), s	10.6	36.3	14.6	6.6	8.3	2.0	6.7	6.2				
Green Ext Time (p_c), s	0.1	24.1	0.2	0.2	0.0	55.5	0.0	0.3				
Intersection Summary												
HCM 2010 Ctrl Delay			17.2									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
41: Bruceville Rd & Elk Grove Blvd

Cumulative Conditions
Timing Plan: PM Peak Hour
























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	410	1380	140	490	1610	370	130	780	240	310	1180	240
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	446	1500	55	533	1750	275	141	848	127	337	1283	78
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	465	1753	533	566	1902	579	190	1439	397	349	1689	466
Arrive On Green	0.27	0.70	0.70	0.11	0.25	0.25	0.05	0.26	0.26	0.10	0.31	0.31
Sat Flow, veh/h	3408	5036	1531	3408	5036	1532	3514	5534	1525	3514	5534	1528
Grp Volume(v), veh/h	446	1500	55	533	1750	275	141	848	127	337	1283	78
Grp Sat Flow(s),veh/h/ln	1704	1679	1531	1704	1679	1532	1757	1845	1525	1757	1845	1528
Q Serve(g_s), s	17.4	30.2	1.6	21.0	45.7	20.6	5.3	18.1	9.1	12.9	28.3	5.0
Cycle Q Clear(g_c), s	17.4	30.2	1.6	21.0	45.7	20.6	5.3	18.1	9.1	12.9	28.3	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	465	1753	533	566	1902	579	190	1439	397	349	1689	466
V/C Ratio(X)	0.96	0.86	0.10	0.94	0.92	0.48	0.74	0.59	0.32	0.97	0.76	0.17
Avail Cap(c_a), veh/h	465	1753	533	566	1902	579	193	1455	401	349	1701	470
HCM Platoon Ratio	2.00	2.00	2.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	0.26	0.26	0.26	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	18.0	13.6	59.4	48.4	39.1	62.9	43.6	40.3	60.6	42.4	34.3
Incr Delay (d2), s/veh	23.3	3.6	0.2	8.9	2.6	0.7	12.4	0.4	0.2	38.9	1.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	14.0	0.7	10.6	21.7	8.8	2.9	9.2	3.8	8.2	14.7	2.1
LnGrp Delay(d),s/veh	72.0	21.5	13.9	68.2	51.0	39.8	75.4	44.1	40.5	99.5	44.2	34.4
LnGrp LOS	E	C	B	E	D	D	E	D	D	F	D	C
Approach Vol, veh/h		2001			2558			1116			1698	
Approach Delay, s/veh		32.6			53.4			47.6			54.8	
Approach LOS		C			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.0	57.1	11.9	46.7	27.0	53.1	18.0	40.6				
Change Period (Y+Rc), s	4.6	6.0	4.6	5.5	4.6	* 6	4.6	5.5				
Max Green Setting (Gmax), s	18.4	47.0	7.4	41.5	22.4	* 44	13.4	35.5				
Max Q Clear Time (g_c+I1), s	19.4	47.7	7.3	30.3	23.0	32.2	14.9	20.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	10.9	0.0	11.2	0.0	14.9				
Intersection Summary												
HCM 2010 Ctrl Delay			47.2									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary

42: Elk Grove Blvd & Wymark Dr

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	1850	50	40	2500	150	30	20	90	90	20	20
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1900	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	33	2011	53	43	2717	155	33	22	72	114	0	18
Adj No. of Lanes	1	3	1	1	3	0	0	1	1	2	0	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	46	3088	932	55	2972	166	102	68	141	304	0	128
Arrive On Green	0.02	0.41	0.41	0.04	0.81	0.81	0.09	0.09	0.09	0.09	0.00	0.09
Sat Flow, veh/h	1757	5036	1519	1757	4871	272	1075	716	1483	3514	0	1477
Grp Volume(v), veh/h	33	2011	53	43	1855	1017	55	0	72	114	0	18
Grp Sat Flow(s),veh/h/ln	1757	1679	1519	1757	1679	1786	1791	0	1483	1757	0	1477
Q Serve(g_s), s	2.5	43.4	2.8	3.3	53.1	59.7	3.9	0.0	6.2	4.1	0.0	1.5
Cycle Q Clear(g_c), s	2.5	43.4	2.8	3.3	53.1	59.7	3.9	0.0	6.2	4.1	0.0	1.5
Prop In Lane	1.00		1.00	1.00		0.15	0.60		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	46	3088	932	55	2048	1090	170	0	141	304	0	128
V/C Ratio(X)	0.71	0.65	0.06	0.78	0.91	0.93	0.32	0.00	0.51	0.37	0.00	0.14
Avail Cap(c_a), veh/h	69	3088	932	83	2048	1090	417	0	345	895	0	376
HCM Platoon Ratio	0.67	0.67	0.67	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.35	0.35	0.35	0.09	0.09	0.09	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	65.8	28.2	16.2	64.2	10.0	10.6	57.0	0.0	58.1	58.2	0.0	57.0
Incr Delay (d2), s/veh	7.0	0.4	0.0	2.5	0.7	2.0	1.1	0.0	2.9	0.8	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	20.3	1.2	1.6	24.0	29.0	2.0	0.0	2.7	2.0	0.0	0.6
LnGrp Delay(d),s/veh	72.8	28.5	16.3	66.7	10.7	12.6	58.1	0.0	61.0	59.0	0.0	57.5
LnGrp LOS	E	C	B	E	B	B	E		E	E		E
Approach Vol, veh/h		2097			2915			127				132
Approach Delay, s/veh		28.9			12.2			59.7				58.8
Approach LOS		C			B			E				E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	89.1		18.4	9.8	89.5		17.3				
Change Period (Y+Rc), s	6.7	6.7		5.6	5.6	6.7		5.6				
Max Green Setting (Gmax), s	5.3	39.3		31.4	6.4	39.3		34.4				
Max Q Clear Time (g_c+I1), s	4.5	61.7		8.2	5.3	45.4		6.1				
Green Ext Time (p_c), s	0.0	0.0		0.7	0.0	0.0		0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			21.2									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

HCM 2010 Signalized Intersection Summary

43: Big Horn Blvd & Elk Grove Blvd

Cumulative Conditions
Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	210	1500	310	340	1980	360	430	670	210	330	800	210
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	228	1630	292	370	2152	337	467	728	32	359	870	30
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	237	1847	562	389	2070	631	439	896	390	389	844	367
Arrive On Green	0.02	0.12	0.12	0.11	0.41	0.41	0.13	0.26	0.26	0.11	0.24	0.24
Sat Flow, veh/h	3408	5036	1532	3408	5036	1534	3408	3505	1524	3408	3505	1523
Grp Volume(v), veh/h	228	1630	292	370	2152	337	467	728	32	359	870	30
Grp Sat Flow(s),veh/h/ln	1704	1679	1532	1704	1679	1534	1704	1752	1524	1704	1752	1523
Q Serve(g_s), s	9.0	43.0	24.1	14.6	55.5	22.4	17.4	26.3	2.2	14.1	32.5	2.1
Cycle Q Clear(g_c), s	9.0	43.0	24.1	14.6	55.5	22.4	17.4	26.3	2.2	14.1	32.5	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	237	1847	562	389	2070	631	439	896	390	389	844	367
V/C Ratio(X)	0.96	0.88	0.52	0.95	1.04	0.53	1.06	0.81	0.08	0.92	1.03	0.08
Avail Cap(c_a), veh/h	237	1847	562	389	2070	631	439	896	390	389	844	367
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.72	1.00	1.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.8	56.5	48.2	59.4	39.8	30.0	58.8	47.2	38.2	59.2	51.3	39.7
Incr Delay (d2), s/veh	38.8	4.8	2.5	33.0	30.9	3.2	55.6	4.2	0.0	26.9	39.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	20.9	10.7	8.7	31.6	10.1	11.6	13.3	0.9	8.1	20.3	0.9
LnGrp Delay(d),s/veh	104.6	61.3	50.7	92.4	70.7	33.2	114.4	51.4	38.2	86.1	90.5	39.7
LnGrp LOS	F	E	D	F	F	C	F	D	D	F	F	D
Approach Vol, veh/h		2150			2859			1227			1259	
Approach Delay, s/veh		64.5			69.1			75.0			88.0	
Approach LOS		E			E			E			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.0	61.0	22.0	38.0	20.0	55.0	20.0	40.0				
Change Period (Y+Rc), s	4.6	5.5	4.6	5.5	4.6	5.5	4.6	5.5				
Max Green Setting (Gmax), s	9.4	55.5	17.4	32.5	15.4	49.5	15.4	34.5				
Max Q Clear Time (g_c+I1), s	11.0	57.5	19.4	34.5	16.6	45.0	16.1	28.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	4.5	0.0	5.5				
Intersection Summary												
HCM 2010 Ctrl Delay			71.9									
HCM 2010 LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
PM Peak Hour

Intersection 44 Laguna Springs Dr/Elk Grove Blvd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	530	481	90.8%	63.7	6.8	E
	Through	240	219	91.2%	64.8	12.5	E
	Right Turn	420	373	88.8%	70.9	43.9	E
	Subtotal	1,190	1,073	90.2%	66.4	12.2	E
SB	Left Turn	170	135	79.4%	102.3	31.0	F
	Through	200	175	87.4%	91.0	19.6	F
	Right Turn	140	123	87.5%	67.6	24.4	E
	Subtotal	510	432	84.8%	88.0	17.3	F
EB	Left Turn	120	84	69.9%	153.9	39.5	F
	Through	1,700	938	55.2%	193.8	31.4	F
	Right Turn	280	153	54.5%	158.6	33.5	F
	Subtotal	2,100	1,174	55.9%	186.5	30.9	F
WB	Left Turn	520	416	80.0%	67.7	5.2	E
	Through	2,150	1,658	77.1%	27.5	3.5	C
	Right Turn	100	70	69.6%	30.5	7.6	C
	Subtotal	2,770	2,144	77.4%	35.5	2.5	D
Total		6,570	4,824	73.4%	83.5	8.2	F

Intersection 45 Auto Center Dr/Elk Grove Blvd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	230	213	92.8%	69.3	17.9	E
	Through	50	38	75.8%	203.3	36.1	F
	Right Turn	520	357	68.7%	197.3	33.0	F
	Subtotal	800	609	76.1%	152.6	26.3	F
SB	Left Turn	210	124	58.9%	296.1	36.9	F
	Through	30	17	55.2%	290.1	66.9	F
	Right Turn	150	102	67.7%	259.0	42.8	F
	Subtotal	390	242	62.0%	278.7	38.6	F
EB	Left Turn	160	121	75.7%	191.7	33.3	F
	Through	1,930	1,200	62.2%	151.5	12.5	F
	Right Turn	140	74	53.1%	172.7	18.6	F
	Subtotal	2,230	1,396	62.6%	156.3	13.2	F
WB	Left Turn	390	287	73.7%	80.9	11.5	F
	Through	2,390	1,946	81.4%	33.4	3.8	C
	Right Turn	10	6	58.9%	40.3	25.6	D
	Subtotal	2,790	2,239	80.3%	39.5	3.9	D
Total		6,210	4,486	72.2%	103.8	4.8	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
PM Peak Hour

Intersection 46 SR 99 SB Ramps/Elk Grove Blvd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	670	593	88.5%	54.6	16.3	D
	Through	20	18	92.0%	47.4	11.1	D
	Right Turn	1,080	975	90.3%	91.7	20.3	F
	Subtotal	1,770	1,586	89.6%	77.4	17.0	E
EB	Left Turn						
	Through	2,510	1,562	62.2%	85.4	6.1	F
	Right Turn	270	159	58.7%	78.3	8.9	E
	Subtotal	2,780	1,721	61.9%	84.7	6.2	F
WB	Left Turn	580	327	56.3%	167.5	15.4	F
	Through	1,900	1,245	65.5%	18.6	5.1	B
	Right Turn						
	Subtotal	2,480	1,571	63.4%	49.8	5.1	D
Total		7,030	4,878	69.4%	70.8	4.6	E

Intersection 47 SR 99 NB Ramps/Elk Grove Blvd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	3,190	2,150	67.4%	7.4	2.8	A
	Right Turn						
	Subtotal	3,190	2,150	67.4%	7.4	2.8	A
WB	Left Turn						
	Through	2,480	1,609	64.9%	55.2	31.9	E
	Right Turn	280	203	72.5%	19.0	12.3	B
	Subtotal	2,760	1,812	65.7%	51.2	29.6	D
Total		5,950	3,962	66.6%	26.8	12.7	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
PM Peak Hour

Intersection 48 E Stockton Blvd/SR 99 NB Ramps Signal























Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	260	218	83.9%	117.0	45.8	F
	Through	330	303	91.9%	78.6	33.7	E
	Right Turn	30	26	88.3%	86.2	65.7	F
	Subtotal	620	548	88.4%	94.7	34.7	F
SB	Left Turn	210	126	59.9%	75.7	18.3	E
	Through	590	359	60.8%	49.8	17.7	D
	Right Turn	1,470	883	60.1%	28.8	4.6	C
	Subtotal	2,270	1,368	60.3%	38.8	8.0	D
EB	Left Turn	590	382	64.8%	195.8	69.6	F
	Through	30	20	65.0%	249.5	111.0	F
	Right Turn	120	73	60.7%	243.1	98.3	F
	Subtotal	740	475	64.2%	204.7	74.0	F
WB	Left Turn	30	29	95.7%	47.1	10.8	D
	Through	40	41	103.0%	50.2	10.3	D
	Right Turn	70	73	104.6%	26.5	12.4	C
	Subtotal	140	143	102.3%	38.0	6.3	D
Total		3,770	2,534	67.2%	80.3	17.0	F

Intersection 49 Emerald Vista Dr-E Stockton Blvd/Elk Grove Blvd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	380	276	72.6%	95.9	56.8	F
	Through	270	192	71.1%	103.2	13.8	F
	Right Turn	380	295	77.7%	99.6	16.4	F
	Subtotal	1,030	763	74.1%	97.7	17.7	F
SB	Left Turn	200	75	37.7%	355.8	35.7	F
	Through	700	320	45.7%	341.6	44.3	F
	Right Turn	570	343	60.2%	208.3	41.7	F
	Subtotal	1,470	739	50.3%	281.5	41.9	F
EB	Left Turn	390	217	55.8%	218.9	54.2	F
	Through	1,230	881	71.7%	32.5	5.9	C
	Right Turn	1,460	980	67.1%	31.2	20.4	C
	Subtotal	3,080	2,078	67.5%	51.2	10.7	D
WB	Left Turn	110	76	68.9%	270.3	67.2	F
	Through	1,790	1,263	70.5%	233.0	31.6	F
	Right Turn	130	92	70.5%	193.9	29.8	F
	Subtotal	2,030	1,430	70.4%	232.5	31.3	F
Total		7,610	5,011	65.8%	143.2	13.5	F

























HCM 2010 Signalized Intersection Summary
50: Elk Grove Florin Rd & Elk Grove Blvd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	600	870	300	140	710	140	250	400	110	130	340	790
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	625	906	139	146	740	139	260	417	99	135	354	557
Adj No. of Lanes	2	2	1	1	2	0	1	1	0	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	682	1285	564	171	776	146	285	470	111	124	827	515
Arrive On Green	0.20	0.37	0.37	0.10	0.26	0.26	0.16	0.33	0.33	0.07	0.24	0.24
Sat Flow, veh/h	3408	3505	1538	1757	2939	552	1757	1435	341	1757	3505	1538
Grp Volume(v), veh/h	625	906	139	146	441	438	260	0	516	135	354	557
Grp Sat Flow(s),veh/h/ln	1704	1752	1538	1757	1752	1738	1757	0	1776	1757	1752	1538
Q Serve(g_s), s	23.9	29.4	8.4	10.9	33.0	33.0	19.4	0.0	36.7	9.4	11.4	31.4
Cycle Q Clear(g_c), s	23.9	29.4	8.4	10.9	33.0	33.0	19.4	0.0	36.7	9.4	11.4	31.4
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	682	1285	564	171	463	459	285	0	581	124	827	515
V/C Ratio(X)	0.92	0.70	0.25	0.85	0.95	0.95	0.91	0.00	0.89	1.09	0.43	1.08
Avail Cap(c_a), veh/h	957	1285	564	388	466	462	493	0	765	124	827	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	36.0	29.3	59.2	48.2	48.2	54.9	0.0	42.5	61.9	43.2	44.5
Incr Delay (d2), s/veh	8.6	1.5	0.1	4.6	29.8	30.0	7.3	0.0	8.4	106.5	0.1	63.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	14.5	3.6	5.5	19.8	19.6	10.0	0.0	19.3	8.2	5.6	27.9
LnGrp Delay(d),s/veh	60.8	37.5	29.4	63.8	78.0	78.2	62.1	0.0	50.9	168.4	43.4	107.8
LnGrp LOS	E	D	C	E	E	E	E		D	F	D	F
Approach Vol, veh/h		1670			1025			776			1046	
Approach Delay, s/veh		45.5			76.1			54.7			93.8	
Approach LOS		D			E			D			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.2	39.8	26.2	36.0	17.5	53.4	14.0	48.2				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	37.4	35.4	37.4	31.4	29.4	43.4	9.4	57.4				
Max Q Clear Time (g_c+I1), s	25.9	35.0	21.4	33.4	12.9	31.4	11.4	38.7				
Green Ext Time (p_c), s	0.7	0.2	0.2	0.0	0.1	6.9	0.0	3.5				
Intersection Summary												
HCM 2010 Ctrl Delay			65.2									
HCM 2010 LOS			E									
























