

## **APPENDIX J: TRAFFIC AND TRANSPORTATION**



## **J.1 – TRAFFIC COUNTS**



# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-001 Mace Boulevard-EI Macero Drive.ppd  
 Date : 10/15/2014

## Unshifted Count = All Vehicles

START TIME	Mace Boulevard Southbound					EI Macero Drive Westbound					Mace Boulevard Northbound					EI Macero Drive Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	9	32	0	1	42	0	3	14	0	17	3	31	0	0	34	3	0	2	0	5	98	1
07:15	13	23	2	0	38	0	1	15	0	16	0	41	0	0	41	5	0	0	0	5	100	0
07:30	16	30	0	0	46	0	3	16	0	19	0	43	1	0	44	7	0	1	0	8	117	0
07:45	10	27	5	0	42	0	1	19	0	20	2	58	0	0	60	14	0	1	0	15	137	0
Total	48	112	7	1	168	0	8	64	0	72	5	173	1	0	179	29	0	4	0	33	452	1
08:00	13	28	0	0	41	1	3	30	0	34	0	79	0	0	79	10	2	2	0	14	168	0
08:15	14	36	0	0	50	0	3	33	0	36	5	63	2	0	70	10	0	1	0	11	167	0
08:30	16	41	5	0	62	1	0	28	0	29	5	63	0	0	68	8	0	3	0	11	170	0
08:45	14	35	1	0	50	0	2	17	0	19	3	57	1	0	61	6	1	1	0	8	138	0
Total	57	140	6	0	203	2	8	108	0	118	13	262	3	0	278	34	3	7	0	44	643	0
16:00	35	27	5	0	67	0	2	28	0	30	2	49	0	0	51	2	0	2	0	4	152	0
16:15	13	34	3	0	50	0	2	24	0	26	0	33	0	0	33	4	1	1	0	6	115	0
16:30	15	42	6	1	64	1	1	24	0	26	1	59	1	0	61	1	1	1	0	3	154	1
16:45	29	54	8	0	91	0	2	17	0	19	0	54	1	0	55	4	2	1	0	7	172	0
Total	92	157	22	1	272	1	7	93	0	101	3	195	2	0	200	11	4	5	0	20	593	1
17:00	22	64	1	0	87	0	1	15	0	16	1	51	0	0	52	7	0	1	0	8	163	0
17:15	24	57	9	0	90	2	2	20	0	24	1	41	1	0	43	2	1	0	0	3	160	0
17:30	25	58	9	0	92	0	0	10	0	10	4	30	0	1	35	6	2	2	0	10	147	1
17:45	23	40	2	0	65	1	0	16	0	17	1	34	0	0	35	2	0	2	0	4	121	0
Total	94	219	21	0	334	3	3	61	0	67	7	156	1	1	165	17	3	5	0	25	591	1
Grand Total	291	628	56	2	977	6	26	326	0	358	28	786	7	1	822	91	10	21	0	122	2279	3
Apprch %	29.8%	64.3%	5.7%	0.2%		1.7%	7.3%	91.1%	0.0%		3.4%	95.6%	0.9%	0.1%		74.6%	8.2%	17.2%	0.0%			
Total %	12.8%	27.6%	2.5%	0.1%	42.9%	0.3%	1.1%	14.3%	0.0%	15.7%	1.2%	34.5%	0.3%	0.0%	36.1%	4.0%	0.4%	0.9%	0.0%	5.4%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-002 Mace Boulevard-Cowell Boulevard.ppd

Date : 10/15/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Mace Boulevard Southbound					Cowell Boulevard Westbound					Mace Boulevard Northbound					Cowell Boulevard Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	6	38	8	0	52	2	5	19	0	26	2	40	2	0	44	23	5	3	0	31	153	0
07:15	10	37	10	0	57	0	6	22	0	28	2	64	0	0	66	31	10	3	0	44	195	0
07:30	14	35	10	0	59	2	11	22	0	35	3	53	5	0	61	43	7	5	0	55	210	0
07:45	19	35	13	0	67	2	7	27	0	36	4	81	9	0	94	33	10	2	0	45	242	0
Total	49	145	41	0	235	6	29	90	0	125	11	238	16	0	265	130	32	13	0	175	800	0
08:00	23	35	6	0	64	6	21	30	0	57	4	79	31	0	114	33	41	2	0	76	311	0
08:15	17	38	12	0	67	14	36	50	0	100	1	85	24	0	110	36	31	2	0	69	346	0
08:30	12	44	11	0	67	9	33	34	0	76	5	87	6	0	98	31	3	7	0	41	282	0
08:45	17	45	12	0	74	5	11	22	0	38	6	72	0	0	78	35	9	2	0	46	236	0
Total	69	162	41	0	272	34	101	136	0	271	16	323	61	0	400	135	84	13	0	232	1175	0
16:00	35	51	27	0	113	1	7	16	0	24	4	67	3	0	74	22	9	7	0	38	249	0
16:15	28	45	29	0	102	3	12	19	0	34	3	60	6	0	69	22	17	9	0	48	253	0
16:30	33	58	25	0	116	4	16	16	0	36	3	80	2	0	85	21	16	5	0	42	279	0
16:45	44	73	28	0	145	8	8	33	0	49	7	61	6	0	74	28	12	7	0	47	315	0
Total	140	227	109	0	476	16	43	84	0	143	17	268	17	0	302	93	54	28	0	175	1096	0
17:00	34	75	38	0	147	5	7	30	0	42	5	61	4	0	70	19	20	12	0	51	310	0
17:15	37	72	43	0	152	4	19	26	0	49	3	58	6	0	67	34	28	10	0	72	340	0
17:30	28	76	38	0	142	7	12	21	0	40	6	38	5	0	49	17	22	11	0	50	281	0
17:45	40	63	34	0	137	4	16	28	0	48	6	41	4	0	51	27	13	7	0	47	283	0
Total	139	286	153	0	578	20	54	105	0	179	20	198	19	0	237	97	83	40	0	220	1214	0
Grand Total	397	820	344	0	1561	76	227	415	0	718	64	1027	113	0	1204	455	253	94	0	802	4285	0
Apprch %	25.4%	52.5%	22.0%	0.0%		10.6%	31.6%	57.8%	0.0%		5.3%	85.3%	9.4%	0.0%		56.7%	31.5%	11.7%	0.0%			
Total %	9.3%	19.1%	8.0%	0.0%	36.4%	1.8%	5.3%	9.7%	0.0%	16.8%	1.5%	24.0%	2.6%	0.0%	28.1%	10.6%	5.9%	2.2%	0.0%	18.7%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-003 Mace Boulevard-Chiles Road.ppd

Date : 10/15/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Mace Boulevard Southbound					Chiles Road Westbound					Mace Boulevard Northbound					Chiles Road Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	17	52	41	0	110	4	6	39	0	49	3	85	5	0	93	75	12	12	0	99	351	0
07:15	23	46	41	0	110	5	2	48	0	55	4	106	18	0	128	67	23	24	0	114	407	0
07:30	23	58	65	2	148	4	8	53	0	65	2	127	11	0	140	101	17	19	0	137	490	2
07:45	37	53	66	0	156	2	6	49	0	57	8	135	16	0	159	100	33	22	0	155	527	0
<b>Total</b>	<b>100</b>	<b>209</b>	<b>213</b>	<b>2</b>	<b>524</b>	<b>15</b>	<b>22</b>	<b>189</b>	<b>0</b>	<b>226</b>	<b>17</b>	<b>453</b>	<b>50</b>	<b>0</b>	<b>520</b>	<b>343</b>	<b>85</b>	<b>77</b>	<b>0</b>	<b>505</b>	<b>1775</b>	<b>2</b>
08:00	33	52	66	0	151	5	12	61	0	78	5	133	15	0	153	97	29	19	0	145	527	0
08:15	33	62	57	2	154	1	23	97	0	121	11	137	7	0	155	125	30	25	0	180	610	2
08:30	36	64	61	1	162	7	14	74	0	95	3	161	11	0	175	105	23	24	0	152	584	1
08:45	31	58	84	0	173	8	12	70	0	90	7	121	10	0	138	106	19	29	0	154	555	0
<b>Total</b>	<b>133</b>	<b>236</b>	<b>268</b>	<b>3</b>	<b>640</b>	<b>21</b>	<b>61</b>	<b>302</b>	<b>0</b>	<b>384</b>	<b>26</b>	<b>552</b>	<b>43</b>	<b>0</b>	<b>621</b>	<b>433</b>	<b>101</b>	<b>97</b>	<b>0</b>	<b>631</b>	<b>2276</b>	<b>3</b>
16:00	35	95	50	0	180	8	15	56	0	79	2	104	13	0	119	94	43	28	0	165	543	0
16:15	32	79	47	3	161	3	9	35	0	47	2	73	11	0	86	93	39	24	0	156	450	3
16:30	45	100	63	3	211	11	12	54	0	77	4	109	20	0	133	99	39	21	0	159	580	3
16:45	46	107	53	0	206	10	8	46	0	64	2	87	22	0	111	99	80	33	0	212	593	0
<b>Total</b>	<b>158</b>	<b>381</b>	<b>213</b>	<b>6</b>	<b>758</b>	<b>32</b>	<b>44</b>	<b>191</b>	<b>0</b>	<b>267</b>	<b>10</b>	<b>373</b>	<b>66</b>	<b>0</b>	<b>449</b>	<b>385</b>	<b>201</b>	<b>106</b>	<b>0</b>	<b>692</b>	<b>2166</b>	<b>6</b>
17:00	53	128	69	0	250	12	10	50	0	72	10	99	26	0	135	138	34	30	0	202	659	0
17:15	46	116	101	0	263	8	9	49	0	66	5	113	19	0	137	114	44	46	0	204	670	0
17:30	41	116	80	0	237	8	2	52	0	62	9	73	17	0	99	96	35	36	0	167	565	0
17:45	45	113	67	0	225	6	5	55	0	66	4	93	16	0	113	112	45	36	0	193	597	0
<b>Total</b>	<b>185</b>	<b>473</b>	<b>317</b>	<b>0</b>	<b>975</b>	<b>34</b>	<b>26</b>	<b>206</b>	<b>0</b>	<b>266</b>	<b>28</b>	<b>378</b>	<b>78</b>	<b>0</b>	<b>484</b>	<b>460</b>	<b>158</b>	<b>148</b>	<b>0</b>	<b>766</b>	<b>2491</b>	<b>0</b>
<b>Grand Total</b>	<b>576</b>	<b>1299</b>	<b>1011</b>	<b>11</b>	<b>2897</b>	<b>102</b>	<b>153</b>	<b>888</b>	<b>0</b>	<b>1143</b>	<b>81</b>	<b>1756</b>	<b>237</b>	<b>0</b>	<b>2074</b>	<b>1621</b>	<b>545</b>	<b>428</b>	<b>0</b>	<b>2594</b>	<b>8708</b>	<b>11</b>
Apprch %	19.9%	44.8%	34.9%	0.4%		8.9%	13.4%	77.7%	0.0%		3.9%	84.7%	11.4%	0.0%		62.5%	21.0%	16.5%	0.0%			
Total %	6.6%	14.9%	11.6%	0.1%	33.3%	1.2%	1.8%	10.2%	0.0%	13.1%	0.9%	20.2%	2.7%	0.0%	23.8%	18.6%	6.3%	4.9%	0.0%	29.8%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-004 Mace Boulevard-I-80 WB Ramps.ppd

Date : 10/15/2014

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Mace Boulevard Southbound					I-80 WB Off-Ramp Westbound					Mace Boulevard Northbound					I-80 WB On-Ramp Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	168	43	0	211	66	1	105	0	172	36	63	0	0	99	0	0	0	0	0	482	0
07:15	0	227	28	0	255	67	0	99	0	166	59	66	0	0	125	0	0	0	0	0	546	0
07:30	0	238	40	0	278	89	0	118	0	207	95	72	0	0	167	0	0	0	0	0	652	0
07:45	0	247	45	0	292	85	0	139	0	224	86	95	0	0	181	0	0	0	0	0	697	0
Total	0	880	156	0	1036	307	1	461	0	769	276	296	0	0	572	0	0	0	0	0	2377	0
08:00	0	223	44	0	267	73	0	155	0	228	76	111	0	0	187	0	0	0	0	0	682	0
08:15	0	247	42	0	289	79	0	129	0	208	75	154	0	0	229	0	0	0	0	0	726	0
08:30	0	230	45	0	275	76	1	119	0	196	113	155	0	0	268	0	0	0	0	0	739	0
08:45	0	241	41	0	282	66	0	134	0	200	108	119	0	0	227	0	0	0	0	0	709	0
Total	0	941	172	0	1113	294	1	537	0	832	372	539	0	0	911	0	0	0	0	0	2856	0
16:00	0	227	35	0	262	66	0	116	0	182	70	118	0	0	188	0	0	0	0	0	632	0
16:15	0	178	40	0	218	88	0	141	0	229	45	96	0	0	141	0	0	0	0	0	588	0
16:30	0	230	59	0	289	96	0	158	0	254	49	146	0	0	195	0	0	0	0	0	738	0
16:45	0	196	45	0	241	111	0	199	0	310	53	138	0	0	191	0	0	0	0	0	742	0
Total	0	831	179	0	1010	361	0	614	0	975	217	498	0	0	715	0	0	0	0	0	2700	0
17:00	0	236	63	0	299	119	0	176	0	295	75	137	0	0	212	0	0	0	0	0	806	0
17:15	0	300	46	0	346	117	1	203	0	321	51	152	0	0	203	0	0	0	0	0	870	0
17:30	0	212	51	0	263	117	0	199	0	316	53	105	0	0	158	0	0	0	0	0	737	0
17:45	0	202	41	0	243	112	0	203	0	315	70	132	0	0	202	0	0	0	0	0	760	0
Total	0	950	201	0	1151	465	1	781	0	1247	249	526	0	0	775	0	0	0	0	0	3173	0
Grand Total	0	3602	708	0	4310	1427	3	2393	0	3823	1114	1859	0	0	2973	0	0	0	0	0	11106	0
Apprch %	0.0%	83.6%	16.4%	0.0%		37.3%	0.1%	62.6%	0.0%		37.5%	62.5%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%			
Total %	0.0%	32.4%	6.4%	0.0%	38.8%	12.8%	0.0%	21.5%	0.0%	34.4%	10.0%	16.7%	0.0%	0.0%	26.8%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-005 Mace Boulevard-2nd Street.ppd

Date : 10/15/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Mace Boulevard Southbound					CR 32A Westbound					Mace Boulevard Northbound					2nd Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	5	152	0	0	157	5	16	4	0	25	114	54	9	0	177	1	2	45	2	50	409	2
07:15	3	224	5	0	232	6	5	3	0	14	101	57	6	0	164	5	0	45	1	51	461	1
07:30	8	214	5	0	227	2	3	8	0	13	111	79	4	0	194	4	3	63	2	72	506	2
07:45	8	211	17	0	236	2	21	2	0	25	135	92	2	0	229	3	7	62	3	75	565	3
Total	24	801	27	0	852	15	45	17	0	77	461	282	21	0	764	13	12	215	8	248	1941	8
08:00	8	204	12	1	225	4	16	2	0	22	136	128	5	0	269	6	3	56	2	67	583	3
08:15	11	235	19	1	266	2	14	3	0	19	144	141	4	0	289	5	4	63	1	73	647	2
08:30	12	216	26	1	255	2	9	4	0	15	147	115	9	0	271	10	4	75	0	89	630	1
08:45	2	191	9	1	203	6	9	2	0	17	140	113	4	0	257	8	3	82	2	95	572	3
Total	33	846	66	4	949	14	48	11	0	73	567	497	22	0	1086	29	14	276	5	324	2432	9
16:00	15	121	26	1	163	12	7	4	0	23	104	138	11	0	253	18	29	124	6	177	616	7
16:15	2	108	21	0	131	8	5	4	0	17	112	120	9	0	241	24	24	112	5	165	554	5
16:30	19	116	25	5	165	13	3	9	0	25	106	177	9	0	292	30	41	158	6	235	717	11
16:45	10	120	19	1	150	7	6	11	0	24	126	207	17	0	350	25	28	108	12	173	697	13
Total	46	465	91	7	609	40	21	28	0	89	448	642	46	0	1136	97	122	502	29	750	2584	36
17:00	25	138	17	4	184	11	10	7	0	28	101	202	5	0	308	28	41	167	14	250	770	18
17:15	18	147	22	3	190	11	7	13	0	31	127	217	19	0	363	22	31	163	7	223	807	10
17:30	11	115	25	6	157	5	7	14	0	26	107	190	8	0	305	22	18	135	11	186	674	17
17:45	12	121	25	2	160	11	3	10	0	24	101	218	8	0	327	18	19	113	8	158	669	10
Total	66	521	89	15	691	38	27	44	0	109	436	827	40	0	1303	90	109	578	40	817	2920	55
Grand Total	169	2633	273	26	3101	107	141	100	0	348	1912	2248	129	0	4289	229	257	1571	82	2139	9877	108
Apprch %	5.4%	84.9%	8.8%	0.8%		30.7%	40.5%	28.7%	0.0%		44.6%	52.4%	3.0%	0.0%		10.7%	12.0%	73.4%	3.8%			
Total %	1.7%	26.7%	2.8%	0.3%	31.4%	1.1%	1.4%	1.0%	0.0%	3.5%	19.4%	22.8%	1.3%	0.0%	43.4%	2.3%	2.6%	15.9%	0.8%	21.7%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-006 Mace Boulevard-Alhambra Drive.ppd