HCM 2010 Signalized Intersection Summary
51: Waterman Rd & Elk Grove Blvd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	620	280	140	500	150	380	630	180	240	480	90
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	1863	1900	1900	1863	1881	1900	1863	1845
Adj Flow Rate, veh/h	126	653	242	147	526	95	400	663	116	253	505	27
Adj No. of Lanes	1	1	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	2	0	0	2	1	0	2	3
Cap, veh/h	153	662	559	164	1258	509	398	911	408	280	679	296
Arrive On Green	0.08	0.35	0.35	0.09	0.36	0.36	0.22	0.26	0.26	0.15	0.19	0.19
Sat Flow, veh/h	1810	1900	1602	1792	3539	1431	1810	3539	1586	1810	3539	1543
Grp Volume(v), veh/h	126	653	242	147	526	95	400	663	116	253	505	27
Grp Sat Flow(s),veh/h/ln	1810	1900	1602	1792	1770	1431	1810	1770	1586	1810	1770	1543
Q Serve(g_s), s	8.5	42.5	14.4	10.1	14.0	5.7	27.4	21.3	7.3	17.1	16.7	1.8
Cycle Q Clear(g_c), s	8.5	42.5	14.4	10.1	14.0	5.7	27.4	21.3	7.3	17.1	16.7	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	153	662	559	164	1258	509	398	911	408	280	679	296
V/C Ratio(X)	0.82	0.99	0.43	0.90	0.42	0.19	1.00	0.73	0.28	0.90	0.74	0.09
Avail Cap(c_a), veh/h	253	662	559	164	1258	509	398	1092	489	340	978	427
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	40.2	31.1	56.0	30.4	27.7	48.5	42.2	37.0	51.7	47.4	41.4
Incr Delay (d2), s/veh	10.4	31.2	0.2	40.8	0.1	0.1	46.2	1.5	0.1	21.4	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	28.1	6.4	6.9	6.9	2.3	18.7	10.6	3.2	10.2	8.3	0.8
LnGrp Delay(d),s/veh	66.4	71.4	31.3	96.8	30.4	27.8	94.7	43.7	37.2	73.1	48.3	41.4
LnGrp LOS	E	E	C	F	C	C	F	D	D	E	D	D
Approach Vol, veh/h		1021			768			1179			785	
Approach Delay, s/veh		61.3			42.8			60.4			56.0	
Approach LOS		E			D			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.1	48.9	32.0	28.5	16.0	48.0	23.9	36.6				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	17.4	37.4	27.4	34.4	11.4	43.4	23.4	38.4				
Max Q Clear Time (g_c+I1), s	10.5	16.0	29.4	18.7	12.1	44.5	19.1	23.3				
Green Ext Time (p_c), s	0.2	6.5	0.0	5.1	0.0	0.0	0.2	5.0				
Intersection Summary												
HCM 2010 Ctrl Delay			56.1									
HCM 2010 LOS			E									

HCM 2010 Signalized Intersection Summary
52: Bradshaw Rd & Elk Grove Blvd




















Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	130	190	140	30	220	60	130	1120	20	90	1170	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1900	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	140	204	151	32	237	65	140	1204	22	97	1258	161
Adj No. of Lanes	1	2	1	0	1	1	1	2	0	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	216	431	193	37	271	258	166	1725	32	119	1623	726
Arrive On Green	0.12	0.12	0.12	0.17	0.17	0.17	0.09	0.49	0.49	0.07	0.46	0.46
Sat Flow, veh/h	1757	3505	1568	218	1616	1543	1757	3521	64	1757	3505	1568
Grp Volume(v), veh/h	140	204	151	269	0	65	140	599	627	97	1258	161
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1834	0	1543	1757	1752	1833	1757	1752	1568
Q Serve(g_s), s	9.8	7.0	12.0	18.4	0.0	4.7	10.1	34.1	34.1	7.0	38.7	7.9
Cycle Q Clear(g_c), s	9.8	7.0	12.0	18.4	0.0	4.7	10.1	34.1	34.1	7.0	38.7	7.9
Prop In Lane	1.00		1.00	0.12		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	216	431	193	307	0	258	166	859	898	119	1623	726
V/C Ratio(X)	0.65	0.47	0.78	0.88	0.00	0.25	0.84	0.70	0.70	0.81	0.77	0.22
Avail Cap(c_a), veh/h	374	747	334	429	0	361	273	859	898	137	1623	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	52.5	54.7	52.2	0.0	46.5	57.3	25.4	25.4	59.1	28.9	20.7
Incr Delay (d2), s/veh	3.2	0.8	6.8	13.8	0.0	0.5	11.6	4.7	4.5	27.0	3.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	3.4	5.6	10.5	0.0	2.0	5.4	17.6	18.4	4.3	19.5	3.5
LnGrp Delay(d),s/veh	57.0	53.3	61.5	66.0	0.0	47.0	68.9	30.1	29.9	86.1	32.6	21.4
LnGrp LOS	E	D	E	E		D	E	C	C	F	C	C
Approach Vol, veh/h		495			334			1366			1516	
Approach Delay, s/veh		56.9			62.3			34.0			34.8	
Approach LOS		E			E			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.7	68.0		20.4	17.2	64.6		26.4				
Change Period (Y+Rc), s	5.0	5.0		4.6	5.0	5.0		4.9				
Max Green Setting (Gmax), s	10.0	63.0		27.4	20.0	53.0		30.1				
Max Q Clear Time (g_c+I1), s	9.0	36.1		14.0	12.1	40.7		20.4				
Green Ext Time (p_c), s	0.0	19.0		1.8	0.2	10.2		1.1				
Intersection Summary												
HCM 2010 Ctrl Delay				39.9								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary

























53: Grant Line Rd & Elk Grove Blvd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	150	50	20	20	30	10	50	760	40	10	700	230
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1891	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	163	54	0	22	33	11	54	826	43	11	761	0
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	0	2	1
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
Percent Heavy Veh, %	2	2	0	2	2	2	0	2	2	2	2	0
Cap, veh/h	200	66	236	29	44	15	136	2158	112	0	1749	798
Arrive On Green	0.15	0.15	0.00	0.05	0.05	0.05	0.08	0.63	0.63	0.00	0.49	0.00
Sat Flow, veh/h	1369	453	1615	594	890	297	1810	3423	178	0	3539	1615
Grp Volume(v), veh/h	217	0	0	66	0	0	54	427	442	0	761	0
Grp Sat Flow(s),veh/h/ln	1822	0	1615	1781	0	0	1810	1770	1831	0	1770	1615
Q Serve(g_s), s	11.0	0.0	0.0	3.5	0.0	0.0	2.7	11.2	11.2	0.0	13.2	0.0
Cycle Q Clear(g_c), s	11.0	0.0	0.0	3.5	0.0	0.0	2.7	11.2	11.2	0.0	13.2	0.0
Prop In Lane	0.75		1.00	0.33		0.17	1.00		0.10	0.00		1.00
Lane Grp Cap(c), veh/h	267	0	236	88	0	0	136	1116	1154	0	1749	798
V/C Ratio(X)	0.81	0.00	0.00	0.75	0.00	0.00	0.40	0.38	0.38	0.00	0.44	0.00
Avail Cap(c_a), veh/h	584	0	518	421	0	0	136	1116	1154	0	1749	798
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	39.5	0.0	0.0	44.8	0.0	0.0	42.1	8.6	8.6	0.0	15.6	0.0
Incr Delay (d2), s/veh	5.9	0.0	0.0	12.1	0.0	0.0	8.4	1.0	1.0	0.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	0.0	2.0	0.0	0.0	1.7	5.8	6.0	0.0	6.6	0.0
LnGrp Delay(d),s/veh	45.4	0.0	0.0	56.9	0.0	0.0	50.5	9.6	9.6	0.0	16.3	0.0
LnGrp LOS	D			E			D	A	A		B	
Approach Vol, veh/h		217			66			923			761	
Approach Delay, s/veh		45.4			56.9			12.0			16.3	
Approach LOS		D			E			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	66.0		19.4	13.0	53.0		10.1				
Change Period (Y+Rc), s	* 5.8	* 5.8		5.4	* 5.8	* 5.8		5.4				
Max Green Setting (Gmax), s	* 6.2	* 48		30.6	* 7.2	* 47		22.6				
Max Q Clear Time (g_c+I1), s	0.0	13.2		13.0	4.7	15.2		5.5				
Green Ext Time (p_c), s	0.0	11.9		1.0	0.0	11.5		0.2				
Intersection Summary												
HCM 2010 Ctrl Delay				18.9								
HCM 2010 LOS				B								
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
 54: Bruceville Rd & Backer Ranch Rd/Civic Center Dr

Cumulative Conditions
 Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	60	110	120	80	50	100	1170	110	70	1520	80
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	98	65	112	130	87	28	109	1272	78	76	1652	86
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	125	268	219	202	246	200	138	2040	884	99	1895	98
Arrive On Green	0.07	0.15	0.15	0.06	0.13	0.13	0.08	0.58	0.58	0.06	0.56	0.56
Sat Flow, veh/h	1757	1845	1506	3408	1845	1502	1757	3505	1518	1757	3384	175
Grp Volume(v), veh/h	98	65	112	130	87	28	109	1272	78	76	850	88
Grp Sat Flow(s),veh/h/ln	1757	1845	1506	1704	1845	1502	1757	1752	1518	1757	1752	1807
Q Serve(g_s), s	6.7	3.8	8.4	4.6	5.3	2.0	7.5	29.3	2.8	5.2	51.0	52.2
Cycle Q Clear(g_c), s	6.7	3.8	8.4	4.6	5.3	2.0	7.5	29.3	2.8	5.2	51.0	52.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	125	268	219	202	246	200	138	2040	884	99	981	1012
V/C Ratio(X)	0.78	0.24	0.51	0.64	0.35	0.14	0.79	0.62	0.09	0.77	0.87	0.88
Avail Cap(c_a), veh/h	357	601	490	693	601	489	357	2040	884	357	998	1029
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.1	46.5	48.5	56.5	48.5	47.0	55.6	16.8	11.3	57.2	23.1	23.4
Incr Delay (d2), s/veh	4.0	0.2	0.7	1.3	0.3	0.1	3.8	0.4	0.0	4.6	7.7	8.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	2.0	3.6	2.2	2.7	0.9	3.8	14.3	1.2	2.7	26.7	28.2
LnGrp Delay(d),s/veh	60.1	46.7	49.2	57.8	48.8	47.2	59.4	17.3	11.3	61.8	30.8	31.7
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	C	C
Approach Vol, veh/h		275			245			1459			1814	
Approach Delay, s/veh		52.5			53.4			20.1			32.5	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.2	74.3	13.4	21.0	11.5	77.0	11.9	22.5				
Change Period (Y+Rc), s	4.6	5.5	4.6	4.6	4.6	5.5	4.6	4.6				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	9.5	54.2	8.7	7.3	7.2	31.3	6.6	10.4				
Green Ext Time (p_c), s	0.4	14.6	0.3	1.1	0.2	37.8	0.8	1.1				
Intersection Summary												
HCM 2010 Ctrl Delay			30.5									
HCM 2010 LOS			C									

Intersection												
Intersection Delay, s/veh	11.3											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	30	180	30	0	120	200	40	0	50	30	80
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	32	191	32	0	128	213	43	0	53	32	85
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	11.6	11.7	10.7
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	31%	100%	0%	100%	0%	42%
Vol Thru, %	19%	0%	86%	0%	83%	33%
Vol Right, %	50%	0%	14%	0%	17%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	160	30	210	120	240	120
LT Vol	50	30	0	120	0	50
Through Vol	30	0	180	0	200	40
RT Vol	80	0	30	0	40	30
Lane Flow Rate	170	32	223	128	255	128
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.266	0.057	0.364	0.223	0.402	0.209
Departure Headway (Hd)	5.628	6.468	5.86	6.298	5.673	5.883
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	637	553	614	571	633	609
Service Time	3.675	4.21	3.601	4.035	3.41	3.932
HCM Lane V/C Ratio	0.267	0.058	0.363	0.224	0.403	0.21
HCM Control Delay	10.7	9.6	11.9	10.8	12.2	10.5
HCM Lane LOS	B	A	B	B	B	B
HCM 95th-tile Q	1.1	0.2	1.7	0.8	1.9	0.8

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	50	40	30
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	3	3	3	3
Mvmt Flow	0	53	43	32
Number of Lanes	0	0	1	0

























Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	10.5
HCM LOS	B

Lane













HCM 2010 Signalized Intersection Summary
56: Big Horn Blvd & Civic Center Dr

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	150	70	110	20	80	20	100	1130	20	20	1220	210
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.95	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	163	76	113	22	87	15	109	1228	22	22	1326	221
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	2	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	190	700	303	37	395	168	137	2039	37	37	1565	258
Arrive On Green	0.11	0.20	0.20	0.02	0.11	0.11	0.08	0.58	0.58	0.02	0.52	0.52
Sat Flow, veh/h	1757	3505	1518	1757	3505	1493	1757	3521	63	1757	2997	494
Grp Volume(v), veh/h	163	76	113	22	87	15	109	611	639	22	769	778
Grp Sat Flow(s),veh/h/ln	1757	1752	1518	1757	1752	1493	1757	1752	1832	1757	1752	1738
Q Serve(g_s), s	11.6	2.3	8.2	1.6	2.9	1.1	7.8	28.7	28.8	1.6	47.7	49.4
Cycle Q Clear(g_c), s	11.6	2.3	8.2	1.6	2.9	1.1	7.8	28.7	28.8	1.6	47.7	49.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		0.28
Lane Grp Cap(c), veh/h	190	700	303	37	395	168	137	1015	1061	37	915	908
V/C Ratio(X)	0.86	0.11	0.37	0.59	0.22	0.09	0.79	0.60	0.60	0.59	0.84	0.86
Avail Cap(c_a), veh/h	344	1099	476	344	1099	468	344	1015	1061	344	961	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	41.8	44.1	61.9	51.5	50.7	57.8	17.4	17.4	61.9	25.9	26.4
Incr Delay (d2), s/veh	4.2	0.0	0.3	5.4	0.1	0.1	3.9	0.7	0.7	5.4	6.0	7.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	1.1	3.5	0.8	1.4	0.5	3.9	14.1	14.8	0.8	24.4	25.4
LnGrp Delay(d),s/veh	60.1	41.8	44.4	67.3	51.6	50.8	61.7	18.1	18.1	67.3	32.0	33.5
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	C	C
Approach Vol, veh/h		352			124			1359			1569	
Approach Delay, s/veh		51.1			54.3			21.6			33.2	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.3	71.9	19.4	20.0	9.0	79.2	8.3	31.1				
Change Period (Y+Rc), s	6.3	5.3	5.6	5.6	6.3	5.3	5.6	* 5.6				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	* 40				
Max Q Clear Time (g_c+I1), s	9.8	51.4	13.6	4.9	3.6	30.8	3.6	10.2				
Green Ext Time (p_c), s	0.4	15.2	0.2	1.0	0.0	37.7	0.0	0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			31.2									
HCM 2010 LOS			C									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
57: Big Horn Blvd & Denali Circle
























Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↖	↗			↕	
Volume (veh/h)	60	10	50	10	10	10	110	1250	10	10	1370	70
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1846	1900	1900	1863	1900	1845	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	65	11	50	11	11	11	120	1359	11	11	1489	71
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	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
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	3	3	3
Cap, veh/h	87	15	67	17	17	17	150	2624	21	40	1979	94
Arrive On Green	0.10	0.10	0.10	0.03	0.03	0.03	0.09	0.74	0.74	0.60	0.60	0.60
Sat Flow, veh/h	850	144	654	577	577	577	1757	3563	29	8	3294	156
Grp Volume(v), veh/h	126	0	0	33	0	0	120	668	702	823	0	748
Grp Sat Flow(s),veh/h/ln	1647	0	0	1732	0	0	1757	1753	1840	1814	0	1645
Q Serve(g_s), s	7.8	0.0	0.0	2.0	0.0	0.0	7.0	17.1	17.1	0.0	0.0	34.9
Cycle Q Clear(g_c), s	7.8	0.0	0.0	2.0	0.0	0.0	7.0	17.1	17.1	33.8	0.0	34.9
Prop In Lane	0.52		0.40	0.33		0.33	1.00		0.02	0.01		0.09
Lane Grp Cap(c), veh/h	168	0	0	51	0	0	150	1290	1354	1124	0	988
V/C Ratio(X)	0.75	0.00	0.00	0.65	0.00	0.00	0.80	0.52	0.52	0.73	0.00	0.76
Avail Cap(c_a), veh/h	251	0	0	412	0	0	418	1290	1354	1240	0	1097
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.8	0.0	0.0	50.4	0.0	0.0	47.2	5.9	5.9	15.1	0.0	15.3
Incr Delay (d2), s/veh	6.7	0.0	0.0	5.0	0.0	0.0	3.8	0.2	0.2	1.7	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	0.0	1.0	0.0	0.0	3.6	8.2	8.6	17.7	0.0	16.4
LnGrp Delay(d),s/veh	52.5	0.0	0.0	55.5	0.0	0.0	50.9	6.1	6.1	16.8	0.0	17.6
LnGrp LOS	D			E			D	A	A	B		B
Approach Vol, veh/h		126			33			1490				1571
Approach Delay, s/veh		52.5			55.5			9.7				17.2
Approach LOS		D			E			A				B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	14.2	68.4		14.7		82.6		7.7				
Change Period (Y+Rc), s	5.3	5.3		4.0		5.3		4.6				
Max Green Setting (Gmax), s	25.0	70.0		16.0		70.0		25.0				
Max Q Clear Time (g_c+I1), s	9.0	36.9		9.8		19.1		4.0				
Green Ext Time (p_c), s	0.2	26.1		0.3		49.1		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			15.5									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary

























58: Big Horn Blvd & Denali Circle/Lotz Pkwy

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	150	20	410	220	290	40	1000	350	200	1100	130
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	98	163	20	446	239	269	43	1087	335	217	1196	131
Adj No. of Lanes	1	1	0	2	1	2	1	2	1	2	2	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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	120	279	34	495	463	893	56	1521	666	288	1544	169
Arrive On Green	0.07	0.17	0.17	0.15	0.25	0.25	0.03	0.43	0.43	0.08	0.49	0.49
Sat Flow, veh/h	1757	1605	197	3408	1845	2631	1757	3505	1535	3408	3175	347
Grp Volume(v), veh/h	98	0	183	446	239	269	43	1087	335	217	659	668
Grp Sat Flow(s),veh/h/ln	1757	0	1801	1704	1845	1315	1757	1752	1535	1704	1752	1769
Q Serve(g_s), s	8.3	0.0	14.0	19.3	16.7	11.4	3.6	38.2	23.7	9.4	46.4	46.9
Cycle Q Clear(g_c), s	8.3	0.0	14.0	19.3	16.7	11.4	3.6	38.2	23.7	9.4	46.4	46.9
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	120	0	313	495	463	893	56	1521	666	288	852	861
V/C Ratio(X)	0.82	0.00	0.58	0.90	0.52	0.30	0.76	0.71	0.50	0.75	0.77	0.78
Avail Cap(c_a), veh/h	292	0	480	567	491	934	292	1633	715	908	852	861
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.1	0.0	57.1	63.1	48.4	37.0	72.1	34.9	30.8	67.2	31.7	31.8
Incr Delay (d2), s/veh	5.1	0.0	0.6	14.9	0.3	0.1	7.8	1.1	0.2	1.5	4.0	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	7.1	10.1	8.6	4.1	1.9	18.7	10.1	4.5	23.5	23.8
LnGrp Delay(d),s/veh	74.2	0.0	57.7	78.1	48.8	37.0	79.9	36.0	31.0	68.7	35.8	36.0
LnGrp LOS	E		E	E	D	D	E	D	C	E	D	D
Approach Vol, veh/h		281			954			1465			1544	
Approach Delay, s/veh		63.5			59.1			36.2			40.5	
Approach LOS		E			E			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	78.4	15.8	44.9	19.0	70.5	27.4	33.3				
Change Period (Y+Rc), s	6.3	5.3	5.6	* 7.2	6.3	5.3	5.6	7.2				
Max Green Setting (Gmax), s	25.0	70.0	25.0	* 40	40.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	5.6	48.9	10.3	18.7	11.4	40.2	21.3	16.0				
Green Ext Time (p_c), s	0.1	20.2	0.1	2.6	1.3	25.0	0.5	2.7				
Intersection Summary												
HCM 2010 Ctrl Delay			44.7									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

