Date : 10/15/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Mace Boulevard Southbound					Westbound					Mace Boulevard Northbound					Alhambra Drive Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	102	0	0	102	0	0	0	0	0	15	42	0	0	57	0	0	61	0	61	220	0
07:15	0	130	0	0	130	0	0	0	0	0	15	56	0	0	71	1	0	93	0	94	295	0
07:30	0	135	2	0	137	0	0	0	0	0	25	63	0	0	88	1	0	85	0	86	311	0
07:45	0	143	2	0	145	0	0	0	0	0	31	70	0	0	101	0	0	85	0	85	331	0
<b>Total</b>	0	510	4	0	514	0	0	0	0	0	86	231	0	0	317	2	0	324	0	326	1157	0
08:00	0	147	1	0	148	0	0	0	0	0	32	102	0	0	134	5	0	75	0	80	362	0
08:15	0	141	1	0	142	0	0	0	0	0	46	109	0	1	156	3	0	112	0	115	413	1
08:30	0	153	4	0	157	0	0	0	0	0	31	96	0	0	127	2	0	97	0	99	383	0
08:45	0	147	10	1	158	0	0	0	0	0	41	85	0	1	127	1	0	52	0	53	338	2
<b>Total</b>	0	588	16	1	605	0	0	0	0	0	150	392	0	2	544	11	0	336	0	347	1496	3
16:00	0	106	0	0	106	0	0	0	0	0	41	110	0	1	152	1	0	41	0	42	300	1
16:15	0	78	1	0	79	0	0	0	0	0	37	118	0	0	155	2	0	38	0	40	274	0
16:30	0	102	1	0	103	0	0	0	0	0	64	159	0	0	223	1	0	50	0	51	377	0
16:45	0	112	3	0	115	0	0	0	0	0	69	162	0	0	231	1	0	36	0	37	383	0
<b>Total</b>	0	398	5	0	403	0	0	0	0	0	211	549	0	1	761	5	0	165	0	170	1334	1
17:00	0	120	4	0	124	0	0	0	0	0	72	184	0	0	256	3	0	47	0	50	430	0
17:15	0	126	4	0	130	0	0	0	0	0	81	176	0	0	257	2	0	46	0	48	435	0
17:30	0	99	1	0	100	0	0	0	0	0	74	154	0	0	228	2	0	46	0	48	376	0
17:45	0	110	1	0	111	0	0	0	0	0	70	181	0	0	251	2	0	37	0	39	401	0
<b>Total</b>	0	455	10	0	465	0	0	0	0	0	297	695	0	0	992	9	0	176	0	185	1642	0
<b>Grand Total</b>	0	1951	35	1	1987	0	0	0	0	0	744	1867	0	3	2614	27	0	1001	0	1028	5629	4
Apprch %	0.0%	98.2%	1.8%	0.1%		0.0%	0.0%	0.0%	0.0%		28.5%	71.4%	0.0%	0.1%		2.6%	0.0%	97.4%	0.0%			
Total %	0.0%	34.7%	0.6%	0.0%	35.3%	0.0%	0.0%	0.0%	0.0%	0.0%	13.2%	33.2%	0.0%	0.1%	46.4%	0.5%	0.0%	17.8%	0.0%	18.3%	100.0%	



# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-007 Faraday Avenue-2nd Street.ppd  
 Date : 10/15/2014

## Unshifted Count = All Vehicles

START TIME	Faraday Avenue (Target Driveway) Southbound					2nd Street Westbound					Fermi Place Northbound					2nd Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	1	0	0	0	1	3	121	0	2	126	0	0	1	0	1	0	52	0	0	52	180	2
07:15	0	0	0	0	0	4	93	5	5	107	1	0	0	0	1	1	45	0	0	46	154	5
07:30	2	0	0	0	2	3	117	3	7	130	0	0	1	0	1	1	57	0	0	58	191	7
07:45	3	0	0	0	3	3	142	10	8	163	1	0	1	0	2	1	61	1	0	63	231	8
Total	6	0	0	0	6	13	473	18	22	526	2	0	3	0	5	3	215	1	0	219	756	22
08:00	7	0	1	0	8	9	125	14	10	158	0	0	2	0	2	3	61	1	0	65	233	10
08:15	9	1	5	0	15	16	121	20	16	173	2	0	3	0	5	6	56	1	0	63	256	16
08:30	16	0	8	0	24	13	119	33	5	170	2	0	3	0	5	8	58	1	0	67	266	5
08:45	22	1	11	0	34	4	127	17	7	155	3	1	1	0	5	7	68	2	0	77	271	7
Total	54	2	25	0	81	42	492	84	38	656	7	1	9	0	17	24	243	5	0	272	1026	38
16:00	36	1	16	0	53	6	72	32	4	114	7	1	8	0	16	18	138	3	0	159	342	4
16:15	42	1	22	0	65	5	68	32	4	109	1	0	5	0	6	18	126	2	0	146	326	4
16:30	51	2	18	0	71	7	68	38	8	121	0	2	6	0	8	16	173	0	0	189	389	8
16:45	44	1	23	0	68	7	95	34	2	138	1	0	4	0	5	24	126	1	0	151	362	2
Total	173	5	79	0	257	25	303	136	18	482	9	3	23	0	35	76	563	6	0	645	1419	18
17:00	43	2	11	0	56	8	76	40	12	136	3	0	7	0	10	26	187	3	0	216	418	12
17:15	47	2	11	0	60	7	81	35	5	128	7	4	10	0	21	31	148	2	0	181	390	5
17:30	46	2	17	0	65	7	72	26	4	109	3	2	3	0	8	21	122	2	0	145	327	4
17:45	58	1	19	0	78	4	87	32	8	131	7	0	12	0	19	5	101	10	0	116	344	8
Total	194	7	58	0	259	26	316	133	29	504	20	6	32	0	58	83	558	17	0	658	1479	29
Grand Total	427	14	162	0	603	106	1584	371	107	2168	38	10	67	0	115	186	1579	29	0	1794	4680	107
Apprch %	70.8%	2.3%	26.9%	0.0%		4.9%	73.1%	17.1%	4.9%		33.0%	8.7%	58.3%	0.0%		10.4%	88.0%	1.6%	0.0%			
Total %	9.1%	0.3%	3.5%	0.0%	12.9%	2.3%	33.8%	7.9%	2.3%	46.3%	0.8%	0.2%	1.4%	0.0%	2.5%	4.0%	33.7%	0.6%	0.0%	38.3%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-009 Pena Drive-2nd Street.ppd

Date : 10/15/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Pena Drive Southbound					2nd Street Westbound					Northbound					2nd Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	28	0	2	0	30	0	42	21	0	63	0	0	0	0	0	3	33	0	0	36	129	0
07:15	9	0	5	0	14	0	64	20	0	84	0	0	0	0	0	2	48	0	0	50	148	0
07:30	21	0	4	0	25	0	61	15	0	76	0	0	0	0	0	2	52	0	0	54	155	0
07:45	19	0	7	0	26	0	63	29	0	92	0	0	0	0	0	5	64	0	0	69	187	0
<b>Total</b>	<b>77</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>95</b>	<b>0</b>	<b>230</b>	<b>85</b>	<b>0</b>	<b>315</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>197</b>	<b>0</b>	<b>0</b>	<b>209</b>	<b>619</b>	<b>0</b>
08:00	30	0	3	0	33	0	56	16	0	72	0	0	0	0	0	8	71	0	0	79	184	0
08:15	19	0	10	0	29	0	74	21	0	95	0	0	0	0	0	13	66	0	0	79	203	0
08:30	29	0	4	0	33	0	78	24	0	102	0	0	0	0	0	11	60	0	0	71	206	0
08:45	12	0	14	0	26	0	88	19	0	107	0	0	0	0	0	10	72	0	0	82	215	0
<b>Total</b>	<b>90</b>	<b>0</b>	<b>31</b>	<b>0</b>	<b>121</b>	<b>0</b>	<b>296</b>	<b>80</b>	<b>0</b>	<b>376</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>42</b>	<b>269</b>	<b>0</b>	<b>0</b>	<b>311</b>	<b>808</b>	<b>0</b>
16:00	29	0	16	0	45	0	75	19	0	94	0	0	0	0	0	22	96	0	0	118	257	0
16:15	24	0	15	0	39	0	85	22	0	107	0	0	0	0	0	12	92	0	0	104	250	0
16:30	33	0	13	0	46	0	84	32	0	116	0	0	0	0	0	9	122	0	0	131	293	0
16:45	17	0	9	0	26	0	101	30	0	131	0	0	0	0	0	13	107	0	0	120	277	0
<b>Total</b>	<b>103</b>	<b>0</b>	<b>53</b>	<b>0</b>	<b>156</b>	<b>0</b>	<b>345</b>	<b>103</b>	<b>0</b>	<b>448</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>56</b>	<b>417</b>	<b>0</b>	<b>0</b>	<b>473</b>	<b>1077</b>	<b>0</b>
17:00	39	0	12	0	51	0	109	37	0	146	0	0	0	0	0	22	131	0	0	153	350	0
17:15	24	0	12	0	36	0	113	35	0	148	0	0	0	0	0	17	121	0	0	138	322	0
17:30	24	0	6	0	30	0	79	29	0	108	0	0	0	0	0	19	84	0	0	103	241	0
17:45	22	0	13	1	36	0	88	29	0	117	0	0	0	0	0	8	86	0	0	94	247	1
<b>Total</b>	<b>109</b>	<b>0</b>	<b>43</b>	<b>1</b>	<b>153</b>	<b>0</b>	<b>389</b>	<b>130</b>	<b>0</b>	<b>519</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>66</b>	<b>422</b>	<b>0</b>	<b>0</b>	<b>488</b>	<b>1160</b>	<b>1</b>
<b>Grand Total</b>	<b>379</b>	<b>0</b>	<b>145</b>	<b>1</b>	<b>525</b>	<b>0</b>	<b>1260</b>	<b>398</b>	<b>0</b>	<b>1658</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>176</b>	<b>1305</b>	<b>0</b>	<b>0</b>	<b>1481</b>	<b>3664</b>	<b>1</b>
Apprch %	72.2%	0.0%	27.6%	0.2%		0.0%	76.0%	24.0%	0.0%		0.0%	0.0%	0.0%	0.0%		11.9%	88.1%	0.0%	0.0%			
Total %	10.3%	0.0%	4.0%	0.0%	14.3%	0.0%	34.4%	10.9%	0.0%	45.3%	0.0%	0.0%	0.0%	0.0%	0.0%	4.8%	35.6%	0.0%	0.0%	40.4%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-010 Cantrill Drive-2nd Street.ppd