HCM 2010 Signalized Intersection Summary
59: Big Horn Blvd & Whitelock Pkwy

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	220	260	40	70	510	140	80	1080	60	90	1120	300
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	239	283	40	76	554	116	87	1174	50	98	1217	66
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	348	1122	490	145	913	397	151	1329	581	169	1348	590
Arrive On Green	0.10	0.32	0.32	0.04	0.26	0.26	0.04	0.38	0.38	0.05	0.38	0.38
Sat Flow, veh/h	3408	3505	1529	3408	3505	1525	3408	3505	1532	3408	3505	1533
Grp Volume(v), veh/h	239	283	40	76	554	116	87	1174	50	98	1217	66
Grp Sat Flow(s),veh/h/ln	1704	1752	1529	1704	1752	1525	1704	1752	1532	1704	1752	1533
Q Serve(g_s), s	7.1	6.2	1.9	2.3	14.5	6.4	2.6	32.7	2.2	2.9	34.2	2.9
Cycle Q Clear(g_c), s	7.1	6.2	1.9	2.3	14.5	6.4	2.6	32.7	2.2	2.9	34.2	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	348	1122	490	145	913	397	151	1329	581	169	1348	590
V/C Ratio(X)	0.69	0.25	0.08	0.52	0.61	0.29	0.58	0.88	0.09	0.58	0.90	0.11
Avail Cap(c_a), veh/h	1141	2011	877	815	2011	875	815	1340	586	1141	1348	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	26.3	24.8	49.0	34.0	30.9	49.0	30.3	20.8	48.6	30.3	20.7
Incr Delay (d2), s/veh	0.9	0.0	0.0	1.1	0.2	0.1	1.3	7.0	0.0	1.2	8.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	3.0	0.8	1.1	7.0	2.7	1.3	17.1	0.9	1.4	18.2	1.2
LnGrp Delay(d),s/veh	46.2	26.3	24.8	50.1	34.2	31.1	50.3	37.3	20.9	49.8	38.9	20.7
LnGrp LOS	D	C	C	D	C	C	D	D	C	D	D	C
Approach Vol, veh/h		562			746			1311			1381	
Approach Delay, s/veh		34.7			35.3			37.5			38.8	
Approach LOS		C			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	45.5	16.3	31.9	11.5	45.0	10.1	38.1				
Change Period (Y+Rc), s	6.3	5.3	5.6	4.6	6.3	5.3	5.6	4.6				
Max Green Setting (Gmax), s	25.0	40.0	35.0	60.0	35.0	40.0	25.0	60.0				
Max Q Clear Time (g_c+I1), s	4.6	36.2	9.1	16.5	4.9	34.7	4.3	8.2				
Green Ext Time (p_c), s	0.4	3.7	1.6	8.4	0.6	5.0	0.4	8.6				
Intersection Summary												
HCM 2010 Ctrl Delay			37.2									
HCM 2010 LOS			D									













HCM 2010 Signalized Intersection Summary
 60: Wolf Pack Lane/Laguna Springs Dr & Lotz Parkway

Cumulative Conditions
 Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	400	230	20	20	370	400	40	100	20	240	70	470
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	440	253	20	22	407	437	44	110	22	264	77	497
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	516	1530	684	76	1077	481	115	968	427	333	1192	533
Arrive On Green	0.15	0.44	0.44	0.02	0.31	0.31	0.03	0.28	0.28	0.10	0.34	0.34
Sat Flow, veh/h	3408	3505	1567	3408	3505	1565	3408	3505	1548	3408	3505	1568
Grp Volume(v), veh/h	440	253	20	22	407	437	44	110	22	264	77	497
Grp Sat Flow(s),veh/h/ln	1704	1752	1567	1704	1752	1565	1704	1752	1548	1704	1752	1568
Q Serve(g_s), s	13.8	4.8	0.8	0.7	10.0	29.5	1.4	2.6	1.1	8.3	1.6	33.7
Cycle Q Clear(g_c), s	13.8	4.8	0.8	0.7	10.0	29.5	1.4	2.6	1.1	8.3	1.6	33.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	516	1530	684	76	1077	481	115	968	427	333	1192	533
V/C Ratio(X)	0.85	0.17	0.03	0.29	0.38	0.91	0.38	0.11	0.05	0.79	0.06	0.93
Avail Cap(c_a), veh/h	1240	1530	684	1240	1275	569	2170	2232	986	775	2232	999
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	18.8	17.7	52.9	29.8	36.6	52.0	29.7	29.2	48.5	24.5	35.0
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.8	0.1	15.4	0.8	0.0	0.0	1.6	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	2.3	0.3	0.3	4.9	14.8	0.7	1.3	0.5	4.0	0.8	15.1
LnGrp Delay(d),s/veh	47.0	18.8	17.7	53.7	29.9	52.0	52.8	29.8	29.2	50.1	24.5	38.4
LnGrp LOS	D	B	B	D	C	D	D	C	C	D	C	D
Approach Vol, veh/h		713			866			176			838	
Approach Delay, s/veh		36.2			41.7			35.4			40.8	
Approach LOS		D			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	42.0	21.2	38.4	15.3	34.9	7.0	52.6				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	70.0	70.0	40.0	40.0	25.0	70.0	40.0	40.0				
Max Q Clear Time (g_c+I1), s	3.4	35.7	15.8	31.5	10.3	4.6	2.7	6.8				
Green Ext Time (p_c), s	0.1	1.7	0.8	2.0	0.4	1.7	0.0	3.9				
Intersection Summary												
HCM 2010 Ctrl Delay			39.5									
HCM 2010 LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
 61: Willard Pkwy/Franklin Blvd & Whitelock Pkwy

























Cumulative Conditions
 Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑		↵	↵	↵↵	↵	↵↵	↵	↵↵	↵	↵
Volume (veh/h)	0	0	0	80	0	320	20	1040	100	650	780	0
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	0	1845	1845	1845	1845	1845	1845	1845	1845	0
Adj Flow Rate, veh/h	0	0	0	88	0	118	22	1143	37	714	857	0
Adj No. of Lanes	0	1	0	1	0	3	1	2	1	2	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	3	0	3	3	3	3	3	3	3	3	0
Cap, veh/h	0	2	0	112	0	1381	39	2018	902	792	1450	0
Arrive On Green	0.00	0.00	0.00	0.06	0.00	0.06	0.02	0.58	0.58	0.23	0.79	0.00
Sat Flow, veh/h	0	-84854	0	1757	0	4501	1757	3505	1567	3408	1845	0
Grp Volume(v), veh/h	0	0	0	88	0	118	22	1143	37	714	857	0
Grp Sat Flow(s),veh/h/ln	0	1845	0	1757	0	1500	1757	1752	1567	1704	1845	0
Q Serve(g_s), s	0.0	0.0	0.0	5.7	0.0	2.2	1.4	23.6	1.2	23.4	21.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	5.7	0.0	2.2	1.4	23.6	1.2	23.4	21.3	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	2	0	112	0	1381	39	2018	902	792	1450	0
V/C Ratio(X)	0.00	0.00	0.00	0.79	0.00	0.09	0.57	0.57	0.04	0.90	0.59	0.00
Avail Cap(c_a), veh/h	0	546	0	390	0	3566	618	2120	948	1780	1450	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	53.0	0.0	29.2	55.6	15.3	10.6	42.8	4.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.5	0.0	0.0	4.8	0.2	0.0	1.6	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.9	0.0	0.9	0.7	11.3	0.5	11.2	10.9	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	57.5	0.0	29.2	60.5	15.5	10.6	44.4	5.3	0.0
LnGrp LOS				E		C	E	B	B	D	A	
Approach Vol, veh/h		0			206			1202			1571	
Approach Delay, s/veh		0.0			41.3			16.2			23.1	
Approach LOS					D			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s		11.9	31.3	71.6	11.9	0.0	7.1	95.8				
Change Period (Y+Rc), s		4.6	4.6	5.5	4.6	* 4.6	4.6	* 5.5				
Max Green Setting (Gmax), s		63.1	60.0	69.5	25.5	* 34	40.4	* 90				
Max Q Clear Time (g_c+I1), s		4.2	25.4	25.6	7.7	0.0	3.4	23.3				
Green Ext Time (p_c), s		1.0	1.3	40.5	0.1	0.0	0.0	60.3				
Intersection Summary												
HCM 2010 Ctrl Delay			21.6									
HCM 2010 LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

User approved changes to right turn type.


















HCM 2010 Signalized Intersection Summary
62: Bruceville Rd & Whitelock Pkwy

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	360	360	120	240	510	120	200	800	80	130	920	580
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	391	391	97	261	554	88	217	870	45	141	1000	476
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	442	890	387	331	776	337	279	1567	686	197	1483	852
Arrive On Green	0.13	0.25	0.25	0.10	0.22	0.22	0.08	0.45	0.45	0.06	0.42	0.42
Sat Flow, veh/h	3408	3505	1524	3408	3505	1521	3408	3505	1535	3408	3505	1534
Grp Volume(v), veh/h	391	391	97	261	554	88	217	870	45	141	1000	476
Grp Sat Flow(s),veh/h/ln	1704	1752	1524	1704	1752	1521	1704	1752	1535	1704	1752	1534
Q Serve(g_s), s	17.3	14.4	7.8	11.5	22.4	7.3	9.6	28.0	2.6	6.2	35.4	30.9
Cycle Q Clear(g_c), s	17.3	14.4	7.8	11.5	22.4	7.3	9.6	28.0	2.6	6.2	35.4	30.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	442	890	387	331	776	337	279	1567	686	197	1483	852
V/C Ratio(X)	0.89	0.44	0.25	0.79	0.71	0.26	0.78	0.56	0.07	0.72	0.67	0.56
Avail Cap(c_a), veh/h	555	913	397	555	913	396	555	1598	700	555	1598	903
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.7	48.1	45.6	67.8	55.3	49.4	69.1	31.2	24.2	71.1	35.8	22.3
Incr Delay (d2), s/veh	11.7	0.1	0.1	1.6	1.6	0.2	1.8	0.2	0.0	1.8	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	7.0	3.3	5.5	11.0	3.1	4.6	13.6	1.1	3.0	17.2	13.1
LnGrp Delay(d),s/veh	77.4	48.2	45.8	69.4	56.8	49.5	70.9	31.4	24.2	72.9	36.5	22.6
LnGrp LOS	E	D	D	E	E	D	E	C	C	E	D	C
Approach Vol, veh/h		879			903			1132			1617	
Approach Delay, s/veh		60.9			59.8			38.7			35.6	
Approach LOS		E			E			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.9	70.3	25.5	38.9	15.2	74.0	20.5	43.9				
Change Period (Y+Rc), s	6.3	5.3	5.6	4.9	6.3	5.3	5.6	4.9				
Max Green Setting (Gmax), s	25.0	70.0	25.0	40.0	25.0	70.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	11.6	37.4	19.3	24.4	8.2	30.0	13.5	16.4				
Green Ext Time (p_c), s	1.0	27.6	0.6	6.8	0.6	32.7	1.4	8.4				
Intersection Summary												
HCM 2010 Ctrl Delay			46.1									
HCM 2010 LOS			D									













HCM 2010 Signalized Intersection Summary
63: Hood Franklin Rd & I-5 SB Ramps

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	110	30	0	130	90	0	0	0	1320	0	50
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1788	1900	0	1827	1900				1900	0	1845
Adj Flow Rate, veh/h	0	125	0	0	148	0				1500	0	57
Adj No. of Lanes	0	1	0	0	1	1				1	0	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	8	8	0	4	0				0	0	3
Cap, veh/h	0	172	0	0	175	155				1501	0	1300
Arrive On Green	0.00	0.10	0.00	0.00	0.10	0.00				0.83	0.00	0.83
Sat Flow, veh/h	0	1788	0	0	1827	1615				1810	0	1568
Grp Volume(v), veh/h	0	125	0	0	148	0				1500	0	57
Grp Sat Flow(s),veh/h/ln	0	1788	0	0	1827	1615				1810	0	1568
Q Serve(g_s), s	0.0	10.2	0.0	0.0	12.0	0.0				124.1	0.0	1.0
Cycle Q Clear(g_c), s	0.0	10.2	0.0	0.0	12.0	0.0				124.1	0.0	1.0
Prop In Lane	0.00		0.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	172	0	0	175	155				1501	0	1300
V/C Ratio(X)	0.00	0.73	0.00	0.00	0.84	0.00				1.00	0.00	0.04
Avail Cap(c_a), veh/h	0	172	0	0	175	155				1501	0	1300
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	65.9	0.0	0.0	66.7	0.0				12.8	0.0	2.3
Incr Delay (d2), s/veh	0.0	23.6	0.0	0.0	29.5	0.0				23.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.2	0.0	0.0	7.5	0.0				69.6	0.0	0.4
LnGrp Delay(d),s/veh	0.0	89.5	0.0	0.0	96.2	0.0				35.9	0.0	2.3
LnGrp LOS		F			F					D		A
Approach Vol, veh/h		125			148						1557	
Approach Delay, s/veh		89.5			96.2						34.7	
Approach LOS		F			F						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		20.0		130.0		20.0						
Change Period (Y+Rc), s		* 5.6		* 5.6		* 5.6						
Max Green Setting (Gmax), s		* 14		* 1.2E2		* 14						
Max Q Clear Time (g_c+I1), s		12.2		126.1		14.0						
Green Ext Time (p_c), s		0.3		0.0		0.1						
Intersection Summary												
HCM 2010 Ctrl Delay				43.4								
HCM 2010 LOS				D								
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
64: I-5 NB Ramps & Hood Franklin Rd














Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗		↑↑	↗	↘		↗			
Volume (veh/h)	0	1370	60	0	210	110	10	0	440	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1900	1863	0	1900	1881	1583	0	1881			
Adj Flow Rate, veh/h	0	1575	0	0	241	0	11	0	506			
Adj No. of Lanes	0	2	1	0	2	1	1	0	1			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	0	2	0	0	1	20	0	1			
Cap, veh/h	0	1714	752	0	1714	759	528	0	560			
Arrive On Green	0.00	0.47	0.00	0.00	0.47	0.00	0.35	0.00	0.35			
Sat Flow, veh/h	0	3705	1583	0	3705	1599	1508	0	1599			
Grp Volume(v), veh/h	0	1575	0	0	241	0	11	0	506			
Grp Sat Flow(s),veh/h/ln	0	1805	1583	0	1805	1599	1508	0	1599			
Q Serve(g_s), s	0.0	26.0	0.0	0.0	2.4	0.0	0.3	0.0	19.3			
Cycle Q Clear(g_c), s	0.0	26.0	0.0	0.0	2.4	0.0	0.3	0.0	19.3			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1714	752	0	1714	759	528	0	560			
V/C Ratio(X)	0.00	0.92	0.00	0.00	0.14	0.00	0.02	0.00	0.90			
Avail Cap(c_a), veh/h	0	1714	752	0	1714	759	669	0	709			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	15.7	0.0	0.0	9.5	0.0	13.6	0.0	19.8			
Incr Delay (d2), s/veh	0.0	9.4	0.0	0.0	0.2	0.0	0.0	0.0	12.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	15.2	0.0	0.0	1.2	0.0	0.1	0.0	10.4			
LnGrp Delay(d),s/veh	0.0	25.1	0.0	0.0	9.6	0.0	13.6	0.0	32.6			
LnGrp LOS		C			A		B		C			
Approach Vol, veh/h		1575			241			517				
Approach Delay, s/veh		25.1			9.6			32.2				
Approach LOS		C			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		36.0				36.0		28.0				
Change Period (Y+Rc), s		* 5.6				* 5.6		5.6				
Max Green Setting (Gmax), s		* 30				* 30		28.4				
Max Q Clear Time (g_c+I1), s		28.0				4.4		21.3				
Green Ext Time (p_c), s		2.0				14.0		1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			25.1									
HCM 2010 LOS			C									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM Signalized Intersection Capacity Analysis













65: Willard Pkwy & Bilby Rd North

Cumulative Conditions
Timing Plan: PM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 		
Volume (vph)	330	230	100	950	950	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6	5.6	4.6	5.7	5.7
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	0.99	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1752	1546	1752	3505	1845	1531
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1752	1546	1752	3505	1845	1531
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	371	258	112	1067	1067	135
RTOR Reduction (vph)	0	142	0	0	0	32
Lane Group Flow (vph)	371	116	112	1067	1067	103
Confl. Peds. (#/hr)						1
Confl. Bikes (#/hr)		2				
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	6		7 5	5 7 8	8	
Permitted Phases		6				8
Actuated Green, G (s)	34.1	34.1	18.8	99.8	75.4	75.4
Effective Green, g (s)	34.1	34.1	14.2	94.2	75.4	75.4
Actuated g/C Ratio	0.23	0.23	0.10	0.65	0.52	0.52
Clearance Time (s)	5.6	5.6			5.7	5.7
Vehicle Extension (s)	2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	411	363	171	2273	958	795
v/s Ratio Prot	c0.21		c0.06	0.30	c0.58	
v/s Ratio Perm		0.07				0.07
v/c Ratio	0.90	0.32	0.65	0.47	1.11	0.13
Uniform Delay, d1	53.9	45.9	63.1	12.9	34.9	18.0
Progression Factor	1.00	1.00	1.33	0.40	1.00	1.00
Incremental Delay, d2	22.1	0.2	6.0	0.0	65.6	0.0
Delay (s)	76.1	46.1	89.7	5.2	100.5	18.0
Level of Service	E	D	F	A	F	B
Approach Delay (s)	63.8			13.2	91.2	
Approach LOS	E			B	F	
Intersection Summary						
HCM 2000 Control Delay			54.9		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			1.01			
Actuated Cycle Length (s)			145.2		Sum of lost time (s)	22.9
Intersection Capacity Utilization			87.9%		ICU Level of Service	E
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
66: Willard Pkwy & Bilby Rd South