Date : 10/15/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Cantrill Drive Southbound					2nd Street Westbound					Northbound					2nd Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	15	0	1	0	16	0	30	17	0	47	0	0	0	0	0	1	30	0	0	31	94	0
07:15	21	0	3	0	24	0	48	17	0	65	0	0	0	0	0	3	33	0	0	36	125	0
07:30	17	0	2	0	19	0	38	26	0	64	0	0	0	0	0	1	36	0	0	37	120	0
07:45	28	0	8	0	36	0	50	16	0	66	0	0	0	0	0	2	45	0	0	47	149	0
<b>Total</b>	<b>81</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>95</b>	<b>0</b>	<b>166</b>	<b>76</b>	<b>0</b>	<b>242</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>144</b>	<b>0</b>	<b>0</b>	<b>151</b>	<b>488</b>	<b>0</b>
08:00	29	0	5	0	34	0	41	11	0	52	0	0	0	0	0	4	58	0	0	62	148	0
08:15	21	0	3	0	24	0	57	22	0	79	0	0	0	0	0	2	64	0	0	66	169	0
08:30	11	0	7	0	18	0	69	16	0	85	0	0	0	0	0	1	60	0	0	61	164	0
08:45	24	0	9	0	33	0	70	25	0	95	0	0	0	0	0	5	64	0	0	69	197	0
<b>Total</b>	<b>85</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>109</b>	<b>0</b>	<b>237</b>	<b>74</b>	<b>0</b>	<b>311</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>246</b>	<b>0</b>	<b>0</b>	<b>258</b>	<b>678</b>	<b>0</b>
16:00	20	0	7	0	27	0	72	24	0	96	0	0	0	0	0	3	96	0	0	99	222	0
16:15	22	0	5	0	27	0	77	27	1	105	0	0	0	0	0	4	81	0	0	85	217	1
16:30	33	0	5	0	38	0	82	25	0	107	0	0	0	0	0	3	106	0	0	109	254	0
16:45	23	0	8	0	31	0	87	29	0	116	0	0	0	0	0	7	100	0	0	107	254	0
<b>Total</b>	<b>98</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>123</b>	<b>0</b>	<b>318</b>	<b>105</b>	<b>1</b>	<b>424</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>383</b>	<b>0</b>	<b>0</b>	<b>400</b>	<b>947</b>	<b>1</b>
17:00	21	0	5	0	26	0	105	32	0	137	0	0	0	0	0	9	122	0	0	131	294	0
17:15	30	0	5	0	35	0	95	28	0	123	0	0	0	0	0	8	112	0	1	121	279	1
17:30	23	0	6	0	29	0	70	21	0	91	0	0	0	0	0	6	80	0	0	86	206	0
17:45	20	0	13	0	33	0	83	27	0	110	0	0	0	0	0	4	82	0	0	86	229	0
<b>Total</b>	<b>94</b>	<b>0</b>	<b>29</b>	<b>0</b>	<b>123</b>	<b>0</b>	<b>353</b>	<b>108</b>	<b>0</b>	<b>461</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>27</b>	<b>396</b>	<b>0</b>	<b>1</b>	<b>424</b>	<b>1008</b>	<b>1</b>
<b>Grand Total</b>	<b>358</b>	<b>0</b>	<b>92</b>	<b>0</b>	<b>450</b>	<b>0</b>	<b>1074</b>	<b>363</b>	<b>1</b>	<b>1438</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>63</b>	<b>1169</b>	<b>0</b>	<b>1</b>	<b>1233</b>	<b>3121</b>	<b>2</b>
Apprch %	79.6%	0.0%	20.4%	0.0%		0.0%	74.7%	25.2%	0.1%		0.0%	0.0%	0.0%	0.0%		5.1%	94.8%	0.0%	0.1%			
Total %	11.5%	0.0%	2.9%	0.0%	14.4%	0.0%	34.4%	11.6%	0.0%	46.1%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	37.5%	0.0%	0.0%	39.5%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-012 Harper Jr. Highschool Access-E. Covell Boule  
 Date : 10/15/2014

## Unshifted Count = All Vehicles

START TIME	Southbound					E. Covell Boulevard Westbound					Harper Jr. Highschool Access Northbound					E. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	2	42	0	0	44	0	0	0	0	0	0	103	0	0	103	147	0
07:15	0	0	0	0	0	0	55	0	0	55	2	0	0	0	2	0	143	0	0	143	200	0
07:30	0	0	0	0	0	7	57	0	0	64	3	0	0	0	3	0	129	3	1	133	200	1
07:45	0	0	0	0	0	3	62	0	0	65	2	0	0	0	2	0	141	9	0	150	217	0
<b>Total</b>	0	0	0	0	0	12	216	0	0	228	7	0	0	0	7	0	516	12	1	529	764	1
08:00	0	0	0	0	0	17	80	0	0	97	1	0	0	0	1	0	144	15	0	159	257	0
08:15	0	0	0	0	0	8	107	0	0	115	4	0	1	0	5	0	132	10	0	142	262	0
08:30	0	0	0	0	0	6	95	0	0	101	2	0	0	0	2	0	154	6	0	160	263	0
08:45	0	0	0	0	0	9	79	0	0	88	1	0	0	0	1	0	147	9	0	156	245	0
<b>Total</b>	0	0	0	0	0	40	361	0	0	401	8	0	1	0	9	0	577	40	0	617	1027	0
16:00	0	0	0	0	0	3	121	0	0	124	6	0	0	0	6	0	100	3	0	103	233	0
16:15	0	0	0	0	0	3	112	0	0	115	2	0	1	0	3	0	76	2	0	78	196	0
16:30	0	0	0	0	0	4	154	0	0	158	4	0	0	0	4	0	101	5	0	106	268	0
16:45	0	0	0	0	0	3	154	0	0	157	3	0	0	0	3	0	107	9	0	116	276	0
<b>Total</b>	0	0	0	0	0	13	541	0	0	554	15	0	1	0	16	0	384	19	0	403	973	0
17:00	0	0	0	0	0	14	178	0	0	192	26	0	4	0	30	0	103	17	0	120	342	0
17:15	0	0	0	0	0	7	160	0	0	167	18	0	3	0	21	0	110	8	0	118	306	0
17:30	0	0	0	0	0	1	168	0	0	169	6	0	2	0	8	0	93	2	0	95	272	0
17:45	0	0	0	0	0	2	175	0	0	177	4	0	0	0	4	0	104	1	0	105	286	0
<b>Total</b>	0	0	0	0	0	24	681	0	0	705	54	0	9	0	63	0	410	28	0	438	1206	0
<b>Grand Total</b>	0	0	0	0	0	89	1799	0	0	1888	84	0	11	0	95	0	1887	99	1	1987	3970	1
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	4.7%	95.3%	0.0%	0.0%	47.6%	88.4%	0.0%	11.6%	0.0%	2.4%	0.0%	95.0%	5.0%	0.1%	50.1%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%	45.3%	0.0%	0.0%	47.6%	2.1%	0.0%	0.3%	0.0%	2.4%	0.0%	47.5%	2.5%	0.0%	50.1%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-013 Alhambra Drive-E. Covell Boulevard.ppd  
 Date : 10/15/2014

## Unshifted Count = All Vehicles

START TIME	Southbound					E. Covell Boulevard Westbound					Alhambra Drive Northbound					E. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	0	38	0	0	38	11	0	1	0	12	0	104	7	0	111	161	0
07:15	0	0	0	0	0	2	55	0	0	57	13	0	5	0	18	0	138	13	0	151	226	0
07:30	0	0	0	0	0	1	60	0	0	61	21	0	9	0	30	0	123	11	0	134	225	0
07:45	0	0	0	0	0	0	63	0	0	63	29	0	5	0	34	0	150	15	0	165	262	0
<b>Total</b>	0	0	0	0	0	3	216	0	0	219	74	0	20	0	94	0	515	46	0	561	874	0
08:00	0	0	0	0	0	0	83	0	0	83	39	0	4	0	43	0	154	23	0	177	303	0
08:15	0	0	0	0	0	2	109	0	0	111	52	0	2	0	54	0	137	35	0	172	337	0
08:30	0	0	0	0	0	2	95	0	0	97	56	0	5	0	61	0	157	26	0	183	341	0
08:45	0	0	0	0	0	1	78	0	0	79	12	0	2	0	14	0	153	31	0	184	277	0
<b>Total</b>	0	0	0	0	0	5	365	0	0	370	159	0	13	0	172	0	601	115	0	716	1258	0
16:00	0	0	0	0	0	6	115	0	0	121	12	0	3	0	15	0	101	25	0	126	262	0
16:15	0	0	0	0	0	3	112	0	0	115	24	0	0	0	24	0	74	23	0	97	236	0
16:30	0	0	0	0	0	5	154	0	0	159	13	0	2	0	15	0	104	25	0	129	303	0
16:45	0	0	0	0	0	3	156	0	0	159	19	0	5	0	24	0	111	31	0	142	325	0
<b>Total</b>	0	0	0	0	0	17	537	0	0	554	68	0	10	0	78	0	390	104	0	494	1126	0
17:00	0	0	0	0	0	4	200	0	0	204	34	0	9	0	43	0	121	31	0	152	399	0
17:15	0	0	0	0	0	12	167	0	0	179	39	0	2	0	41	0	110	38	0	148	368	0
17:30	0	0	0	0	0	8	158	0	0	166	27	0	2	0	29	0	90	34	0	124	319	0
17:45	0	0	0	0	0	7	176	0	0	183	26	0	0	0	26	0	105	31	0	136	345	0
<b>Total</b>	0	0	0	0	0	31	701	0	0	732	126	0	13	0	139	0	426	134	0	560	1431	0
<b>Grand Total</b>	0	0	0	0	0	56	1819	0	0	1875	427	0	56	0	483	0	1932	399	0	2331	4689	0
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	97.0%	0.0%	0.0%	40.0%	88.4%	0.0%	11.6%	0.0%	10.3%	0.0%	82.9%	17.1%	0.0%	49.7%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	38.8%	0.0%	0.0%	40.0%	9.1%	0.0%	1.2%	0.0%	10.3%	0.0%	41.2%	8.5%	0.0%	49.7%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-014 Monarch Lane-E. Covell Boulevard.ppd  
 Date : 10/15/2014

## Unshifted Count = All Vehicles

START TIME	Driveway Southbound					E. Covell Boulevard Westbound					Monarch Lane Northbound					E. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	0	50	0	0	50	3	0	5	0	8	0	101	5	0	106	164	0
07:15	0	0	0	0	0	3	65	0	0	68	10	0	12	0	22	0	144	4	0	148	238	0
07:30	1	0	0	0	1	1	77	0	0	78	3	0	10	0	13	0	131	3	0	134	226	0
07:45	0	0	1	0	1	1	90	0	0	91	7	0	8	0	15	0	149	5	0	154	261	0
<b>Total</b>	1	0	1	0	2	5	282	0	0	287	23	0	35	0	58	0	525	17	0	542	889	0
08:00	0	0	0	0	0	2	112	0	0	114	11	0	10	0	21	0	174	8	0	182	317	0
08:15	0	0	0	0	0	3	158	0	0	161	9	0	13	0	22	0	162	8	0	170	353	0
08:30	0	0	0	0	0	4	151	0	1	156	8	0	9	0	17	0	162	9	0	171	344	1
08:45	0	0	0	0	0	2	90	0	0	92	3	0	6	0	9	0	175	6	0	181	282	0
<b>Total</b>	0	0	0	0	0	11	511	0	1	523	31	0	38	0	69	0	673	31	0	704	1296	1
16:00	0	0	0	0	0	5	124	0	0	129	7	0	5	0	12	0	117	7	0	124	265	0
16:15	0	0	0	0	0	9	126	1	0	136	4	0	4	0	8	1	94	7	0	102	246	0
16:30	0	0	1	1	2	16	152	0	0	168	5	0	10	0	15	0	121	9	0	130	315	1
16:45	1	0	0	0	1	4	166	0	0	170	4	0	3	0	7	0	137	9	0	146	324	0
<b>Total</b>	1	0	1	1	3	34	568	1	0	603	20	0	22	0	42	1	469	32	0	502	1150	1
17:00	0	0	0	0	0	14	221	0	0	235	7	1	11	0	19	0	135	10	0	145	399	0
17:15	1	0	0	0	1	15	190	0	0	205	7	0	3	0	10	1	140	12	0	153	369	0
17:30	0	0	0	0	0	4	181	0	0	185	5	0	4	0	9	0	127	13	0	140	334	0
17:45	0	0	0	0	0	23	184	0	0	207	9	0	7	0	16	0	125	14	0	139	362	0
<b>Total</b>	1	0	0	0	1	56	776	0	0	832	28	1	25	0	54	1	527	49	0	577	1464	0
<b>Grand Total</b>	3	0	2	1	6	106	2137	1	1	2245	102	1	120	0	223	2	2194	129	0	2325	4799	2
Apprch %	50.0%	0.0%	33.3%	16.7%		4.7%	95.2%	0.0%	0.0%		45.7%	0.4%	53.8%	0.0%		0.1%	94.4%	5.5%	0.0%			
Total %	0.1%	0.0%	0.0%	0.0%	0.1%	2.2%	44.5%	0.0%	0.0%	46.8%	2.1%	0.0%	2.5%	0.0%	4.6%	0.0%	45.7%	2.7%	0.0%	48.4%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-015 Wright Boulevard-E. Covell Boulevard.ppd

Date : 10/15/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Wright Boulevard Southbound					E. Covell Boulevard Westbound					Northbound					E. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	24	0	8	0	32	0	46	8	0	54	0	0	0	0	0	7	81	0	0	88	174	0
07:15	36	0	12	0	48	0	72	4	0	76	0	0	0	0	0	3	108	0	0	111	235	0
07:30	32	0	9	0	41	0	73	3	0	76	0	0	0	0	0	4	103	0	0	107	224	0
07:45	43	0	22	0	65	0	93	10	0	103	0	0	0	0	0	3	119	0	0	122	290	0
Total	135	0	51	0	186	0	284	25	0	309	0	0	0	0	0	17	411	0	0	428	923	0
08:00	43	0	36	0	79	0	111	11	0	122	0	0	0	0	0	2	129	0	0	131	332	0
08:15	44	0	51	0	95	0	154	11	0	165	0	0	0	0	0	8	129	0	0	137	397	0
08:30	24	0	31	0	55	0	152	10	0	162	0	0	0	0	0	18	145	0	0	163	380	0
08:45	29	0	13	0	42	0	85	9	0	94	0	0	0	0	0	12	153	0	0	165	301	0
Total	140	0	131	0	271	0	502	41	0	543	0	0	0	0	0	40	556	0	0	596	1410	0
16:00	17	0	16	0	33	0	108	27	0	135	0	0	0	0	0	11	109	0	0	120	288	0
16:15	7	0	12	0	19	0	102	28	0	130	0	0	0	0	0	19	93	0	0	112	261	0
16:30	14	0	12	0	26	0	132	20	0	152	0	0	0	0	0	13	121	0	0	134	312	0
16:45	14	0	21	0	35	0	148	33	0	181	0	0	0	0	0	24	130	0	0	154	370	0
Total	52	0	61	0	113	0	490	108	0	598	0	0	0	0	0	67	453	0	0	520	1231	0
17:00	14	0	16	0	30	0	185	38	0	223	0	0	0	0	0	18	134	0	1	153	406	1
17:15	25	0	20	0	45	0	166	41	0	207	0	0	0	0	0	34	126	0	0	160	412	0
17:30	20	0	16	0	36	0	151	35	0	186	0	0	0	0	0	30	122	0	0	152	374	0
17:45	24	0	19	0	43	0	142	41	0	183	0	0	0	0	0	36	117	0	1	154	380	1
Total	83	0	71	0	154	0	644	155	0	799	0	0	0	0	0	118	499	0	2	619	1572	2
Grand Total	410	0	314	0	724	0	1920	329	0	2249	0	0	0	0	0	242	1919	0	2	2163	5136	2
Apprch %	56.6%	0.0%	43.4%	0.0%		0.0%	85.4%	14.6%	0.0%		0.0%	0.0%	0.0%	0.0%		11.2%	88.7%	0.0%	0.1%			
Total %	8.0%	0.0%	6.1%	0.0%	14.1%	0.0%	37.4%	6.4%	0.0%	43.8%	0.0%	0.0%	0.0%	0.0%		4.7%	37.4%	0.0%	0.0%	42.1%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-016 Manzanita Lane-E. Covell Boulevard.ppd