Cumulative Conditions
Timing Plan: PM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Volume (vph)	40	280	760	40	10	390	780
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	5.7			5.6	4.6
Lane Util. Factor	1.00	1.00	0.95			1.00	0.95
Frbp, ped/bikes	1.00	0.99	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.85	0.99			1.00	1.00
Flt Protected	0.95	1.00	1.00			0.95	1.00
Satd. Flow (prot)	1752	1547	3479			1752	3505
Flt Permitted	0.95	1.00	1.00			0.95	1.00
Satd. Flow (perm)	1752	1547	3479			1752	3505
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	43	301	817	43	11	419	839
RTOR Reduction (vph)	0	274	2	0	0	0	0
Lane Group Flow (vph)	43	27	858	0	0	430	839
Confl. Peds. (#/hr)		1					
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	NA		Prot	Prot	NA
Protected Phases	2		4		3 1	3 1	1 3 4
Permitted Phases		2					
Actuated Green, G (s)	13.1	13.1	68.4			45.4	119.4
Effective Green, g (s)	13.1	13.1	68.4			40.8	113.8
Actuated g/C Ratio	0.09	0.09	0.47			0.28	0.78
Clearance Time (s)	7.0	7.0	5.7				
Vehicle Extension (s)	2.0	2.0	2.0				
Lane Grp Cap (vph)	158	139	1638			492	2747
v/s Ratio Prot	c0.02		c0.25			c0.25	0.24
v/s Ratio Perm		0.02					
v/c Ratio	0.27	0.20	0.52			0.87	0.31
Uniform Delay, d1	61.6	61.2	27.0			49.7	4.5
Progression Factor	1.00	1.00	1.00			1.45	0.63
Incremental Delay, d2	0.3	0.3	0.1			4.4	0.0
Delay (s)	61.9	61.4	27.1			76.3	2.8
Level of Service	E	E	C			E	A
Approach Delay (s)	61.5		27.1				27.7
Approach LOS	E		C				C
Intersection Summary							
HCM 2000 Control Delay			32.2			HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.61				
Actuated Cycle Length (s)			145.2			Sum of lost time (s)	22.9
Intersection Capacity Utilization			76.8%			ICU Level of Service	D
Analysis Period (min)			15				
c Critical Lane Group							

























HCM 2010 Signalized Intersection Summary
67: Bruceville Rd & Bilby Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	310	80	120	40	170	80	210	830	60	40	770	340
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	337	87	81	43	185	84	228	902	65	43	837	310
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	2	2	1
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	379	579	492	115	243	207	207	1441	644	115	1146	513
Arrive On Green	0.22	0.31	0.31	0.03	0.13	0.13	0.12	0.41	0.41	0.03	0.33	0.33
Sat Flow, veh/h	1757	1845	1568	3408	1845	1568	1757	3505	1568	3408	3505	1568
Grp Volume(v), veh/h	337	87	81	43	185	84	228	902	65	43	837	310
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1704	1845	1568	1757	1752	1568	1704	1752	1568
Q Serve(g_s), s	19.7	3.6	4.0	1.3	10.3	5.2	12.5	21.6	2.7	1.3	22.4	17.6
Cycle Q Clear(g_c), s	19.7	3.6	4.0	1.3	10.3	5.2	12.5	21.6	2.7	1.3	22.4	17.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	379	579	492	115	243	207	207	1441	644	115	1146	513
V/C Ratio(X)	0.89	0.15	0.16	0.37	0.76	0.41	1.10	0.63	0.10	0.37	0.73	0.60
Avail Cap(c_a), veh/h	671	844	717	338	322	274	207	1441	644	241	1207	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	26.2	26.3	50.1	44.4	42.2	46.7	24.8	19.2	50.1	31.5	29.9
Incr Delay (d2), s/veh	7.3	0.0	0.1	2.0	4.9	0.5	92.0	1.1	0.1	2.0	2.6	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	1.8	1.7	0.6	5.6	2.3	11.3	10.6	1.2	0.6	11.2	8.0
LnGrp Delay(d),s/veh	47.6	26.2	26.4	52.1	49.3	42.7	138.7	25.9	19.3	52.1	34.1	32.4
LnGrp LOS	D	C	C	D	D	D	F	C	B	D	C	C
Approach Vol, veh/h		505			312			1195			1190	
Approach Delay, s/veh		40.5			47.9			47.0			34.3	
Approach LOS		D			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	40.2	28.4	19.5	9.1	49.1	9.1	38.7				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	12.5	36.5	40.5	18.5	7.5	41.5	10.5	48.5				
Max Q Clear Time (g_c+I1), s	14.5	24.4	21.7	12.3	3.3	23.6	3.3	6.0				
Green Ext Time (p_c), s	0.0	10.3	1.1	1.7	0.0	17.7	0.0	4.1				
Intersection Summary												
HCM 2010 Ctrl Delay			41.4									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
68: Kammerer Rd & Bruceville Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	1490	240	510	1680	490	220	640	400	310	660	140
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1863	1900	1863	1900	1863	1900	1900	1881	1776	1863
Adj Flow Rate, veh/h	109	1620	261	548	1826	527	239	688	430	333	710	152
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	0	2	0	2	0	0	1	7	2
Cap, veh/h	153	1504	468	480	1964	624	294	1013	453	388	1034	485
Arrive On Green	0.05	0.30	0.30	0.14	0.39	0.39	0.09	0.28	0.28	0.11	0.31	0.31
Sat Flow, veh/h	3304	5085	1583	3510	5085	1615	3442	3610	1615	3476	3374	1583
Grp Volume(v), veh/h	109	1620	261	548	1826	527	239	688	430	333	710	152
Grp Sat Flow(s),veh/h/ln	1652	1695	1583	1755	1695	1615	1721	1805	1615	1738	1687	1583
Q Serve(g_s), s	4.7	42.8	20.1	19.8	49.8	43.0	9.9	24.5	37.8	13.6	26.8	10.7
Cycle Q Clear(g_c), s	4.7	42.8	20.1	19.8	49.8	43.0	9.9	24.5	37.8	13.6	26.8	10.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	153	1504	468	480	1964	624	294	1013	453	388	1034	485
V/C Ratio(X)	0.71	1.08	0.56	1.14	0.93	0.84	0.81	0.68	0.95	0.86	0.69	0.31
Avail Cap(c_a), veh/h	224	1504	468	480	1964	624	511	1035	463	492	1034	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.1	51.0	43.0	62.5	42.5	40.5	65.0	46.3	51.1	63.2	44.1	38.5
Incr Delay (d2), s/veh	6.0	47.1	4.7	85.9	9.4	13.2	5.4	1.8	29.0	11.8	1.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	26.5	9.4	15.3	25.0	21.4	4.9	12.5	20.5	7.2	12.7	4.7
LnGrp Delay(d),s/veh	74.1	98.1	47.7	148.4	51.9	53.7	70.4	48.1	80.1	75.0	46.0	38.9
LnGrp LOS	E	F	D	F	D	D	E	D	F	E	D	D
Approach Vol, veh/h		1990			2901			1357			1195	
Approach Delay, s/veh		90.2			70.5			62.1			53.2	
Approach LOS		F			E			E			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	49.0	18.9	50.9	12.9	62.1	22.6	47.1				
Change Period (Y+Rc), s	* 6.2	* 6.2	6.5	6.5	* 6.2	* 6.2	6.5	6.5				
Max Green Setting (Gmax), s	* 20	* 43	21.5	40.5	* 9.8	* 53	20.5	41.5				
Max Q Clear Time (g_c+I1), s	21.8	44.8	11.9	28.8	6.7	51.8	15.6	39.8				
Green Ext Time (p_c), s	0.0	0.0	0.5	7.8	0.1	1.0	0.5	0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			71.4									
HCM 2010 LOS			E									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
PM Peak Hour

Intersection 69 Lent Ranch Pkwy/Kammerer Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	20	19	95.9%	25.0	10.5	C
	Through						
	Right Turn	540	526	97.3%	29.0	10.8	C
	Subtotal	560	545	97.3%	29.0	10.5	C
EB	Left Turn	450	432	95.9%	69.6	12.0	E
	Through	2,260	2,277	100.8%	25.6	2.2	C
	Right Turn						
	Subtotal	2,710	2,709	100.0%	32.7	3.7	C
WB	Left Turn						
	Through	2,150	1,754	81.6%	45.3	5.4	D
	Right Turn	20	18	92.1%	11.3	3.8	B
	Subtotal	2,170	1,772	81.7%	45.0	5.4	D
Total		5,440	5,026	92.4%	36.7	3.6	D

Intersection 70 Promenade Pkwy/Kammerer Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	430	448	104.1%	57.6	2.6	E
	Through	160	155	97.1%	61.0	10.1	E
	Right Turn	300	260	86.7%	37.4	27.9	D
	Subtotal	890	863	97.0%	51.3	9.9	D
SB	Left Turn	1,410	1,065	75.5%	141.8	27.5	F
	Through	310	302	97.3%	58.1	8.4	E
	Right Turn	20	19	95.9%	15.1	7.8	B
	Subtotal	1,740	1,386	79.7%	121.7	20.7	F
EB	Left Turn	20	17	86.5%	81.1	20.9	F
	Through	1,650	1,442	87.4%	87.3	12.4	F
	Right Turn	630	586	93.0%	62.3	7.0	E
	Subtotal	2,300	2,045	88.9%	80.1	10.4	F
NW	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		4,930	4,295	87.1%	87.8	12.1	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
PM Peak Hour

Intersection 71 SR 99 SB Ramps/Kammerer Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	820	617	75.2%	112.7	32.6	F
	Through						
	Right Turn	590	541	91.8%	56.2	18.5	E
	Subtotal	1,410	1,158	82.2%	86.3	26.0	F
EB	Left Turn						
	Through	3,120	2,439	78.2%	51.7	7.4	D
	Right Turn	240	220	91.8%	3.8	0.5	A
	Subtotal	3,360	2,660	79.2%	47.8	6.9	D
WB	Left Turn						
	Through	2,730	1,965	72.0%	25.4	3.3	C
	Right Turn	770	490	63.7%	8.2	0.7	A
	Subtotal	3,500	2,455	70.2%	21.9	2.9	C
Total		8,270	6,274	75.9%	44.6	6.3	D

Intersection 72 SR 99 NB Ramps/Grant Line Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	470	452	96.2%	37.4	3.3	D
	Through						
	Right Turn	740	714	96.5%	51.1	7.1	D
	Subtotal	1,210	1,166	96.4%	45.7	5.0	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	3,410	2,494	73.1%	74.5	6.7	E
	Right Turn	530	447	84.4%	31.5	9.3	C
	Subtotal	3,940	2,941	74.6%	67.9	7.0	E
WB	Left Turn						
	Through	3,030	2,007	66.2%	10.1	0.6	B
	Right Turn	1,070	716	66.9%	6.0	0.5	A
	Subtotal	4,100	2,722	66.4%	9.0	0.5	A
Total		9,250	6,830	73.8%	40.7	2.7	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Elk Grove General Plan Update
Cumulative Conditions
PM Peak Hour

Intersection 73

E Stockton Blvd/Grant Line Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	300	206	68.7%	253.5	31.1	F
	Through	70	52	74.1%	251.8	49.1	F
	Right Turn	90	67	74.4%	258.0	46.4	F
	Subtotal	460	325	70.6%	253.6	35.5	F
SB	Left Turn	320	243	75.9%	81.2	12.4	F
	Through	40	32	79.9%	110.4	35.1	F
	Right Turn	690	523	75.9%	59.6	4.4	E
	Subtotal	1,050	798	76.0%	68.6	5.5	E
EB	Left Turn	680	253	37.2%	359.0	18.3	F
	Through	3,280	2,772	84.5%	58.7	5.7	E
	Right Turn	190	168	88.3%	12.3	1.7	B
	Subtotal	4,150	3,193	76.9%	79.9	5.2	E
WB	Left Turn	90	59	65.6%	245.1	29.8	F
	Through	3,080	1,980	64.3%	271.8	11.4	F
	Right Turn	250	135	54.0%	291.4	23.6	F
	Subtotal	3,420	2,174	63.6%	272.2	12.0	F
Total		9,080	6,489	71.5%	151.5	3.2	F













HCM 2010 Signalized Intersection Summary
74: Grant Line Rd & Waterman Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	830	2420	480	130	1760	10	890	210	260	30	150	780
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1845	1900	1900	1827	1900	1900	1900	1900	1667	1900	1863
Adj Flow Rate, veh/h	902	2630	522	141	1913	8	967	228	283	33	163	596
Adj No. of Lanes	2	4	1	2	4	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	7	3	0	0	4	0	0	0	0	14	0	2
Cap, veh/h	836	3106	1173	190	1816	467	832	856	383	160	187	486
Arrive On Green	0.25	0.49	0.49	0.05	0.29	0.29	0.24	0.24	0.24	0.05	0.05	0.05
Sat Flow, veh/h	3281	6346	1615	3510	6285	1615	3510	3610	1615	3079	3610	1583
Grp Volume(v), veh/h	902	2630	522	141	1913	8	967	228	283	33	163	596
Grp Sat Flow(s),veh/h/ln	1640	1586	1615	1755	1571	1615	1755	1805	1615	1540	1805	1583
Q Serve(g_s), s	34.4	48.8	17.6	5.3	39.0	0.5	32.0	6.9	21.9	1.4	6.1	7.0
Cycle Q Clear(g_c), s	34.4	48.8	17.6	5.3	39.0	0.5	32.0	6.9	21.9	1.4	6.1	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	836	3106	1173	190	1816	467	832	856	383	160	187	486
V/C Ratio(X)	1.08	0.85	0.44	0.74	1.05	0.02	1.16	0.27	0.74	0.21	0.87	1.23
Avail Cap(c_a), veh/h	836	3106	1173	203	1816	467	832	856	383	160	187	486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	30.0	7.5	62.9	48.0	34.3	51.5	41.9	47.6	61.3	63.6	46.8
Incr Delay (d2), s/veh	54.7	3.1	1.2	10.9	36.9	0.1	86.1	0.1	6.6	0.2	31.9	119.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.9	22.0	8.2	2.9	21.5	0.2	25.4	3.5	10.4	0.6	3.9	34.1
LnGrp Delay(d),s/veh	105.0	33.1	8.7	73.8	84.9	34.4	137.6	42.0	54.2	61.6	95.5	166.3
LnGrp LOS	F	C	A	E	F	C	F	D	D	E	F	F
Approach Vol, veh/h		4054			2062			1478			792	
Approach Delay, s/veh		45.9			83.9			106.9			147.4	
Approach LOS		D			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	39.0	45.0	13.0	38.0	11.9	72.1	38.0	13.0				
Change Period (Y+Rc), s	4.6	6.0	6.0	6.0	4.6	6.0	6.0	6.0				
Max Green Setting (Gmax), s	34.4	39.0	7.0	32.0	7.8	65.6	32.0	7.0				
Max Q Clear Time (g_c+I1), s	36.4	41.0	3.4	23.9	7.3	50.8	34.0	9.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.3	0.0	14.1	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			75.6									
HCM 2010 LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
75: Grant Line Rd & Mosher Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Volume (veh/h)	90	2620	1810	90	120	90		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1881	1845	1863	1845	1837	1900		
Adj Flow Rate, veh/h	93	2701	1866	93	124	93		
Adj No. of Lanes	1	4	4	1	0	0		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97		
Percent Heavy Veh, %	1	3	2	3	0	0		
Cap, veh/h	116	4597	3862	945	146	109		
Arrive On Green	0.06	0.72	0.60	0.60	0.15	0.15		
Sat Flow, veh/h	1792	6604	6669	1568	947	710		
Grp Volume(v), veh/h	93	2701	1866	93	218	0		
Grp Sat Flow(s),veh/h/ln	1792	1586	1602	1568	1664	0		
Q Serve(g_s), s	5.0	20.1	16.1	2.5	12.6	0.0		
Cycle Q Clear(g_c), s	5.0	20.1	16.1	2.5	12.6	0.0		
Prop In Lane	1.00			1.00	0.57	0.43		
Lane Grp Cap(c), veh/h	116	4597	3862	945	256	0		
V/C Ratio(X)	0.80	0.59	0.48	0.10	0.85	0.00		
Avail Cap(c_a), veh/h	116	4597	3862	945	702	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	45.5	6.5	11.0	8.3	40.6	0.0		
Incr Delay (d2), s/veh	31.4	0.6	0.4	0.2	7.8	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.5	8.8	7.1	1.1	6.3	0.0		
LnGrp Delay(d),s/veh	76.8	7.1	11.4	8.5	48.4	0.0		
LnGrp LOS	E	A	B	A	D			
Approach Vol, veh/h		2794	1959		218			
Approach Delay, s/veh		9.4	11.3		48.4			
Approach LOS		A	B		D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		77.0		21.6	12.0	65.0		
Change Period (Y+Rc), s		* 5.6		6.4	* 5.6	* 5.6		
Max Green Setting (Gmax), s		* 71		41.6	* 6.4	* 59		
Max Q Clear Time (g_c+I1), s		22.1		14.6	7.0	18.1		
Green Ext Time (p_c), s		47.4		0.6	0.0	40.0		
Intersection Summary								
HCM 2010 Ctrl Delay			11.8					
HCM 2010 LOS			B					
Notes								
User approved volume balancing among the lanes for turning movement.								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

























HCM 2010 Signalized Intersection Summary
76: Bradshaw Rd & Grant Line Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1020	800	430	60	670	20	250	250	40	20	400	910
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1845	1863	1863	1845	1900	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	1074	842	467	65	705	21	272	272	43	21	435	958
Adj No. of Lanes	2	3	1	1	4	1	1	1	1	1	2	1
Peak Hour Factor	0.95	0.95	0.92	0.92	0.95	0.95	0.92	0.92	0.92	0.95	0.92	0.95
Percent Heavy Veh, %	4	3	2	2	3	0	2	2	2	0	2	2
Cap, veh/h	513	1902	598	82	1726	439	136	721	613	35	1168	763
Arrive On Green	0.15	0.38	0.38	0.05	0.27	0.27	0.08	0.39	0.39	0.02	0.33	0.33
Sat Flow, veh/h	3375	5036	1583	1774	6346	1615	1774	1863	1583	1810	3539	1583
Grp Volume(v), veh/h	1074	842	467	65	705	21	272	272	43	21	435	958
Grp Sat Flow(s),veh/h/ln	1688	1679	1583	1774	1586	1615	1774	1863	1583	1810	1770	1583
Q Serve(g_s), s	22.8	18.7	39.1	5.4	13.6	1.4	11.5	15.7	2.6	1.7	14.1	49.5
Cycle Q Clear(g_c), s	22.8	18.7	39.1	5.4	13.6	1.4	11.5	15.7	2.6	1.7	14.1	49.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	513	1902	598	82	1726	439	136	721	613	35	1168	763
V/C Ratio(X)	2.09	0.44	0.78	0.79	0.41	0.05	2.00	0.38	0.07	0.60	0.37	1.26
Avail Cap(c_a), veh/h	513	1902	598	104	1726	439	136	721	613	78	1168	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.6	34.9	41.2	70.8	44.7	40.3	69.3	33.0	28.9	73.0	38.4	38.8
Incr Delay (d2), s/veh	498.6	0.7	9.8	26.5	0.7	0.2	475.0	0.3	0.0	15.1	0.2	125.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	46.1	8.8	18.7	3.3	6.1	0.7	23.6	8.1	1.1	1.0	6.9	58.1
LnGrp Delay(d),s/veh	562.2	35.6	51.0	97.3	45.4	40.5	544.3	33.3	29.0	88.1	38.6	164.3
LnGrp LOS	F	D	D	F	D	D	F	C	C	F	D	F
Approach Vol, veh/h		2383			791			587			1414	
Approach Delay, s/veh		276.0			49.6			269.7			124.5	
Approach LOS		F			D			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.2	62.8	18.0	56.0	29.0	47.0	9.4	64.6				
Change Period (Y+Rc), s	* 6.2	* 6.2	6.5	6.5	* 6.2	* 6.2	6.5	6.5				
Max Green Setting (Gmax), s	* 8.8	* 55	11.5	49.5	* 23	* 41	6.5	54.5				
Max Q Clear Time (g_c+I1), s	7.4	41.1	13.5	51.5	24.8	15.6	3.7	17.7				
Green Ext Time (p_c), s	0.0	8.9	0.0	0.0	0.0	12.9	0.0	10.6				
Intersection Summary												
HCM 2010 Ctrl Delay			199.3									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
77: Whitelock Pkwy & Lotz Pkwy

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	370	90	1010	480	400	150	660	1010	260	520	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1863	1788	1863	1863	1788	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	11	402	98	1098	522	435	163	717	1098	283	565	22
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	996	445	731	1736	776	141	1539	830	147	1071	843
Arrive On Green	0.01	0.28	0.28	0.22	0.49	0.49	0.04	0.30	0.30	0.04	0.30	0.30
Sat Flow, veh/h	3304	3539	1583	3304	3539	1583	3304	5085	1583	3442	3539	2787
Grp Volume(v), veh/h	11	402	98	1098	522	435	163	717	1098	283	565	22
Grp Sat Flow(s),veh/h/ln	1652	1770	1583	1652	1770	1583	1652	1695	1583	1721	1770	1393
Q Serve(g_s), s	0.5	13.8	7.1	33.2	13.2	29.0	6.4	17.2	45.4	6.4	19.9	0.8
Cycle Q Clear(g_c), s	0.5	13.8	7.1	33.2	13.2	29.0	6.4	17.2	45.4	6.4	19.9	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	40	996	445	731	1736	776	141	1539	830	147	1071	843
V/C Ratio(X)	0.27	0.40	0.22	1.50	0.30	0.56	1.16	0.47	1.32	1.93	0.53	0.03
Avail Cap(c_a), veh/h	137	996	445	731	1736	776	141	1539	830	147	1071	843
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.4	43.7	41.3	58.4	22.8	26.9	71.8	42.5	35.7	71.8	43.4	36.8
Incr Delay (d2), s/veh	3.5	1.2	1.1	232.8	0.4	2.9	123.9	0.2	153.9	441.3	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	6.9	3.3	38.8	6.6	13.2	5.3	8.1	69.7	12.0	9.8	0.3
LnGrp Delay(d),s/veh	77.0	44.9	42.4	291.2	23.3	29.8	195.7	42.7	189.6	513.1	43.9	36.8
LnGrp LOS	E	D	D	F	C	C	F	D	F	F	D	D
Approach Vol, veh/h		511			2055			1978			870	
Approach Delay, s/veh		45.1			167.8			136.9			196.3	
Approach LOS		D			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	39.0	48.0	12.0	51.0	7.6	79.4	12.0	51.0				
Change Period (Y+Rc), s	* 5.8	* 5.8	5.6	5.6	* 5.8	* 5.8	5.6	5.6				
Max Green Setting (Gmax), s	* 33	* 42	6.4	45.4	* 6.2	* 69	6.4	45.4				
Max Q Clear Time (g_c+I1), s	35.2	15.8	8.4	21.9	2.5	31.0	8.4	47.4				
Green Ext Time (p_c), s	0.0	8.8	0.0	16.1	0.0	9.7	0.0	0.0				

Intersection Summary























HCM 2010 Ctrl Delay	149.5
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

























HCM 2010 Signalized Intersection Summary
78: Poppy Ridge Rd & Big Horn Blvd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	50	20	20	60	90	20	1130	20	80	1110	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1900	1788	1863	1900	1788	1863	1863	1788	1863	1863
Adj Flow Rate, veh/h	65	54	22	22	65	98	22	1228	22	87	1207	109
Adj No. of Lanes	1	1	0	1	1	0	2	2	1	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	86	207	84	42	93	140	82	1635	731	190	1751	783
Arrive On Green	0.05	0.16	0.16	0.02	0.14	0.14	0.02	0.46	0.46	0.06	0.49	0.49
Sat Flow, veh/h	1703	1259	513	1703	672	1013	3304	3539	1583	3304	3539	1583
Grp Volume(v), veh/h	65	0	76	22	0	163	22	1228	22	87	1207	109
Grp Sat Flow(s),veh/h/ln	1703	0	1772	1703	0	1684	1652	1770	1583	1652	1770	1583
Q Serve(g_s), s	2.7	0.0	2.7	0.9	0.0	6.6	0.5	20.4	0.5	1.8	18.7	2.7
Cycle Q Clear(g_c), s	2.7	0.0	2.7	0.9	0.0	6.6	0.5	20.4	0.5	1.8	18.7	2.7
Prop In Lane	1.00		0.29	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	86	0	292	42	0	233	82	1635	731	190	1751	783
V/C Ratio(X)	0.75	0.00	0.26	0.52	0.00	0.70	0.27	0.75	0.03	0.46	0.69	0.14
Avail Cap(c_a), veh/h	1278	0	1925	157	0	721	324	1635	731	324	1751	783
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	0.0	26.0	34.4	0.0	29.3	34.2	15.8	10.5	32.6	13.8	9.8
Incr Delay (d2), s/veh	12.3	0.0	0.5	9.6	0.0	3.8	1.7	3.2	0.1	1.7	2.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	1.3	0.5	0.0	3.3	0.2	10.6	0.3	0.9	9.6	1.2
LnGrp Delay(d),s/veh	45.8	0.0	26.5	44.0	0.0	33.1	35.9	19.1	10.6	34.3	16.1	10.2
LnGrp LOS	D		C	D		C	D	B	B	C	B	B
Approach Vol, veh/h		141			185			1272			1403	
Approach Delay, s/veh		35.4			34.4			19.2			16.8	
Approach LOS		D			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	38.0	7.2	17.2	6.8	40.3	9.0	15.3				
Change Period (Y+Rc), s	* 5	* 5	5.4	5.4	* 5	* 5	5.4	5.4				
Max Green Setting (Gmax), s	* 7	* 33	6.6	77.6	* 7	* 33	53.6	30.6				
Max Q Clear Time (g_c+I1), s	3.8	22.4	2.9	4.7	2.5	20.7	4.7	8.6				
Green Ext Time (p_c), s	0.1	9.2	0.0	1.6	0.0	10.6	0.2	1.4				
Intersection Summary												
HCM 2010 Ctrl Delay			19.8									
HCM 2010 LOS			B									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
79: Lotz Pkwy & Poppy Ridge Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	70	40	20	80	520	50	1240	10	440	1130	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1863	1788	1863	1863	1788	1863	1863	1788	1863	1863
Adj Flow Rate, veh/h	22	76	43	22	87	565	54	1348	11	478	1228	22
Adj No. of Lanes	1	1	1	1	1	1	2	2	1	2	3	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	35	556	473	35	556	473	104	1245	557	531	2447	762
Arrive On Green	0.02	0.30	0.30	0.02	0.30	0.30	0.03	0.35	0.35	0.16	0.48	0.48
Sat Flow, veh/h	1703	1863	1583	1703	1863	1583	3304	3539	1583	3304	5085	1583
Grp Volume(v), veh/h	22	76	43	22	87	565	54	1348	11	478	1228	22
Grp Sat Flow(s),veh/h/ln	1703	1863	1583	1703	1863	1583	1652	1770	1583	1652	1695	1583
Q Serve(g_s), s	1.8	4.2	2.7	1.8	4.8	41.8	2.3	49.3	0.6	19.9	23.1	1.0
Cycle Q Clear(g_c), s	1.8	4.2	2.7	1.8	4.8	41.8	2.3	49.3	0.6	19.9	23.1	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	35	556	473	35	556	473	104	1245	557	531	2447	762
V/C Ratio(X)	0.63	0.14	0.09	0.63	0.16	1.20	0.52	1.08	0.02	0.90	0.50	0.03
Avail Cap(c_a), veh/h	71	556	473	71	556	473	151	1245	557	599	2447	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.1	35.9	35.4	68.1	36.2	49.1	66.8	45.4	29.6	57.7	24.8	19.1
Incr Delay (d2), s/veh	17.1	0.1	0.1	17.1	0.1	107.2	4.0	51.1	0.1	15.4	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.2	1.2	1.0	2.5	32.3	1.1	32.9	0.3	10.2	11.0	0.5
LnGrp Delay(d),s/veh	85.2	36.0	35.5	85.2	36.3	156.3	70.8	96.5	29.7	73.1	25.6	19.2
LnGrp LOS	F	D	D	F	D	F	E	F	C	E	C	B
Approach Vol, veh/h		141			674			1413			1728	
Approach Delay, s/veh		43.6			138.5			95.0			38.6	
Approach LOS		D			F			F			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	28.1	54.9	9.1	48.0	10.0	73.0	9.1	48.0				
Change Period (Y+Rc), s	5.6	5.6	* 6.2	* 6.2	5.6	5.6	* 6.2	* 6.2				
Max Green Setting (Gmax), s	25.4	48.4	* 5.8	* 42	6.4	67.4	* 5.8	* 42				
Max Q Clear Time (g_c+I1), s	21.9	51.3	3.8	6.2	4.3	25.1	3.8	43.8				
Green Ext Time (p_c), s	0.6	0.0	0.0	3.5	0.0	30.0	0.0	0.0				

Intersection Summary

























HCM 2010 Ctrl Delay 76.0
HCM 2010 LOS E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

























HCM 2010 Signalized Intersection Summary
80: Bilby Rd & Big Horn Blvd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	60	100	90	120	150	150	940	60	80	850	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1863	1788	1863	1863	1788	1863	1863	1788	1863	1863
Adj Flow Rate, veh/h	76	65	109	98	130	163	163	1022	65	87	924	98
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	1214	543	154	1224	548	226	1216	544	150	1135	508
Arrive On Green	0.04	0.34	0.34	0.05	0.35	0.35	0.07	0.34	0.34	0.05	0.32	0.32
Sat Flow, veh/h	3304	3539	1583	3304	3539	1583	3304	3539	1583	3304	3539	1583
Grp Volume(v), veh/h	76	65	109	98	130	163	163	1022	65	87	924	98
Grp Sat Flow(s),veh/h/ln	1652	1770	1583	1652	1770	1583	1652	1770	1583	1652	1770	1583
Q Serve(g_s), s	2.3	1.2	4.9	2.9	2.5	7.5	4.8	26.7	2.8	2.6	24.1	4.5
Cycle Q Clear(g_c), s	2.3	1.2	4.9	2.9	2.5	7.5	4.8	26.7	2.8	2.6	24.1	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	1214	543	154	1224	548	226	1216	544	150	1135	508
V/C Ratio(X)	0.52	0.05	0.20	0.64	0.11	0.30	0.72	0.84	0.12	0.58	0.81	0.19
Avail Cap(c_a), veh/h	211	1214	543	211	1224	548	280	1253	561	214	1182	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	22.0	23.2	47.0	22.3	23.9	45.8	30.4	22.5	46.9	31.3	24.7
Incr Delay (d2), s/veh	2.9	0.1	0.8	4.3	0.2	1.4	6.8	5.2	0.1	3.5	4.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.6	2.2	1.4	1.3	3.5	2.4	13.9	1.2	1.3	12.4	2.0
LnGrp Delay(d),s/veh	49.8	22.1	24.1	51.3	22.4	25.3	52.6	35.6	22.6	50.4	35.7	24.9
LnGrp LOS	D	C	C	D	C	C	D	D	C	D	D	C
Approach Vol, veh/h		250			391			1250			1109	
Approach Delay, s/veh		31.4			30.9			37.1			35.9	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	40.0	12.3	37.6	10.0	40.3	10.1	39.9				
Change Period (Y+Rc), s	5.6	5.6	* 5.5	* 5.5	5.6	5.6	* 5.5	* 5.5				
Max Green Setting (Gmax), s	6.4	34.4	* 8.5	* 34	6.4	34.4	* 6.5	* 36				
Max Q Clear Time (g_c+I1), s	4.9	6.9	6.8	26.1	4.3	9.5	4.6	28.7				
Green Ext Time (p_c), s	0.0	2.1	0.1	6.1	0.0	2.1	0.0	5.6				
Intersection Summary												
HCM 2010 Ctrl Delay			35.4									
HCM 2010 LOS			D									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
81: Lotz Pkwy & Bilby Rd

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	250	270	10	30	180	80	10	580	30	90	650	130
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1863	1788	1863	1863	1788	1863	1863	1788	1863	1863
Adj Flow Rate, veh/h	272	293	11	33	196	87	11	630	33	98	707	141
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	350	718	321	87	436	195	36	1529	684	162	1664	744
Arrive On Green	0.11	0.20	0.20	0.03	0.12	0.12	0.01	0.43	0.43	0.05	0.47	0.47
Sat Flow, veh/h	3304	3539	1583	3304	3539	1583	3304	3539	1583	3304	3539	1583
Grp Volume(v), veh/h	272	293	11	33	196	87	11	630	33	98	707	141
Grp Sat Flow(s),veh/h/ln	1652	1770	1583	1652	1770	1583	1652	1770	1583	1652	1770	1583
Q Serve(g_s), s	6.2	5.6	0.4	0.8	4.0	3.9	0.3	9.5	0.9	2.2	10.2	4.0
Cycle Q Clear(g_c), s	6.2	5.6	0.4	0.8	4.0	3.9	0.3	9.5	0.9	2.2	10.2	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	350	718	321	87	436	195	36	1529	684	162	1664	744
V/C Ratio(X)	0.78	0.41	0.03	0.38	0.45	0.45	0.31	0.41	0.05	0.61	0.42	0.19
Avail Cap(c_a), veh/h	359	1621	725	274	1529	684	274	1529	684	316	1664	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	26.8	24.7	37.0	31.5	31.4	37.9	15.2	12.7	36.0	13.6	11.9
Incr Delay (d2), s/veh	10.1	0.4	0.0	2.7	0.7	1.6	4.7	0.8	0.1	3.6	0.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	2.8	0.2	0.4	2.0	1.8	0.1	4.8	0.4	1.1	5.1	1.8
LnGrp Delay(d),s/veh	43.7	27.1	24.8	39.7	32.2	33.0	42.6	16.0	12.9	39.6	14.4	12.5
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		576			316			674			946	
Approach Delay, s/veh		34.9			33.2			16.3			16.7	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	21.3	6.4	41.9	13.8	15.1	9.4	39.0				
Change Period (Y+Rc), s	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6				
Max Green Setting (Gmax), s	6.4	35.4	6.4	34.4	8.4	33.4	7.4	33.4				
Max Q Clear Time (g_c+I1), s	2.8	7.6	2.3	12.2	8.2	6.0	4.2	11.5				
Green Ext Time (p_c), s	0.0	3.6	0.0	10.3	0.0	3.5	0.1	10.2				
Intersection Summary												
HCM 2010 Ctrl Delay			22.8									
HCM 2010 LOS			C									

























HCM 2010 Signalized Intersection Summary
 82: Kammerer Rd & Big Horn Blvd

Cumulative Conditions
 Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	240	1540	290	410	1730	330	300	540	420	400	600	300
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1863	1788	1863	1863	1788	1863	1863	1788	1863	1863
Adj Flow Rate, veh/h	261	1674	315	446	1880	359	326	587	457	435	652	326
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	305	1974	615	349	2042	636	242	991	443	248	991	443
Arrive On Green	0.09	0.39	0.39	0.11	0.40	0.40	0.07	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	3304	5085	1583	3304	5085	1583	3304	3539	1583	3304	3539	1583
Grp Volume(v), veh/h	261	1674	315	446	1880	359	326	587	457	435	652	326
Grp Sat Flow(s),veh/h/ln	1652	1695	1583	1652	1695	1583	1652	1770	1583	1652	1770	1583
Q Serve(g_s), s	11.3	43.5	22.0	15.3	50.9	25.4	10.6	20.8	40.6	10.9	23.6	27.1
Cycle Q Clear(g_c), s	11.3	43.5	22.0	15.3	50.9	25.4	10.6	20.8	40.6	10.9	23.6	27.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	305	1974	615	349	2042	636	242	991	443	248	991	443
V/C Ratio(X)	0.86	0.85	0.51	1.28	0.92	0.56	1.35	0.59	1.03	1.75	0.66	0.74
Avail Cap(c_a), veh/h	326	1974	615	349	2042	636	242	991	443	248	998	447
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.9	40.4	33.9	64.8	41.2	33.6	67.2	45.1	52.2	67.1	46.1	47.3
Incr Delay (d2), s/veh	18.7	4.7	3.0	146.0	8.3	3.6	182.2	0.9	50.9	354.3	1.6	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	21.2	10.1	14.0	25.4	11.8	10.9	10.2	24.0	17.2	11.7	12.6
LnGrp Delay(d),s/veh	83.6	45.2	36.9	210.9	49.5	37.2	249.4	46.0	103.1	421.3	47.6	53.5
LnGrp LOS	F	D	D	F	D	D	F	D	F	F	D	D
Approach Vol, veh/h		2250			2685			1370			1413	
Approach Delay, s/veh		48.5			74.7			113.4			164.0	
Approach LOS		D			E			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.0	62.0	16.0	46.0	19.1	63.9	16.0	46.0				
Change Period (Y+Rc), s	5.7	5.7	* 5.4	* 5.4	5.7	5.7	* 5.1	* 5.4				
Max Green Setting (Gmax), s	15.3	56.3	* 11	* 41	14.3	57.3	* 11	* 41				
Max Q Clear Time (g_c+I1), s	17.3	45.5	12.6	29.1	13.3	52.9	12.9	42.6				
Green Ext Time (p_c), s	0.0	10.5	0.0	7.8	0.1	4.3	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			90.3									
HCM 2010 LOS			F									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary
83: Kammerer Rd & Lotz Pkwy