Date : 10/15/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Southbound					E. Covell Boulevard Westbound					Manzanita Lane Northbound					E. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	2	51	0	0	53	7	0	6	0	13	0	85	3	0	88	154	0
07:15	0	0	0	0	0	1	77	0	0	78	3	0	8	0	11	0	98	4	0	102	191	0
07:30	0	0	0	0	0	1	85	0	0	86	14	0	4	0	18	0	97	4	0	101	205	0
07:45	0	0	0	0	0	5	107	0	0	112	12	0	10	0	22	0	111	4	0	115	249	0
<b>Total</b>	0	0	0	0	0	9	320	0	0	329	36	0	28	0	64	0	391	15	0	406	799	0
08:00	0	0	0	0	0	5	141	0	0	146	7	0	8	0	15	0	126	2	0	128	289	0
08:15	0	0	0	0	0	3	204	0	0	207	3	0	3	0	6	0	136	1	0	137	350	0
08:30	0	0	0	0	0	2	177	0	0	179	14	0	5	0	19	0	155	8	0	163	361	0
08:45	0	0	0	0	0	3	98	0	0	101	10	0	6	0	16	0	162	6	0	168	285	0
<b>Total</b>	0	0	0	0	0	13	620	0	0	633	34	0	22	0	56	0	579	17	0	596	1285	0
16:00	0	0	0	0	0	3	107	0	0	110	3	0	5	0	8	0	117	4	0	121	239	0
16:15	0	0	0	0	0	5	126	0	0	131	5	0	4	0	9	0	105	16	0	121	261	0
16:30	0	0	0	0	0	4	135	0	0	139	12	0	0	0	12	0	132	7	0	139	290	0
16:45	0	0	0	0	0	6	169	0	0	175	6	0	5	0	11	0	154	6	0	160	346	0
<b>Total</b>	0	0	0	0	0	18	537	0	0	555	26	0	14	0	40	0	508	33	0	541	1136	0
17:00	0	0	0	0	0	6	191	0	0	197	11	0	6	0	17	0	142	9	0	151	365	0
17:15	0	0	0	0	0	5	186	0	0	191	7	0	6	0	13	0	159	11	0	170	374	0
17:30	0	0	0	0	0	5	160	0	0	165	7	0	2	0	9	0	137	9	0	146	320	0
17:45	0	0	0	0	0	8	159	0	0	167	12	0	9	0	21	0	146	15	0	161	349	0
<b>Total</b>	0	0	0	0	0	24	696	0	0	720	37	0	23	0	60	0	584	44	0	628	1408	0
<b>Grand Total</b>	0	0	0	0	0	64	2173	0	0	2237	133	0	87	0	220	0	2062	109	0	2171	4628	0
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	97.1%	0.0%	0.0%	48.3%	60.5%	0.0%	39.5%	0.0%	4.8%	0.0%	95.0%	5.0%	0.0%	46.9%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	47.0%	0.0%	0.0%	48.3%	2.9%	0.0%	1.9%	0.0%	4.8%	0.0%	44.6%	2.4%	0.0%	46.9%	100.0%	



# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-017 Baywood Lane-E. Covell Boulevard.ppd  
 Date : 10/15/2014

## Unshifted Count = All Vehicles

START TIME	Baywood Lane Southbound					E. Covell Boulevard Westbound					Baywood Lane Northbound					E. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	1	0	2	0	3	0	59	1	0	60	1	0	4	0	5	1	85	1	0	87	155	0
07:15	1	0	0	0	1	0	79	0	0	79	3	0	3	0	6	0	101	0	0	101	187	0
07:30	0	0	0	0	0	1	96	0	0	97	4	0	3	0	7	0	97	1	1	99	203	1
07:45	0	0	5	0	5	3	118	0	0	121	6	0	6	0	12	0	114	4	0	118	256	0
<b>Total</b>	<b>2</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>9</b>	<b>4</b>	<b>352</b>	<b>1</b>	<b>0</b>	<b>357</b>	<b>14</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>30</b>	<b>1</b>	<b>397</b>	<b>6</b>	<b>1</b>	<b>405</b>	<b>801</b>	<b>1</b>
08:00	0	0	6	0	6	8	136	0	0	144	7	1	4	0	12	0	118	2	0	120	282	0
08:15	0	0	4	0	4	13	194	0	0	207	6	0	11	0	17	2	127	6	0	135	363	0
08:30	1	0	1	0	2	3	186	0	0	189	9	0	11	0	20	0	157	1	1	159	370	1
08:45	0	0	1	0	1	0	106	0	0	106	7	0	3	0	10	1	160	1	0	162	279	0
<b>Total</b>	<b>1</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>13</b>	<b>24</b>	<b>622</b>	<b>0</b>	<b>0</b>	<b>646</b>	<b>29</b>	<b>1</b>	<b>29</b>	<b>0</b>	<b>59</b>	<b>3</b>	<b>562</b>	<b>10</b>	<b>1</b>	<b>576</b>	<b>1294</b>	<b>1</b>
16:00	1	0	3	0	4	0	114	1	0	115	3	0	1	0	4	4	121	2	0	127	250	0
16:15	1	0	1	0	2	3	120	1	0	124	6	0	3	0	9	2	123	6	0	131	266	0
16:30	0	0	3	0	3	3	147	2	0	152	2	0	2	0	4	4	134	0	0	138	297	0
16:45	2	0	1	0	3	3	165	1	0	169	4	0	0	0	4	3	161	5	1	170	346	1
<b>Total</b>	<b>4</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>12</b>	<b>9</b>	<b>546</b>	<b>5</b>	<b>0</b>	<b>560</b>	<b>15</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>21</b>	<b>13</b>	<b>539</b>	<b>13</b>	<b>1</b>	<b>566</b>	<b>1159</b>	<b>1</b>
17:00	0	0	0	0	0	3	198	1	0	202	3	0	2	0	5	3	144	6	3	156	363	3
17:15	0	0	1	0	1	5	179	2	0	186	1	0	1	0	2	2	171	9	1	183	372	1
17:30	0	0	5	0	5	5	151	2	0	158	3	0	0	0	3	4	152	12	0	168	334	0
17:45	0	0	3	0	3	1	178	2	0	181	3	0	3	0	6	3	151	7	1	162	352	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>9</b>	<b>14</b>	<b>706</b>	<b>7</b>	<b>0</b>	<b>727</b>	<b>10</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>16</b>	<b>12</b>	<b>618</b>	<b>34</b>	<b>5</b>	<b>669</b>	<b>1421</b>	<b>5</b>
<b>Grand Total</b>	<b>7</b>	<b>0</b>	<b>36</b>	<b>0</b>	<b>43</b>	<b>51</b>	<b>2226</b>	<b>13</b>	<b>0</b>	<b>2290</b>	<b>68</b>	<b>1</b>	<b>57</b>	<b>0</b>	<b>126</b>	<b>29</b>	<b>2116</b>	<b>63</b>	<b>8</b>	<b>2216</b>	<b>4675</b>	<b>8</b>
Apprch %	16.3%	0.0%	83.7%	0.0%		2.2%	97.2%	0.6%	0.0%		54.0%	0.8%	45.2%	0.0%		1.3%	95.5%	2.8%	0.4%			
Total %	0.1%	0.0%	0.8%	0.0%	0.9%	1.1%	47.6%	0.3%	0.0%	49.0%	1.5%	0.0%	1.2%	0.0%	2.7%	0.6%	45.3%	1.3%	0.2%	47.4%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-018 Birch Lane-E. Covell Boulevard.ppd  
 Date : 10/15/2014

## Unshifted Count = All Vehicles

START TIME	Southbound					E. Covell Boulevard Westbound					Birch Lane Northbound					E. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	2	61	0	2	65	2	0	2	0	4	0	87	0	0	87	156	2
07:15	0	0	0	0	0	1	74	0	0	75	6	0	0	0	6	0	98	3	0	101	182	0
07:30	0	0	0	0	0	6	102	0	4	112	2	0	6	0	8	0	99	5	0	104	224	4
07:45	0	0	0	0	0	4	127	0	3	134	6	0	5	0	11	0	114	12	0	126	271	3
<b>Total</b>	0	0	0	0	0	13	364	0	9	386	16	0	13	0	29	0	398	20	0	418	833	9
08:00	0	0	0	0	0	11	127	0	5	143	9	0	4	0	13	0	104	12	0	116	272	5
08:15	0	0	0	0	0	19	188	0	3	210	31	0	10	0	41	0	133	32	0	165	416	3
08:30	0	0	0	0	0	5	187	0	3	195	25	0	8	0	33	0	136	16	0	152	380	3
08:45	0	0	0	0	0	2	116	0	1	119	6	0	4	0	10	0	164	5	0	169	298	1
<b>Total</b>	0	0	0	0	0	37	618	0	12	667	71	0	26	0	97	0	537	65	0	602	1366	12
16:00	0	0	0	0	0	4	120	0	0	124	7	0	4	0	11	0	114	3	0	117	252	0
16:15	0	0	0	0	0	3	116	0	1	120	1	0	0	0	1	0	129	3	0	132	253	1
16:30	0	0	0	0	0	6	138	0	1	145	3	0	3	0	6	0	139	3	0	142	293	1
16:45	0	0	0	0	0	4	156	0	1	161	7	0	3	0	10	0	160	6	0	166	337	1
<b>Total</b>	0	0	0	0	0	17	530	0	3	550	18	0	10	0	28	0	542	15	0	557	1135	3
17:00	0	0	0	0	0	10	200	0	4	214	6	0	2	0	8	0	154	7	0	161	383	4
17:15	0	0	0	0	0	3	163	0	0	166	9	0	5	0	14	0	178	7	0	185	365	0
17:30	0	0	0	0	0	3	170	0	1	174	4	0	1	0	5	0	165	6	0	171	350	1
17:45	0	0	0	0	0	7	155	0	2	164	4	0	1	0	5	0	154	4	0	158	327	2
<b>Total</b>	0	0	0	0	0	23	688	0	7	718	23	0	9	0	32	0	651	24	0	675	1425	7
<b>Grand Total</b>	0	0	0	0	0	90	2200	0	31	2321	128	0	58	0	186	0	2128	124	0	2252	4759	31
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	94.8%	0.0%	1.3%	48.8%	68.8%	0.0%	31.2%	0.0%	3.9%	0.0%	94.5%	5.5%	0.0%	47.3%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	46.2%	0.0%	0.7%	48.8%	2.7%	0.0%	1.2%	0.0%	3.9%	0.0%	44.7%	2.6%	0.0%	47.3%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-019 Pole Line Road-E. Covell Boulevard.ppd

Date : 10/15/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Pole Line Road Southbound					E. Covell Boulevard Westbound					Pole Line Road Northbound					E. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	18	28	33	0	79	6	39	16	0	61	8	17	12	0	37	14	47	5	0	66	243	0
07:15	28	54	40	0	122	12	53	18	0	83	19	17	15	0	51	24	65	11	0	100	356	0
07:30	27	42	48	0	117	3	74	15	0	92	24	29	5	0	58	20	67	17	0	104	371	0
07:45	28	60	73	0	161	13	104	25	0	142	23	37	7	0	67	38	81	20	0	139	509	0
<b>Total</b>	<b>101</b>	<b>184</b>	<b>194</b>	<b>0</b>	<b>479</b>	<b>34</b>	<b>270</b>	<b>74</b>	<b>0</b>	<b>378</b>	<b>74</b>	<b>100</b>	<b>39</b>	<b>0</b>	<b>213</b>	<b>96</b>	<b>260</b>	<b>53</b>	<b>0</b>	<b>409</b>	<b>1479</b>	<b>0</b>
08:00	37	73	63	0	173	12	103	19	0	134	18	30	6	0	54	49	87	27	0	163	524	0
08:15	39	82	83	0	204	18	158	29	0	205	30	14	11	0	55	49	107	38	0	194	658	0
08:30	23	67	90	0	180	11	172	40	0	223	41	43	15	0	99	38	119	30	0	187	689	0
08:45	29	54	60	0	143	13	92	16	0	121	33	33	9	0	75	44	128	36	0	208	547	0
<b>Total</b>	<b>128</b>	<b>276</b>	<b>296</b>	<b>0</b>	<b>700</b>	<b>54</b>	<b>525</b>	<b>104</b>	<b>0</b>	<b>683</b>	<b>122</b>	<b>120</b>	<b>41</b>	<b>0</b>	<b>283</b>	<b>180</b>	<b>441</b>	<b>131</b>	<b>0</b>	<b>752</b>	<b>2418</b>	<b>0</b>
16:00	20	42	34	0	96	17	82	19	0	118	36	62	8	0	106	65	88	30	0	183	503	0
16:15	21	32	46	0	99	13	86	25	0	124	37	47	8	0	92	74	105	34	0	213	528	0
16:30	28	46	46	0	120	16	83	33	0	132	33	67	12	0	112	58	99	33	0	190	554	0
16:45	26	38	55	0	119	27	110	35	0	172	44	69	12	0	125	77	133	41	0	251	667	0
<b>Total</b>	<b>95</b>	<b>158</b>	<b>181</b>	<b>0</b>	<b>434</b>	<b>73</b>	<b>361</b>	<b>112</b>	<b>0</b>	<b>546</b>	<b>150</b>	<b>245</b>	<b>40</b>	<b>0</b>	<b>435</b>	<b>274</b>	<b>425</b>	<b>138</b>	<b>0</b>	<b>837</b>	<b>2252</b>	<b>0</b>
17:00	31	53	51	0	135	34	127	43	0	204	26	77	6	0	109	91	138	44	0	273	721	0
17:15	40	46	72	0	158	32	108	35	0	175	34	79	10	0	123	88	124	47	0	259	715	0
17:30	33	38	46	0	117	21	114	36	0	171	49	68	7	0	124	83	128	45	0	256	668	0
17:45	25	50	43	0	118	20	113	37	0	170	40	42	8	0	90	76	130	39	0	245	623	0
<b>Total</b>	<b>129</b>	<b>187</b>	<b>212</b>	<b>0</b>	<b>528</b>	<b>107</b>	<b>462</b>	<b>151</b>	<b>0</b>	<b>720</b>	<b>149</b>	<b>266</b>	<b>31</b>	<b>0</b>	<b>446</b>	<b>338</b>	<b>520</b>	<b>175</b>	<b>0</b>	<b>1033</b>	<b>2727</b>	<b>0</b>
<b>Grand Total</b>	<b>453</b>	<b>805</b>	<b>883</b>	<b>0</b>	<b>2141</b>	<b>268</b>	<b>1618</b>	<b>441</b>	<b>0</b>	<b>2327</b>	<b>495</b>	<b>731</b>	<b>151</b>	<b>0</b>	<b>1377</b>	<b>888</b>	<b>1646</b>	<b>497</b>	<b>0</b>	<b>3031</b>	<b>8876</b>	<b>0</b>
Apprch %	21.2%	37.6%	41.2%	0.0%		11.5%	69.5%	19.0%	0.0%		35.9%	53.1%	11.0%	0.0%		29.3%	54.3%	16.4%	0.0%			
Total %	5.1%	9.1%	9.9%	0.0%	24.1%	3.0%	18.2%	5.0%	0.0%	26.2%	5.6%	8.2%	1.7%	0.0%	15.5%	10.0%	18.5%	5.6%	0.0%	34.1%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-020 L Street-E. Covell Boulevard.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Southbound					E. Covell Boulevard Westbound					L Street Northbound					E. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	9	82	0	0	91	9	0	10	0	19	0	72	9	0	81	191	0
07:15	0	0	0	0	0	18	216	0	0	234	10	0	11	0	21	0	85	13	0	98	353	0
07:30	0	0	0	0	0	14	195	0	0	209	13	0	9	0	22	0	159	24	0	183	414	0
07:45	0	0	0	0	0	34	165	0	0	199	11	0	21	0	32	0	188	32	0	220	451	0
<b>Total</b>	0	0	0	0	0	75	658	0	0	733	43	0	51	0	94	0	504	78	0	582	1409	0
08:00	0	0	0	0	0	34	215	0	0	249	13	0	28	0	41	0	173	23	0	196	486	0
08:15	0	0	0	0	0	21	229	0	0	250	14	0	12	0	26	0	186	26	0	212	488	0
08:30	0	0	0	0	0	20	175	0	1	196	5	0	12	0	17	0	161	15	0	176	389	1
08:45	0	0	0	0	0	11	146	0	0	157	10	0	7	0	17	0	135	15	0	150	324	0
<b>Total</b>	0	0	0	0	0	86	765	0	1	852	42	0	59	0	101	0	655	79	0	734	1687	1
16:00	0	0	0	0	0	6	167	0	0	173	10	0	23	0	33	0	201	27	0	228	434	0
16:15	0	0	0	0	0	15	180	0	0	195	9	0	21	0	30	0	206	25	0	231	456	0
16:30	0	0	0	0	0	20	212	0	0	232	12	0	26	0	38	0	222	22	0	244	514	0
16:45	0	0	0	0	0	24	178	0	0	202	15	0	33	0	48	0	223	21	0	244	494	0
<b>Total</b>	0	0	0	0	0	65	737	0	0	802	46	0	103	0	149	0	852	95	0	947	1898	0
17:00	0	0	0	0	0	14	173	0	1	188	11	0	34	0	45	0	246	37	0	283	516	1
17:15	0	0	0	0	0	18	183	0	0	201	14	0	31	0	45	0	232	27	0	259	505	0
17:30	0	0	0	0	0	12	185	0	0	197	20	0	30	0	50	0	213	28	0	241	488	0
17:45	0	0	0	0	0	12	208	0	0	220	7	0	26	0	33	0	212	29	0	241	494	0
<b>Total</b>	0	0	0	0	0	56	749	0	1	806	52	0	121	0	173	0	903	121	0	1024	2003	1
<b>Grand Total</b>	0	0	0	0	0	282	2909	0	2	3193	183	0	334	0	517	0	2914	373	0	3287	6997	2
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	8.8%	91.1%	0.0%	0.1%	45.6%	35.4%	0.0%	64.6%	0.0%	7.4%	0.0%	88.7%	11.3%	0.0%	47.0%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	41.6%	0.0%	0.0%	45.6%	2.6%	0.0%	4.8%	0.0%	7.4%	0.0%	41.6%	5.3%	0.0%	47.0%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-021 J Street-E. Covell Boulevard.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	J Street Southbound					E. Covell Boulevard Westbound					J Street Northbound					E. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	1	0	0	0	1	3	85	2	0	90	7	0	3	0	10	0	77	4	0	81	182	0
07:15	1	0	0	0	1	2	216	0	0	218	15	0	10	0	25	0	88	13	0	101	345	0
07:30	1	0	0	0	1	11	194	0	0	205	23	0	9	0	32	0	176	32	0	208	446	0
07:45	0	0	1	0	1	11	158	0	0	169	54	0	24	0	78	0	190	73	0	263	511	0
Total	3	0	1	0	4	27	653	2	0	682	99	0	46	0	145	0	531	122	0	653	1484	0
08:00	0	0	0	0	0	13	218	0	1	232	47	0	36	0	83	0	164	29	0	193	508	1