Cumulative Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	170	2000	510	460	1930	110	450	510	430	190	590	210
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1863	1863	1788	1863	1863	1788	1863	1863	1788	1863	1863
Adj Flow Rate, veh/h	185	2174	554	500	2098	120	489	554	467	207	641	228
Adj No. of Lanes	2	4	1	2	4	1	2	2	1	2	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	227	2039	504	444	2459	608	439	1100	492	253	905	405
Arrive On Green	0.07	0.32	0.32	0.13	0.38	0.38	0.13	0.31	0.31	0.08	0.26	0.26
Sat Flow, veh/h	3304	6408	1583	3304	6408	1583	3304	3539	1583	3304	3539	1583
Grp Volume(v), veh/h	185	2174	554	500	2098	120	489	554	467	207	641	228
Grp Sat Flow(s),veh/h/ln	1652	1602	1583	1652	1602	1583	1652	1770	1583	1652	1770	1583
Q Serve(g_s), s	8.1	46.9	46.9	19.8	44.2	7.4	19.6	18.8	42.5	9.1	24.3	18.5
Cycle Q Clear(g_c), s	8.1	46.9	46.9	19.8	44.2	7.4	19.6	18.8	42.5	9.1	24.3	18.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	227	2039	504	444	2459	608	439	1100	492	253	905	405
V/C Ratio(X)	0.81	1.07	1.10	1.13	0.85	0.20	1.11	0.50	0.95	0.82	0.71	0.56
Avail Cap(c_a), veh/h	231	2039	504	444	2459	608	439	1107	495	309	968	433
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.7	50.2	50.2	63.8	41.6	30.3	63.9	41.5	49.6	67.1	49.9	47.7
Incr Delay (d2), s/veh	19.3	40.3	70.0	82.0	4.0	0.7	77.3	0.4	27.9	13.4	2.2	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	26.4	30.3	14.1	20.2	3.4	13.6	9.3	22.4	4.6	12.1	8.3
LnGrp Delay(d),s/veh	87.0	90.5	120.2	145.7	45.6	31.0	141.2	41.9	77.6	80.4	52.1	49.2
LnGrp LOS	F	F	F	F	D	C	F	D	E	F	D	D
Approach Vol, veh/h		2913			2718			1510			1076	
Approach Delay, s/veh		95.9			63.4			85.1			56.9	
Approach LOS		F			E			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	53.1	25.0	43.3	16.3	62.8	16.9	51.4				
Change Period (Y+Rc), s	6.2	6.2	* 5.4	5.6	6.2	6.2	5.6	* 5.6				
Max Green Setting (Gmax), s	19.8	46.9	* 20	40.3	10.3	56.4	13.8	* 46				
Max Q Clear Time (g_c+I1), s	21.8	48.9	21.6	26.3	10.1	46.2	11.1	44.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	8.4	0.0	10.1	0.2	1.3				
Intersection Summary												
HCM 2010 Ctrl Delay			78.1									
HCM 2010 LOS			E									
Notes												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

Base Year Model Validation

ELK GROVE GENERAL PLAN UPDATE

AM VALIDATION

ID	Road	Segment	Count Total	A Node	B Node	ID (EB or NB)	Model Volume Total	Model / Count	Percent Deviation	Max Percent Deviation	Within Deviaton	Model - Count	Difference Squared
1	Grant Line Rd	Bradshaw Rd to Elk Grove Blvd	770	3904	17513	03904-17513	796	1.03	0.034	0.41	Yes	26	675
2	Grant Line Rd	Mosher Rd to Bradshaw Rd	1,290	8160	17466	08160-17466	1,412	1.09	0.095	0.325	Yes	122	14,968
3	Grant Line Rd	Watermand Rd to Mosher Rd	1,370	3903	17466	03903-17466	1,498	1.09	0.093	0.325	Yes	128	16,370
4	Grant Line Rd	E. Stockton Blvd/Survey Rd to Waterman Rd	1,750	3902	3903	03902-03903	2,017	1.15	0.153	0.286	Yes	267	71,500
5	Grant Line Rd	SR99 NB Ramps to E. Stockton Blvd/Survey Rd	2,080	3902	5639	03902-05639	2,331	1.12	0.121	0.275	Yes	251	62,931
6	Grant Line Rd	SR 99 SB Ramps to SR99 NB Ramps	1,610	1730	5638	01730-05638	1,636	1.02	0.016	0.303	Yes	26	677
7	Grant Line Rd	Promenade Pkwy to SR99 SB Ramps	1,120	1200	5638	01200-05638	908	0.81	0.189	0.359	Yes	-212	44,875
8	Grant Line Rd	Lent Ranch Pkwy to Promenade Pkwy	660	3941	14301	03941-14301	686	1.04	0.039	0.44	Yes	26	671
9	Elk Grove Blvd	Bradshaw Rd to Grant Line Rd	380	2374	17145	02374-17145	478	1.26	0.258	0.52	Yes	98	9,579
10	Grant Line Rd	Elk Grove Blvd to Bond Rd	1,130	3905	17140	03905-17140	1,258	1.11	0.114	0.34	Yes	128	16,468
11	Bradshaw Rd	Grant Line Rd to Elk Grove Blvd	570	3904	6658	03904-06658	602	1.06	0.056	0.475	Yes	32	1,011
12	Waterman Rd	Grant Line Rd to Elk Grove Blvd	600	3903	14509	03903-14509	637	1.06	0.062	0.475	Yes	37	1,400
13	Mosher Rd	Grant Line Rd to Sonoma Creek Dr	190	17466	17519	17466-17519	196	1.03	0.030	0.63	Yes	6	33
14	E. Stockton Blvd	Grant Line Rd to Elkmont Way	720	3902	17523	03902-17523	596	0.83	0.172	0.44	Yes	-124	15,409
16	Promenade Pkwy	Kammerer Rd to South Mall Entrance	460	14301	15656	14301-15656	221	0.48	0.520	0.52	Yes	-239	57,173
18	Kammerer Rd	Bruceville Rd to Lent Ranch Pkwy	650	3939	12373	03939-12373	686	1.06	0.056	0.44	Yes	36	1,303
19	Bruceville Rd	Eschinger Rd to Kammerer Rd	180	3939	3944	03939-03944	168	0.93	0.067	0.63	Yes	-12	144
20	Bruceville Rd	Kammerer Rd to Bilby Rd	650	3938	3939	03938-03939	619	0.95	0.047	0.44	Yes	-31	947
21	Bruceville Rd	Bilby Rd to Whitelock Rd	700	3938	16093	03938-16093	576	0.82	0.177	0.44	Yes	-124	15,435
22	Bilby Rd	Willard Pkwy to Bruceville Rd	710	7058	16000	07058-16000	561	0.79	0.210	0.44	Yes	-149	22,253
24	Willard Pkwy	Bilby Rd (East) to Bilby Rd (West)	730	7058	17528	07058-17528	579	0.79	0.206	0.44	Yes	-151	22,712
25	Willard Pkwy	Epoch Dr to Bilby Rd (East)	130	17529	17530	17529-17530	91	0.70	0.298	0.63	Yes	-39	1,499
26	Bilby Rd	Stovall Dr to Willard Pkwy	850	17528	17531	17528-17531	631	0.74	0.257	0.41	Yes	-219	47,837
27	Whitelock Rd	Bruceville Rd to Big Horn Blvd	650	2314	16098	02314-16098	107	0.16	0.835	0.44	No	-543	294,734
29	Big Horn Blvd	Whitelock Rd to Denali Cir/Lotz Pkwy	590	13660	16104	13660-16104	186	0.32	0.685	0.475	No	-404	163,248
30	Denali Cir	Partington Cir/Winkle Cir to Big Horn Blvd (South)	180	13660	17536	13660-17536	81	0.45	0.548	0.63	Yes	-99	9,725
31	Lotz Pkwy	Big Horn Blvd to Laguna Springs Dr/Wolf Pack Ln	300	13660	14294	13660-14294	185	0.62	0.383	0.575	Yes	-115	13,201
33	Lotz Pkwy	Laguna Springs Dr/Wolf Pack Ln to Auto City Dr	60	13658	17486	13658-17486	508	8.46	7.463	0.683	No	448	200,500
34	Laguna Springs Dr	Lotz Pkwy to Elk Grove Blvd	450	13658	17487	13658-17487	620	1.38	0.377	0.52	Yes	170	28,766
35	Big Horn Blvd	Denali Cir/Lotz Pkwy to Denali Cir	700	6085	13660	06085-13660	197	0.28	0.718	0.44	No	-503	252,776
36	Denali Cir	Philta Way/Joebur Cir to Big Horn Blvd (North)	110	16147	16148	16147-16148	170	1.55	0.546	0.683	Yes	60	3,606
37	Big Horn Blvd	Denali Cir to Civic Center Dr	800	16105	16150	16105-16150	428	0.53	0.465	0.41	No	-372	138,486
38	Civic Center Dr	Big Horn Blvd to Johnston Rd	110	16106	16214	16106-16214	52	0.47	0.531	0.683	Yes	-58	3,414
39	Civic Center Dr	Wymark Dr to Big Horn Blvd	350	16155	16202	16155-16202	162	0.46	0.538	0.575	Yes	-188	35,464
41	Civic Center Dr	Bruceville Rd to Wymark Dr	340	17485	16203	17485-16203	155	0.46	0.544	0.575	Yes	-185	34,233
42	Wymark Dr	Civic Center Dr to Elk Grove Blvd	140	16155	16156	16155-16156	183	1.31	0.307	0.63	Yes	43	1,841
43	Big Horn Blvd	Civic Center Dr to Elk Grove Blvd	1,100	3928	16106	03928-16106	643	0.58	0.415	0.359	No	-457	208,670
44	Elk Grove Blvd	Wymark Dr to Big Horn Blvd	3,090	3928	16158	03928-16158	3,043	0.98	0.015	0.241	Yes	-47	2,209
45	Elk Grove Blvd	Big Horn Blvd to Laguna Springs Dr	3,060	3928	17488	03928-17488	2,712	0.89	0.114	0.241	Yes	-348	121,067
46	Big Horn Blvd	Elk Grove Blvd to Laguna Blvd	1,080	3928	16809	03928-16809	1,308	1.21	0.211	0.359	Yes	228	52,011
47	Wymark Dr	Elk Grove Blvd to Dreyfus Way/Mansell Way	400	16158	16159	16158-16159	266	0.67	0.334	0.52	Yes	-134	17,879
48	Elk Grove Blvd	Bruceville Rd to Wymark Dr	2,740	3927	6652	03927-06652	2,910	1.06	0.062	0.252	Yes	170	28,981
49	Bruceville Rd	Whitelock Rd to Civic Center Dr	1,710	6051	16192	06051-16192	1,605	0.94	0.062	0.294	Yes	-105	11,109
50	Backer Ranch Rd	Bruceville Rd to Elk Grove Blvd	360	16211	16210	16211-16210	232	0.64	0.355	0.575	Yes	-128	16,360
51	Bruceville Rd	Elk Grove Blvd to Laguna Blvd	1,750	3927	16215	03927-16215	1,781	1.02	0.018	0.286	Yes	31	949
52	Elk Grove Blvd	Backer Ranch Rd to Bruceville Rd	2,790	16213	16216	16213-16216	2,667	0.96	0.044	0.248	Yes	-123	15,140

ELK GROVE GENERAL PLAN UPDATE

AM VALIDATION

ID	Road	Segment	Count Total	A Node	B Node	ID (EB or NB)	Model Volume Total	Model / Count	Percent Deviation	Max Percent Deviation	Within Deviator	Model - Count	Difference Squared
53	Bruceville Rd	Elk Grove Blvd to Laguna Blvd	1,960	3927	16353	03927-16353	1,950	0.99	0.005	0.28	Yes	-10	110
54	Laguna Blvd	Bruceville Rd to Big Horn Blvd	2,560	4056	6648	04056-06648	2,986	1.17	0.166	0.255	Yes	426	181,199
55	Elk Grove Blvd	Franklin Blvd to Backer Ranch Rd	2,930	3924	17479	03924-17479	2,560	0.87	0.126	0.244	Yes	-370	137,222
56	Backer Ranch Rd	Elk Grove Blvd to Nugget Market	90	16216	17539	16216-17539	173	1.92	0.922	0.683	No	83	6,882
57	Laguna Blvd	Franklin Blvd to Bruceville Rd	3,700	4055	16360	04055-16360	3,170	0.86	0.143	0.229	Yes	-530	280,794
58	Bruceville Rd	Laguna Blvd to Big Horn Blvd	2,310	4056	6647	04056-06647	2,456	1.06	0.063	0.265	Yes	146	21,356
59	Big Horn Blvd	Bruceville Rd to Laguna Blvd	1,400	4040	13671	04040-13671	899	0.64	0.358	0.313	No	-501	251,131
60	Bruceville Rd	Big Horn Blvd to Sheldon Rd	2,320	3918	4040	03918-04040	2,858	1.23	0.232	0.265	Yes	538	289,853
61	Big Horn Blvd	Franklin Blvd to Bruceville Rd	1,590	4036	16673	04036-16673	861	0.54	0.459	0.303	No	-729	531,729
62	Bruceville Rd	Sheldon Rd to Damascus Dr	1,480	3918	8393	03918-08393	1,830	1.24	0.236	0.313	Yes	350	122,405
63	Center Parkway	Laguna Village to Bruceville Rd	990	3918	13664	03918-13664	1,237	1.25	0.249	0.38	Yes	247	60,801
64	Franklin Blvd	Laguna Blvd to Big Horn Blvd	2,650	4055	16643	04055-16643	3,095	1.17	0.168	0.252	Yes	445	198,150
65	Big Horn Blvd	Bramblewood Way to Franklin Blvd	480	4036	16625	04036-16625	136	0.28	0.716	0.52	No	-344	118,223
66	Franklin Blvd	Big Horn Blvd/Dwight Rd to Sims Rd	2,640	3916	4036	03916-04036	2,844	1.08	0.077	0.252	Yes	204	41,626
67	Laguna Blvd	Dwight Rd/Babson Rd to Franklin Blvd	2,940	5927	16389	05927-16389	3,917	1.33	0.332	0.244	No	977	954,155
68	Franklin Blvd	Elk Grove Blvd to Laguna Blvd	2,020	3924	16602	03924-16602	3,025	1.50	0.497	0.275	No	1,005	1,009,142
69	Dwight Rd	Laguna Blvd to Dwight Rd	180	16389	17541	16389-17541	176	0.98	0.025	0.63	Yes	-4	20
70	Babson Dr	Renwick Ave to Laguna Blvd	780	16389	16390	16389-16390	599	0.77	0.233	0.41	Yes	-181	32,911
71	Laguna Blvd	Harbour Point Dr to Dwight Rd/Babson Dr	2,550	6348	17721	06348-17721	2,946	1.16	0.155	0.255	Yes	396	156,903
72	Elk Grove Blvd	Four Winds Dr to Franklin Blvd	3,870	3924	5929	03924-05929	3,019	0.78	0.220	0.224	Yes	-851	724,063
73	Four Winds Dr	Elk Grove Blvd to Lakepoint Drive	1,170	16494	17548	16494-17548	555	0.47	0.526	0.34	No	-615	378,588
74	Elk Grove Blvd	Harbour Point Dr to Four Winds Dr	2,770	6346	6347	06346-06347	2,465	0.89	0.110	0.248	Yes	-305	92,971
75	W Taron Dr	W Taron Ct/Riparian Dr to Elk Grove Blvd	770	16538	16539	16538-16539	240	0.31	0.688	0.41	No	-530	280,893
76	Elk Grove Blvd	I-5 NB Ramps to Harbour Point Dr/W Taron Dr	2,490	5012	6347	05012-06347	2,277	0.91	0.086	0.26	Yes	-213	45,500
79	Harbour Point Dr	Elk Grove Blvd to Laguna Blvd	1,040	6348	17722	06348-17722	1,013	0.97	0.026	0.359	Yes	-27	738
81	Elk Grove Blvd	Laguna Springs Dr to Auto Center Dr	3,150	13656	14303	13656-14303	2,991	0.95	0.050	0.241	Yes	-159	25,134
82	Elk Grove Blvd	Auto Center Dr to SR-99 SB Ramps	3,330	3929	5643	03929-05643	3,270	0.98	0.018	0.235	Yes	-60	3,603
83	Elk Grove Blvd	SR-99 SB Ramps to SR-99 NB On-Ramp	3,130	5643	14905	05643-14905	3,425	1.09	0.094	0.241	Yes	295	87,300
84	Elk Grove Blvd	SR-99 NB On-Ramp to Emerald Vista Dr/E Stockton Blvd	3,310	3930	5642	03930-05642	3,530	1.07	0.067	0.235	Yes	220	48,605
85	E Stockton Blvd	SR-99 NB Ramps to Elk Grove Blvd	1,520	3930	17568	03930-17568	726	0.48	0.522	0.303	No	-794	630,657
86	E Stockton Blvd	Valley Oak Ln to SR-99 NB Ramps	780	8159	14299	08159-14299	684	0.88	0.123	0.41	Yes	-96	9,175
87	Emeral Vista Dr	Elk Grove Blvd to Banff Visa Drive	880	3930	17162	03930-17162	280	0.32	0.682	0.38	No	-600	359,756
89	Laguna Springs Dr	Elk Grove Blvd to Laguna Blvd	810	4057	16823	04057-16823	1,184	1.46	0.462	0.41	No	374	140,163
90	Laguna Blvd	Big Horn Blvd to Laguna Springs Dr	3,394	4057	4267	04057-04267	4,318	1.27	0.272	0.235	No	924	853,198
91	W Stockton Blvd	Laguna Blvd to Dunisch Rd	600	4057	16797	04057-16797	562	0.94	0.063	0.475	Yes	-38	1,440
92	Elk Grove Blvd	Emerald Vista Dr/E Stockton Blvd to Elk Grove Florin Rd	2,550	2680	3930	02680-03930	2,629	1.03	0.031	0.255	Yes	79	6,268
93	Elk Grove Florin Rd	Elk Grove Blvd to Sierra St	1,630	3932	17260	03932-17260	1,676	1.03	0.028	0.294	Yes	46	2,111
94	Elk Grove Blvd	Elk Grove Florin Rd to Waterman Rd	1,180	3932	17341	03932-17341	967	0.82	0.180	0.34	Yes	-213	45,163
95	Elk Grove Florin Rd	Elk Grove Blvd to Bond Rd	1,790	3932	17260	03932-17260	1,725	0.96	0.036	0.286	Yes	-65	4,224
96	Waterman Rd	Elk Grove Blvd to Bond Rd	1,050	3933	17502	03933-17502	1,057	1.01	0.007	0.359	Yes	7	48
97	Bond Rd	Elk Grove Florin Rd to Waterman Rd	2,460	2368	17501	02368-17501	2,528	1.03	0.028	0.26	Yes	68	4,688
98	Bond Rd	Waterman Rd to Bradshaw Rd	1,810	2348	17299	02348-17299	1,487	0.82	0.179	0.286	Yes	-323	104,603
99	Elk Grove Florin Rd	Bond Rd to Sheldon Rd	2,310	2368	16824	02368-16824	2,421	1.05	0.048	0.265	Yes	111	12,337
100	Whitelock Rd	Franklin Blvd/Willard Pkwy to Bruceville Rd	1,350	17695	16044	17695-16044	626	0.46	0.536	0.325	No	-724	524,094
101	Franklin Blvd	Whitelock Rd to Elk Grove Blvd	2,120	17689	16297	17689-16297	1,500	0.71	0.293	0.275	No	-620	384,985
102	Elk Grove Blvd	Waterman Rd to Bradshaw Rd	950	3933	17456	03933-17456	907	0.95	0.046	0.38	Yes	-43	1,883

ELK GROVE GENERAL PLAN UPDATE

AM VALIDATION

ID	Road	Segment	Count Total	A Node	B Node	ID (EB or NB)	Model Volume Total	Model / Count	Percent Deviation	Max Percent Deviation	Within Deviator	Model - Count	Difference Squared
103	Bradshaw Rd	Elk Grove Blvd to Bond Rd	930	2374	17317	02374-17317	1,012	1.09	0.088	0.38	Yes	82	6,695
104	Bond Rd	Bradshaw Rd to Bader RD	1,310	2347	17101	02347-17101	1,043	0.80	0.204	0.325	Yes	-267	71,272
105	Bond Rd	Bader Rd to Grant Line Rd	610	17101	17110	17101-17110	613	1.00	0.004	0.475	Yes	3	7
106	Wrangler Dr	Grant Line Rd to Canter Dr	20	17084	17086	17084-17086	12	0.62	0.383	0.683	Yes	-8	59
107	Grant Line Rd	Bond Rd to Wilton Rd	1,620	2346	17074	02346-17074	1,841	1.14	0.136	0.303	Yes	221	48,841
108	Wilton Rd	Grant Line Rd to Leisure Oak Ln	920	3906	14366	03906-14366	586	0.64	0.363	0.38	Yes	-334	111,556
109	Grant Line Rd	Wilton Rd to Sheldon Rd	1,700	3906	17070	03906-17070	1,841	1.08	0.083	0.294	Yes	141	19,933
110	Sheldon Rd	Excelsior Rd to Grant Line Rd	610	3907	3923	03907-03923	387	0.63	0.365	0.475	Yes	-223	49,663
111	Sheldon Rd	Elk Grove Florin Rd to Waterman Rd	940	3922	16987	03922-16987	1,264	1.34	0.344	0.38	Yes	324	104,669
112	Waterman Rd	Bond Rd to Sheldon Rd	1,230	2348	8155	02348-08155	1,058	0.86	0.139	0.34	Yes	-172	29,433
113	Sheldon Rd	Waterman Rd to Bradshaw Rd	630	4054	8151	04054-08151	977	1.55	0.551	0.44	No	347	120,576
114	Bradshaw Rd	Bond Rd to Sheldon Rd	1,230	2347	8150	02347-08150	1,106	0.90	0.101	0.34	Yes	-124	15,374
115	Bader Rd	Bond Rd to Sheldon Rd	660	17100	17101	17100-17101	662	1.00	0.003	0.44	Yes	2	3
116	Sheldon Rd	Bradshaw Rd to bader Rd	570	4066	17013	04066-17013	554	0.97	0.028	0.475	Yes	-16	247
117	Sheldon Rd	Bader Rd to Dillard Oaks Ct	480	17013	17507	17013-17507	347	0.72	0.276	0.52	Yes	-133	17,566
118	Grant Line Rd	Sheldon Rd to Calvine Rd	1,460	3907	17067	03907-17067	1,710	1.17	0.171	0.313	Yes	250	62,424
119	Grant Line Rd	Calvine Rd to Sloughhouse Rd	1,790	3908	3909	03908-03909	2,059	1.15	0.151	0.286	Yes	269	72,622
120	Excelsior Rd	Corfu Dr to Calvine Rd	460	3914	17018	03914-17018	472	1.03	0.026	0.52	Yes	12	142
121	Excelsior Rd	Calvine Rd to Silent Wings Way	560	3914	17553	03914-17553	444	0.79	0.207	0.475	Yes	-116	13,501
122	Calvine Rd	Excelsior Rd to Grant Line Rd	440	3914	17509	03914-17509	380	0.86	0.137	0.52	Yes	-60	3,625
123	Calvine Rd	Bradshaw Rd to Excelsior Rd	1,030	3913	8094	03913-08094	757	0.73	0.265	0.359	Yes	-273	74,506
124	Bradshaw Rd	Calvine Rd to Knightview Ct	1,810	4066	8395	04066-08395	1,812	1.00	0.001	0.286	Yes	2	6
125	Bradshaw Rd	Sheldon Rd to Calvine Rd	990	4066	8395	04066-08395	1,235	1.25	0.248	0.38	Yes	245	60,259
126	Waterman Rd	Sheldon Rd to Calvine Rd	910	4054	8365	04054-08365	1,002	1.10	0.101	0.38	Yes	92	8,516
127	Waterman Rd	Calvine Rd to Tamerton Way	930	5940	17557	05940-17557	802	0.86	0.138	0.38	Yes	-128	16,396
128	Elk Grove Florin Rd	Calvine Rd to Robbins Rd	2,730	3912	17558	03912-17558	2,565	0.94	0.060	0.252	Yes	-165	27,171
129	Calvine Rd	Vintage Park Dr to Elk Grove Florin Rd	2,750	3912	8095	03912-08095	2,448	0.89	0.110	0.248	Yes	-302	91,319
130	Calvine Rd	Waterman Rd to Bradshaw Rd	2,090	5940	16999	05940-16999	1,298	0.62	0.379	0.275	No	-792	627,984
131	Calvine Rd	Elk Grove Florin Rd to Waterman Rd	2,630	3912	17504	03912-17504	1,579	0.60	0.400	0.252	No	-1,051	1,105,547
132	Elk Grove Florin Rd	Sheldon Rd to Calvine Rd	2,600	3922	16942	03922-16942	2,398	0.92	0.078	0.255	Yes	-202	40,877
133	Bader Rd	Sheldon Rd to Mix Ln	520	17013	17015	17013-17015	562	1.08	0.081	0.475	Yes	42	1,753
134	Sheldon Rd	Garrity Dr/Power Inn Rd to Elk Grove Florin Rd	1,950	4703	4705	04703-04705	2,210	1.13	0.133	0.28	Yes	260	67,479
135	Garrity Dr	Alberton Pl to Sheldon Rd	290	4703	17559	04703-17559	52	0.18	0.819	0.575	No	-238	56,423
136	Power Inn Rd	Sheldon Rd to Vista Brooks Dr/Villeneuve Dr	1,510	4703	16921	04703-16921	1,165	0.77	0.228	0.303	Yes	-345	119,009
137	Sheldon Rd	E Stockton Blvd to Garrity Dr/Power Inn Rd	2,870	3920	17506	03920-17506	2,097	0.73	0.269	0.248	No	-773	598,079
138	E Stockton Blvd	Sheldon Rd to E Stockton Blvd	540	17506	17572	17506-17572	468	0.87	0.133	0.475	Yes	-72	5,148
139	Sheldon Rd	SR-99 NB Ramps to E Stockton Blvd	3,190	3902	5652	03902-05652	2,177	0.68	0.317	0.241	No	-1,013	1,025,212
141	Sheldon Rd	Lewist Stein Rd/Jocelyn Way to SR-99 NB Ramps	2,230	3919	5653	03919-05653	1,751	0.79	0.215	0.27	Yes	-479	229,608
142	Sheldon Rd	Bruceville Rd to Lewis Stein Rd/Jocelyn Way	1,520	3918	3931	03918-03931	805	0.53	0.470	0.303	No	-715	510,727
143	Lewis Stein Rd	W Stockton Blvd to Sheldon Rd	820	3913	13667	03913-13667	858	1.05	0.047	0.41	Yes	38	1,469
144	Jocelyn Way	Sheldon Rd to Praline Way	270	3919	17560	03919-17560	383	1.42	0.419	0.575	Yes	113	12,811
145	Bond Rd	Elk Crest Dr to Elk Grove Florin Rd	2,710	17150	17561	17150-17561	3,132	1.16	0.156	0.252	Yes	422	177,898
147	Elk Crest Dr	Bond Rd to Elk Grove Marketplace	210	17561	17565	17561-17565	230	1.10	0.095	0.63	Yes	20	399
148	Bond Rd	E Stockton Blvd to Elk Crest Dr	3,157	5648	17561	05648-17561	3,725	1.18	0.180	0.241	Yes	568	323,141
149	E Stockton Blvd	Banff Vista Dr to Bond Rd	350	5648	14296	05648-14296	245	0.70	0.300	0.575	Yes	-105	10,996
150	E Stockton Blvd	Bond Rd to Sheldon Rd	440	5648	14296	05648-14296	814	1.85	0.849	0.52	No	374	139,572

ELK GROVE GENERAL PLAN UPDATE

AM VALIDATION

ID	Road	Segment	Count Total	A Node	B Node	ID (EB or NB)	Model Volume Total	Model / Count	Percent Deviation	Max Percent Deviation	Within Deviaton	Model - Count	Difference Squared
151	Bond Rd	Laguna Springs Dr to SR-99 Ramps	4,500	4057	5649	04057-05649	4,904	1.09	0.090	0.209	Yes	404	162,991
153	Bond Rd	SR-99 NB Ramps to E Stockton Blvd	2,740	9308	9310	09308-09310	3,192	1.16	0.165	0.252	Yes	452	204,180
154	Calvine Rd	Vineyard Rd to Excelsior Rd	1,030	5925	17510	05925-17510	579	0.56	0.438	0.359	No	-451	203,647
155	Laguna Springs Dr	Laguna Palms Way to Laguna Blvd	810	6651	17567	06651-17567	1,109	1.37	0.369	0.41	Yes	299	89,261
156	Elk Grove Florin Rd	Elk Grove Blvd to E Stockton Blvd	1,632	3932	17651	03932-17651	1,118	0.68	0.315	0.294	No	-514	264,699
157	Hood Franklin Rd	I-5 NB Ramps to Franklin Blvd	697	3937	5008	03937-05008	993	1.42	0.424	0.44	Yes	296	87,498
158	Whitelock Rd	Big Horn Blvd to W Stockton Blvd	669	13661	16113	13661-16113	133	0.20	0.801	0.44	No	-536	287,446
			201,239				192,129	Total					
							145	Total Count					
							114	Links Within Deviation					
							31	Links Outside Deviation					
							0.95	Model/Count Ratio					
							79%	Percent within Caltrans Deviation (>75%)					
							26%	Percent Root Mean Square Error (<40%)					
							0.94	Correlation Coefficeint (>0.88)					

ELK GROVE GENERAL PLAN UPDATE

PM VALIDATION

ID	Road	Segment	Count Total	A Node	B Node	ID	Model Volume Total	Model / Count	Percent Deviation	Max Percent Deviation	Within Deviaton	Model - Count	Difference Squared
1	Grant Line Rd	Bradshaw Rd to Elk Grove Blvd	710	3904	17513	03904-17513	720	1.01	0.014	0.44	Yes	10	100
2	Grant Line Rd	Mosher Rd to Bradshaw Rd	1210	8160	17466	08160-17466	1,349	1.12	0.115	0.34	Yes	139	19,451
3	Grant Line Rd	Watermand Rd to Mosher Rd	1310	3903	17466	03903-17466	1,458	1.11	0.113	0.325	Yes	148	21,834
4	Grant Line Rd	E. Stockton Blvd/Survey Rd to Waterman Rd	1730	3902	17629	03902-17629	2,012	1.16	0.163	0.294	Yes	282	79,568
5	Grant Line Rd	SR99 NB Ramps to E. Stockton Blvd/Survey Rd	2230	3902	9980	03902-09980	2,244	1.01	0.006	0.27	Yes	14	202
6	Grant Line Rd	SR 99 SB Ramps to SR99 NB Ramps	1730	5639	5638	05639-05638	1,586	0.92	0.083	0.294	Yes	-144	20,734
7	Grant Line Rd	Promenade Pkwy to SR99 SB Ramps	1200	5638	14301	05638-14301	848	0.71	0.293	0.34	Yes	-352	123,858
8	Grant Line Rd	Lent Ranch Pkwy to Promenade Pkwy	720	3941	14301	03941-14301	623	0.87	0.134	0.44	Yes	-97	9,331
9	Elk Grove Blvd	Bradshaw Rd to Grant Line Rd	360	2374	17145	02374-17145	413	1.15	0.148	0.575	Yes	53	2,840
10	Grant Line Rd	Elk Grove Blvd to Bond Rd	1030	3905	17140	03905-17140	1,118	1.09	0.086	0.359	Yes	88	7,798
11	Bradshaw Rd	Grant Line Rd to Elk Grove Blvd	510	3904	6658	03904-06658	618	1.21	0.212	0.475	Yes	108	11,708
12	Waterman Rd	Grant Line Rd to Elk Grove Blvd	680	3903	17628	03903-17628	696	1.02	0.024	0.44	Yes	16	262
13	Mosher Rd	Grant Line Rd to Sonoma Creek Dr	170	17466	17519	17466-17519	197	1.16	0.156	0.63	Yes	27	708
14	E. Stockton Blvd	Grant Line Rd to Elkmont Way	780	3902	17523	03902-17523	565	0.72	0.276	0.41	Yes	-215	46,234
16	Promenade Pkwy	Kammerer Rd to South Mall Entrance	490	14301	17837	14301-17837	223	0.46	0.544	0.52	No	-267	71,147
18	Kammerer Rd	Bruceville Rd to Lent Ranch Pkwy	720	17518	17859	17518-17859	624	0.87	0.133	0.44	Yes	-96	9,220
19	Bruceville Rd	Eschinger Rd to Kammerer Rd	230	3939	3944	03939-03944	118	0.51	0.487	0.63	Yes	-112	12,524
20	Bruceville Rd	Kammerer Rd to Bilby Rd	670	3939	17742	03939-17742	615	0.92	0.082	0.44	Yes	-55	3,044
21	Bruceville Rd	Bilby Rd to Whitelock Rd	670	3938	17735	03938-17735	616	0.92	0.081	0.44	Yes	-54	2,960
22	Bilby Rd	Willard Pkwy to Bruceville Rd	520	7058	16000	07058-16000	495	0.95	0.048	0.475	Yes	-25	618
24	Willard Pkwy	Bilby Rd (East) to Bilby Rd (West)	520	7058	17528	07058-17528	453	0.87	0.129	0.475	Yes	-67	4,480
25	Willard Pkwy	Epoch Dr to Bilby Rd (East)	100	17530	17529	17530-17529	73	0.73	0.266	0.683	Yes	-27	705
26	Bilby Rd	Stovall Dr to Willard Pkwy	630	17528	17531	17528-17531	472	0.75	0.250	0.44	Yes	-158	24,827
27	Whitelock Rd	Bruceville Rd to Big Horn Blvd	690	6051	15676	06051-15676	121	0.17	0.825	0.44	No	-569	324,270
29	Big Horn Blvd	Whitelock Rd to Denali Cir/Lotz Pkwy	580	13660	16104	13660-16104	193	0.33	0.667	0.475	No	-387	149,490
30	Denali Cir	Partington Cir/Winkle Cir to Big Horn Blvd (South)	180	13660	17536	13660-17536	91	0.51	0.492	0.63	Yes	-89	7,842
31	Lotz Pkwy	Big Horn Blvd to Laguna Springs Dr/Wolf Pack Ln	240	13660	14294	13660-14294	160	0.67	0.334	0.63	Yes	-80	6,418
33	Lotz Pkwy	Laguna Springs Dr/Wolf Pack Ln to Auto City Dr	60	13658	17486	13658-17486	515	8.58	7.583	0.683	No	455	206,980
34	Laguna Springs Dr	Lotz Pkwy to Elk Grove Blvd	380	13658	17487	13658-17487	681	1.79	0.791	0.52	No	301	90,382
35	Big Horn Blvd	Denali Cir/Lotz Pkwy to Denali Cir	700	6085	13660	06085-13660	140	0.20	0.800	0.44	No	-560	313,587
36	Denali Cir	Philta Way/Joebar Cir to Big Horn Blvd (North)	110	16147	16148	16147-16148	164	1.50	0.495	0.683	Yes	54	2,967
37	Big Horn Blvd	Denali Cir to Civic Center Dr	800	16105	16150	16105-16150	370	0.46	0.537	0.41	No	-430	184,648
38	Civic Center Dr	Big Horn Blvd to Johnston Rd	110	16106	16214	16106-16214	54	0.49	0.507	0.683	Yes	-56	3,108
39	Civic Center Dr	Wymark Dr to Big Horn Blvd	300	16155	16202	16155-16202	170	0.57	0.432	0.575	Yes	-130	16,807
41	Civic Center Dr	Bruceville Rd to Wymark Dr	320	17485	16203	17485-16203	165	0.52	0.485	0.575	Yes	-155	24,054
42	Wymark Dr	Civic Center Dr to Elk Grove Blvd	110	16155	16156	16155-16156	182	1.66	0.657	0.683	Yes	72	5,222
43	Big Horn Blvd	Civic Center Dr to Elk Grove Blvd	950	3928	16106	03928-16106	591	0.62	0.378	0.38	Yes	-359	128,947
44	Elk Grove Blvd	Wymark Dr to Big Horn Blvd	3380	3928	16158	03928-16158	3,087	0.91	0.087	0.235	Yes	-293	85,726
45	Elk Grove Blvd	Big Horn Blvd to Laguna Springs Dr	3560	3928	17488	03928-17488	2,824	0.79	0.207	0.229	Yes	-736	542,262
46	Big Horn Blvd	Elk Grove Blvd to Laguna Blvd	1710	3928	17673	03928-17673	1,417	0.83	0.172	0.294	Yes	-293	86,025
47	Wymark Dr	Elk Grove Blvd to Dreyfus Way/Mansell Way	210	16158	16159	16158-16159	299	1.42	0.424	0.63	Yes	89	7,945
48	Elk Grove Blvd	Bruceville Rd to Wymark Dr	3260	3927	17674	03927-17674	2,915	0.89	0.106	0.235	Yes	-345	119,029
49	Bruceville Rd	Whitelock Rd to Civic Center Dr	1790	6051	16192	06051-16192	1,625	0.91	0.092	0.286	Yes	-165	27,329
50	Backer Ranch Rd	Bruceville Rd to Elk Grove Blvd	430	16211	16210	16211-16210	239	0.56	0.443	0.52	Yes	-191	36,328

ELK GROVE GENERAL PLAN UPDATE

PM VALIDATION

ID	Road	Segment	Count Total	A Node	B Node	ID	Model Volume Total	Model / Count	Percent Deviation	Max Percent Deviation	Within Deviaton	Model - Count	Difference Squared
51	Bruceville Rd	Civic Center Dr to Elk Grove Blvd	1940	16215	17679	16215-17679	1,791	0.92	0.077	0.28	Yes	-149	22,097
52	Elk Grove Blvd	Backer Ranch Rd to Bruceville Rd	2920	16216	17691	16216-17691	2,710	0.93	0.072	0.244	Yes	-210	43,891
53	Bruceville Rd	Elk Grove Blvd to Laguna Blvd	2320	3927	16353	03927-16353	2,017	0.87	0.131	0.265	Yes	-303	91,683
54	Laguna Blvd	Bruceville Rd to Big Horn Blvd	2720	4056	6648	04056-06648	3,089	1.14	0.136	0.252	Yes	369	136,002
55	Elk Grove Blvd	Franklin Blvd to Backer Ranch Rd	3020	16216	3926	16216-03926	2,578	0.85	0.146	0.241	Yes	-442	195,083
56	Backer Ranch Rd	Elk Grove Blvd to Nugget Market	230	16216	17539	16216-17539	176	0.76	0.237	0.63	Yes	-54	2,964
57	Laguna Blvd	Franklin Blvd to Bruceville Rd	3700	4055	16360	04055-16360	3,163	0.85	0.145	0.229	Yes	-537	288,698
58	Bruceville Rd	Laguna Blvd to Big Horn Blvd	2910	4056	6647	04056-06647	2,460	0.85	0.155	0.244	Yes	-450	202,625
59	Big Horn Blvd	Bruceville Rd to Laguna Blvd	2350	4040	13671	04040-13671	957	0.41	0.593	0.265	No	-1,393	1,939,806
60	Bruceville Rd	Big Horn Blvd to Sheldon Rd	2360	3918	4040	03918-04040	2,896	1.23	0.227	0.265	Yes	536	287,175
61	Big Horn Blvd	Franklin Blvd to Bruceville Rd	1740	4036	16673	04036-16673	914	0.53	0.475	0.294	No	-826	682,982
62	Bruceville Rd	Sheldon Rd to Damascus Dr	1670	3918	8393	03918-08393	1,917	1.15	0.148	0.294	Yes	247	60,855
63	Center Parkway	Laguna Village to Bruceville Rd	1140	3918	13664	03918-13664	1,078	0.95	0.054	0.34	Yes	-62	3,795
64	Franklin Blvd	Laguna Blvd to Big Horn Blvd	2410	4055	16643	04055-16643	3,014	1.25	0.251	0.26	Yes	604	364,695
65	Big Horn Blvd	Bramblewood Way to Franklin Blvd	330	16625	4036	16625-04036	143	0.43	0.565	0.575	Yes	-187	34,819
66	Franklin Blvd	Big Horn Blvd/Dwight Rd to Sims Rd	2760	4036	3916	04036-03916	2,715	0.98	0.016	0.248	Yes	-45	2,066
67	Laguna Blvd	Dwight Rd/Babson Rd to Franklin Blvd	3540	16389	5927	16389-05927	3,566	1.01	0.007	0.229	Yes	26	677
68	Franklin Blvd	Elk Grove Blvd to Laguna Blvd	2020	3924	16602	03924-16602	2,986	1.48	0.478	0.275	No	966	933,559
69	Dwight Rd	Laguna Blvd to Dwight Rd	370	16389	17541	16389-17541	149	0.40	0.597	0.575	No	-221	48,737
70	Babson Dr	Renwick Ave to Laguna Blvd	650	16390	16389	16390-16389	636	0.98	0.021	0.44	Yes	-14	192
71	Laguna Blvd	Harbour Point Dr to Dwight Rd/Babson Dr	3120	6348	17721	06348-17721	2,475	0.79	0.207	0.241	Yes	-645	415,531
72	Elk Grove Blvd	Four Winds Dr to Franklin Blvd	3490	5929	3924	05929-03924	2,875	0.82	0.176	0.235	Yes	-615	378,166
73	Four Winds Dr	Elk Grove Blvd to Lakepoint Drive	780	5929	17548	05929-17548	580	0.74	0.257	0.41	Yes	-200	40,156
74	Elk Grove Blvd	Harbour Point Dr to Four Winds Dr	2750	6347	17709	06347-17709	2,288	0.83	0.168	0.248	Yes	-462	213,544
75	W Taron Dr	W Taron Ct/Riparian Dr to Elk Grove Blvd	760	16539	16538	16539-16538	224	0.30	0.705	0.41	No	-536	286,762
76	Elk Grove Blvd	I-5 NB Ramps to Harbour Point Dr/W Taron Dr	2270	5012	6347	05012-06347	2,087	0.92	0.080	0.265	Yes	-183	33,357
79	Harbour Point Dr	Elk Grove Blvd to Laguna Blvd	1050	6348	17722	06348-17722	852	0.81	0.189	0.359	Yes	-198	39,381
81	Elk Grove Blvd	Laguna Springs Dr to Auto Center Dr	3590	13656	14303	13656-14303	3,122	0.87	0.130	0.229	Yes	-468	219,382
82	Elk Grove Blvd	Auto Center Dr to SR-99 SB Ramps	3790	3929	5643	03929-05643	3,369	0.89	0.111	0.224	Yes	-421	177,407
83	Elk Grove Blvd	SR-99 SB Ramps to SR-99 NB On-Ramp	3830	5643	14905	05643-14905	3,625	0.95	0.054	0.224	Yes	-205	42,144
84	Elk Grove Blvd	SR-99 NB On-Ramp to Emerald Vista Dr/E Stockton Blvd	3970	5642	3930	05642-03930	3,726	0.94	0.062	0.224	Yes	-244	59,657
85	E Stockton Blvd	SR-99 NB Ramps to Elk Grove Blvd	1810	17568	3930	17568-03930	785	0.43	0.566	0.286	No	-1,025	1,049,978
86	E Stockton Blvd	Valley Oak Ln to SR-99 NB Ramps	770	14299	17652	14299-17652	640	0.83	0.168	0.41	Yes	-130	16,800
87	Emerald Vista Dr	Elk Grove Blvd to Banff Visa Drive	790	3930	17162	03930-17162	304	0.39	0.615	0.41	No	-486	235,987
89	Laguna Springs Dr	Elk Grove Blvd to Laguna Blvd	1350	4057	16823	04057-16823	1,201	0.89	0.110	0.325	Yes	-149	22,225
90	Laguna Blvd	Big Horn Blvd to Laguna Springs Dr	5105	4267	17672	04267-17672	4,406	0.86	0.137	0.199	Yes	-699	487,996
91	W Stockton Blvd	Laguna Blvd to Dunisch Rd	570	4057	16797	04057-16797	705	1.24	0.237	0.475	Yes	135	18,258
92	Elk Grove Blvd	Emerald Vista Dr/E Stockton Blvd to Elk Grove Florin Rd	2830	3930	17650	03930-17650	2,612	0.92	0.077	0.248	Yes	-218	47,676
93	Elk Grove Florin Rd	Elk Grove Blvd to Sierra St	1330	3932	17260	03932-17260	1,610	1.21	0.211	0.325	Yes	280	78,383
94	Elk Grove Blvd	Elk Grove Florin Rd to Waterman Rd	1390	3932	17654	03932-17654	1,004	0.72	0.277	0.313	Yes	-386	148,706
95	Elk Grove Florin Rd	Elk Grove Blvd to Bond Rd	1710	3932	17260	03932-17260	1,644	0.96	0.038	0.294	Yes	-66	4,318
96	Waterman Rd	Elk Grove Blvd to Bond Rd	1030	3933	17502	03933-17502	1,110	1.08	0.078	0.359	Yes	80	6,441
97	Bond Rd	Elk Grove Florin Rd to Waterman Rd	2190	2368	17501	02368-17501	2,416	1.10	0.103	0.27	Yes	226	51,045
98	Bond Rd	Waterman Rd to Bradshaw Rd	1420	2348	17620	02348-17620	1,294	0.91	0.089	0.313	Yes	-126	15,861

ELK GROVE GENERAL PLAN UPDATE

PM VALIDATION

ID	Road	Segment	Count Total	A Node	B Node	ID	Model Volume Total	Model / Count	Percent Deviation	Max Percent Deviation	Within Deviaton	Model - Count	Difference Squared
99	Elk Grove Florin Rd	Bond Rd to Sheldon Rd	2140	2368	16824	02368-16824	2,317	1.08	0.083	0.27	Yes	177	31,363
100	Whitelock Pkwy	Franklin Blvd/Willard Pkwy to Bruceville Rd	1170	17695	16044	17695-16044	635	0.54	0.457	0.34	No	-535	286,230
101	Franklin Blvd	Whitelock Rd to Elk Grove Blvd	1620	17689	16297	17689-16297	1,845	1.14	0.139	0.303	Yes	225	50,537
102	Elk Grove Blvd	Waterman Rd to Bradshaw Rd	960	3933	17624	03933-17624	893	0.93	0.070	0.38	Yes	-67	4,481
103	Bradshaw Rd	Elk Grove Blvd to Bond Rd	770	2374	17610	02374-17610	1,007	1.31	0.308	0.41	Yes	237	56,404
104	Bond Rd	Bradshaw Rd to Bader Rd	950	2347	17606	02347-17606	909	0.96	0.043	0.38	Yes	-41	1,661
105	Bond Rd	Bader Rd to Grant Line Rd	540	17101	17110	17101-17110	555	1.03	0.028	0.475	Yes	15	221
106	Wrangler Dr	Grant Line Rd to Canter Dr	40	17084	17874	17084-17874	14	0.35	0.652	0.683	Yes	-26	681
107	Grant Line Rd	Bond Rd to Wilton Rd	1480	17084	2346	17084-02346	1,633	1.10	0.103	0.313	Yes	153	23,405
108	Wilton Rd	Grant Line Rd to Leisure Oak Ln	870	3906	14366	03906-14366	572	0.66	0.342	0.41	Yes	-298	88,581
109	Grant Line Rd	Wilton Rd to Sheldon Rd	1690	3906	17608	03906-17608	1,623	0.96	0.040	0.294	Yes	-67	4,482
110	Sheldon Rd	Excelsior Rd to Grant Line Rd	590	3923	3907	03923-03907	408	0.69	0.309	0.475	Yes	-182	33,232
111	Sheldon Rd	Elk Grove Florin Rd to Waterman Rd	1180	3922	16987	03922-16987	1,204	1.02	0.021	0.34	Yes	24	586
112	Waterman Rd	Bond Rd to Sheldon Rd	900	2348	8155	02348-08155	1,019	1.13	0.132	0.38	Yes	119	14,117
113	Sheldon Rd	Waterman Rd to Bradshaw Rd	650	4054	17614	04054-17614	965	1.48	0.484	0.44	No	315	99,034
114	Bradshaw Rd	Bond Rd to Sheldon Rd	910	2347	17605	02347-17605	960	1.06	0.055	0.38	Yes	50	2,525
115	Bader Rd	Bond Rd to Sheldon Rd	430	17101	17100	17101-17100	565	1.31	0.313	0.52	Yes	135	18,170
116	Sheldon Rd	Bradshaw Rd to Bader Rd	580	4066	17592	04066-17592	501	0.86	0.136	0.475	Yes	-79	6,215
117	Sheldon Rd	Bader Rd to Dillard Oaks Ct	530	17013	17507	17013-17507	315	0.59	0.406	0.475	Yes	-215	46,393
118	Grant Line Rd	Sheldon Rd to Calvine Rd	1430	3907	17067	03907-17067	1,539	1.08	0.076	0.313	Yes	109	11,782
119	Grant Line Rd	Calvine Rd to Sloughhouse Rd	1750	3908	3909	03908-03909	1,839	1.05	0.051	0.286	Yes	89	7,943
120	Excelsior Rd	Corfu Dr to Calvine Rd	460	17018	3914	17018-03914	365	0.79	0.207	0.52	Yes	-95	9,084
121	Excelsior Rd	Calvine Rd to Silent Wings Way	540	3914	17553	03914-17553	330	0.61	0.390	0.475	Yes	-210	44,288
122	Calvine Rd	Excelsior Rd to Grant Line Rd	430	3914	17583	03914-17583	333	0.77	0.225	0.52	Yes	-97	9,395
123	Calvine Rd	Bradshaw Rd to Excelsior Rd	970	3913	17585	03913-17585	688	0.71	0.291	0.38	Yes	-282	79,578
124	Bradshaw Rd	Calvine Rd to Knightview Ct	1780	3913	6663	03913-06663	1,640	0.92	0.079	0.286	Yes	-140	19,699
125	Bradshaw Rd	Sheldon Rd to Calvine Rd	930	4066	8395	04066-08395	1,186	1.28	0.275	0.38	Yes	256	65,554
126	Waterman Rd	Sheldon Rd to Calvine Rd	900	4054	8365	04054-08365	942	1.05	0.047	0.38	Yes	42	1,786
127	Waterman Rd	Calvine Rd to Tamerton Way	730	5940	17557	05940-17557	834	1.14	0.142	0.44	Yes	104	10,752
128	Elk Grove Florin Rd	Calvine Rd to Robbins Rd	2710	3912	17558	03912-17558	2,563	0.95	0.054	0.252	Yes	-147	21,512
129	Calvine Rd	Vintage Park Dr to Elk Grove Florin Rd	2980	3912	17636	03912-17636	2,349	0.79	0.212	0.244	Yes	-631	397,794
130	Calvine Rd	Waterman Rd to Bradshaw Rd	1980	5940	16999	05940-16999	1,146	0.58	0.421	0.28	No	-834	694,967
131	Calvine Rd	Elk Grove Florin Rd to Waterman Rd	2450	3912	17635	03912-17635	1,511	0.62	0.383	0.26	No	-939	882,343
132	Elk Grove Florin Rd	Sheldon Rd to Calvine Rd	2570	3922	16942	03922-16942	2,259	0.88	0.121	0.255	Yes	-311	96,926
133	Bader Rd	Sheldon Rd to Mix Ln	490	17013	17590	17013-17590	469	0.96	0.043	0.52	Yes	-21	450
134	Sheldon Rd	Garrity Dr/Power Inn Rd to Elk Grove Florin Rd	2100	4703	17645	04703-17645	2,224	1.06	0.059	0.275	Yes	124	15,490
135	Garrity Dr	Alberton Pl to Sheldon Rd	90	17559	4703	17559-04703	62	0.69	0.314	0.683	Yes	-28	798
136	Power Inn Rd	Sheldon Rd to Vista Brooks Dr/Villeneuve Dr	910	4703	16921	04703-16921	1,026	1.13	0.128	0.38	Yes	116	13,508
137	Sheldon Rd	E Stockton Blvd to Garrity Dr/Power Inn Rd	2650	17506	4703	17506-04703	2,372	0.90	0.105	0.252	Yes	-278	77,048
138	E Stockton Blvd	Sheldon Rd to E Stockton Blvd	520	17506	17572	17506-17572	320	0.62	0.384	0.475	Yes	-200	39,915
139	Sheldon Rd	SR-99 NB Ramps to E Stockton Blvd	2960	5652	3920	05652-03920	2,471	0.83	0.165	0.244	Yes	-489	238,930
141	Sheldon Rd	Lewist Stein Rd/Jocelyn Way to SR-99 NB Ramps	2440	3919	17660	03919-17660	1,901	0.78	0.221	0.26	Yes	-539	290,706
142	Sheldon Rd	Bruceville Rd to Lewis Stein Rd/Jocelyn Way	1850	3918	3931	03918-03931	976	0.53	0.472	0.286	No	-874	763,453
143	Lewis Stein Rd	W Stockton Blvd to Sheldon Rd	1110	13667	17659	13667-17659	769	0.69	0.307	0.359	Yes	-341	116,056

ELK GROVE GENERAL PLAN UPDATE
 PM VALIDATION

ID	Road	Segment	Count Total	A Node	B Node	ID	Model Volume Total	Model / Count	Percent Deviation	Max Percent Deviation	Within Deviaton	Model - Count	Difference Squared
144	Jocelyn Way	Sheldon Rd to Praline Way	230	3919	17560	03919-17560	372	1.62	0.618	0.63	Yes	142	20,207
145	Bond Rd	Elk Crest Dr to Elk Grove Florin Rd	2850	17561	17150	17561-17150	3,105	1.09	0.089	0.248	Yes	255	64,793
147	Elk Crest Dr	Bond Rd to Elk Grove Marketplace	210	17561	17565	17561-17565	297	1.41	0.413	0.63	Yes	87	7,505
148	Bond Rd	E Stockton Blvd to Elk Crest Dr	4534	5648	17561	05648-17561	3,737	0.82	0.176	0.209	Yes	-797	635,243
149	E Stockton Blvd	Banff Vista Dr to Bond Rd	390	17566	14296	17566-14296	272	0.70	0.302	0.52	Yes	-118	13,904
150	E Stockton Blvd	Bond Rd to Sheldon Rd	590	5648	13670	05648-13670	750	1.27	0.271	0.475	Yes	160	25,558
151	Bond Rd	Laguna Springs Dr to SR-99 Ramps	5067	4057	5649	04057-05649	5,013	0.99	0.011	0.199	Yes	-54	2,881
153	Bond Rd	SR-99 NB Ramps to E Stockton Blvd	2860	9308	9310	09308-09310	3,310	1.16	0.157	0.248	Yes	450	202,763
154	Calvine Rd	Vineyard Rd to Excelsior Rd	970	5925	17510	05925-17510	503	0.52	0.482	0.38	No	-467	218,539
155	Laguna Springs Dr	Laguna Palms Way to Laguna Blvd	1350	4057	16823	04057-16823	1,128	0.84	0.165	0.325	Yes	-222	49,504
156	Elk Grove Florin Rd	Elk Grove Blvd to E Stockton Blvd	1337	3932	17651	03932-17651	1,243	0.93	0.070	0.325	Yes	-94	8,800
157	Hood Franklin Rd	I-5 NB Ramps to Franklin Blvd	545	5008	17702	05008-17702	997	1.83	0.829	0.475	No	452	203,905
158	Whitelock Rd	Big Horn Blvd to W Stockton Blvd	266	13661	16113	13661-16113	133	0.50	0.501	0.575	Yes	-133	17,727
			208,514					188,966	Total				
								145	Total Count				
								124	Links Within Deviation				
								21	Links Outside Deviation				
								0.91	Model/Count Ratio				
								86%	Percent within Caltrans Deviation (>75%)				
								25%	Percent Root Mean Square Error (<40%)				
								0.96	Correlation Coefficeint (>0.88)				