08:15	1	0	0	0	1	11	231	0	0	242	27	0	14	0	41	0	190	23	0	213	497	0
08:30	1	0	0	0	1	10	167	0	0	177	18	0	9	0	27	2	169	27	0	198	403	0
08:45	1	0	0	0	1	14	142	1	0	157	21	0	12	0	33	0	137	21	0	158	349	0
Total	3	0	0	0	3	48	758	1	1	808	113	0	71	0	184	2	660	100	0	762	1757	1
16:00	0	0	0	0	0	12	163	0	0	175	20	0	19	1	40	0	201	23	1	225	440	2
16:15	0	0	0	0	0	18	174	0	0	192	19	0	15	0	34	0	212	23	0	235	461	0
16:30	0	0	0	0	0	17	212	0	0	229	19	0	21	0	40	0	224	12	0	236	505	0
16:45	0	0	0	0	0	15	174	0	0	189	33	1	22	1	57	0	227	35	0	262	508	1
Total	0	0	0	0	0	62	723	0	0	785	91	1	77	2	171	0	864	93	1	958	1914	3
17:00	0	1	0	0	1	18	177	0	0	195	29	0	33	0	62	0	249	33	0	282	540	0
17:15	0	0	0	0	0	9	175	0	0	184	24	0	25	0	49	0	240	30	0	270	503	0
17:30	1	0	0	0	1	14	201	0	0	215	19	0	20	0	39	0	216	25	0	241	496	0
17:45	0	0	0	0	0	20	183	0	0	203	33	0	18	0	51	0	224	20	1	245	499	1
Total	1	1	0	0	2	61	736	0	0	797	105	0	96	0	201	0	929	108	1	1038	2038	1
Grand Total	7	1	1	0	9	198	2870	3	1	3072	408	1	290	2	701	2	2984	423	2	3411	7193	5
Apprch %	77.8%	11.1%	11.1%	0.0%		6.4%	93.4%	0.1%	0.0%		58.2%	0.1%	41.4%	0.3%		0.1%	87.5%	12.4%	0.1%			
Total %	0.1%	0.0%	0.0%	0.0%	0.1%	2.8%	39.9%	0.0%	0.0%	42.7%	5.7%	0.0%	4.0%	0.0%	9.7%	0.0%	41.5%	5.9%	0.0%	47.4%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-022 F Street-E. Covell Boulevard.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	F Street Southbound					E. Covell Boulevard Westbound					F Street Northbound					E. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	29	11	7	0	47	16	67	10	0	93	7	6	9	0	22	3	48	8	0	59	221	0
07:15	22	36	12	0	70	80	125	9	0	214	6	7	15	0	28	2	61	2	0	65	377	0
07:30	43	45	28	0	116	68	136	16	0	220	9	8	34	0	51	10	160	18	0	188	575	0
07:45	42	29	15	0	86	39	162	19	0	220	8	17	36	0	61	9	166	27	0	202	569	0
Total	136	121	62	0	319	203	490	54	0	747	30	38	94	0	162	24	435	55	0	514	1742	0
08:00	44	43	14	0	101	57	168	24	0	249	6	18	35	0	59	4	123	23	0	150	559	0
08:15	42	75	19	0	136	102	151	19	0	272	10	15	27	0	52	9	143	39	0	191	651	0
08:30	35	31	20	0	86	31	123	20	0	174	19	25	46	0	90	17	105	27	0	149	499	0
08:45	30	31	11	0	72	27	116	18	0	161	14	20	24	0	58	9	105	26	0	140	431	0
Total	151	180	64	0	395	217	558	81	0	856	49	78	132	0	259	39	476	115	0	630	2140	0
16:00	22	19	24	0	65	27	129	24	0	180	26	25	51	0	102	11	162	25	0	198	545	0
16:15	27	28	8	0	63	39	136	24	0	199	31	34	48	0	113	16	156	35	0	207	582	0
16:30	26	30	14	0	70	36	151	38	0	225	32	35	49	0	116	8	151	51	0	210	621	0
16:45	29	32	10	0	71	34	149	34	0	217	24	36	48	0	108	13	194	46	0	253	649	0
Total	104	109	56	0	269	136	565	120	0	821	113	130	196	0	439	48	663	157	0	868	2397	0
17:00	18	20	14	0	52	33	134	31	0	198	34	39	50	0	123	12	222	35	0	269	642	0
17:15	30	26	16	0	72	45	118	41	0	204	50	42	44	0	136	10	200	57	0	267	679	0
17:30	37	24	16	0	77	29	143	39	0	211	36	27	45	0	108	15	157	44	0	216	612	0
17:45	26	17	14	0	57	42	135	39	0	216	28	33	54	0	115	24	160	26	0	210	598	0
Total	111	87	60	0	258	149	530	150	0	829	148	141	193	0	482	61	739	162	0	962	2531	0
Grand Total	502	497	242	0	1241	705	2143	405	0	3253	340	387	615	0	1342	172	2313	489	0	2974	8810	0
Apprch %	40.5%	40.0%	19.5%	0.0%		21.7%	65.9%	12.5%	0.0%		25.3%	28.8%	45.8%	0.0%		5.8%	77.8%	16.4%	0.0%			
Total %	5.7%	5.6%	2.7%	0.0%	14.1%	8.0%	24.3%	4.6%	0.0%	36.9%	3.9%	4.4%	7.0%	0.0%	15.2%	2.0%	26.3%	5.6%	0.0%	33.8%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-023 Catalina Drive-W. Covell Boulevard.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Catalina Drive Southbound					W. Covell Boulevard Westbound					Bike Path Northbound					W. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	22	0	4	0	26	0	68	9	0	77	0	0	0	0	0	4	39	0	0	43	146	0
07:15	21	0	15	0	36	0	122	9	0	131	0	0	0	0	0	5	59	0	0	64	231	0
07:30	27	0	18	0	45	0	166	18	0	184	0	0	0	0	0	7	158	0	0	165	394	0
07:45	53	0	23	0	76	0	159	29	0	188	0	0	0	0	0	5	146	0	0	151	415	0
Total	123	0	60	0	183	0	515	65	0	580	0	0	0	0	0	21	402	0	0	423	1186	0
08:00	45	0	17	0	62	0	166	14	0	180	0	0	0	0	0	9	103	0	0	112	354	0
08:15	48	0	10	0	58	0	174	25	0	199	0	0	0	0	0	10	156	0	0	166	423	0
08:30	30	0	12	0	42	0	143	12	0	155	0	0	0	0	0	16	114	0	0	130	327	0
08:45	32	0	11	0	43	0	137	14	0	151	0	0	0	0	0	10	120	0	0	130	324	0
Total	155	0	50	0	205	0	620	65	0	685	0	0	0	0	0	45	493	0	0	538	1428	0
16:00	26	0	11	0	37	0	139	39	0	178	0	0	0	0	0	14	177	0	0	191	406	0
16:15	26	0	17	0	43	0	139	21	0	160	0	0	0	0	0	10	180	0	0	190	393	0
16:30	23	0	13	0	36	0	151	40	0	191	0	0	0	0	0	17	177	0	0	194	421	0
16:45	37	0	10	0	47	0	136	27	0	163	0	0	0	0	0	18	213	0	0	231	441	0
Total	112	0	51	0	163	0	565	127	0	692	0	0	0	0	0	59	747	0	0	806	1661	0
17:00	36	0	9	0	45	0	141	38	0	179	0	0	0	0	0	21	237	0	0	258	482	0
17:15	35	0	16	0	51	0	148	31	0	179	0	0	0	0	0	27	209	0	0	236	466	0
17:30	22	0	9	0	31	0	148	38	0	186	0	0	0	0	0	19	200	0	0	219	436	0
17:45	28	0	17	0	45	0	132	40	0	172	0	0	0	0	0	15	167	0	0	182	399	0
Total	121	0	51	0	172	0	569	147	0	716	0	0	0	0	0	82	813	0	0	895	1783	0
Grand Total	511	0	212	0	723	0	2269	404	0	2673	0	0	0	0	0	207	2455	0	0	2662	6058	0
Apprch %	70.7%	0.0%	29.3%	0.0%		0.0%	84.9%	15.1%	0.0%		0.0%	0.0%	0.0%	0.0%		7.8%	92.2%	0.0%	0.0%			
Total %	8.4%	0.0%	3.5%	0.0%	11.9%	0.0%	37.5%	6.7%	0.0%	44.1%	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	40.5%	0.0%	0.0%	43.9%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-024 Oak Avenue-W. Covell Boulevard.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	Southbound					W. Covell Boulevard Westbound					Oak Avenue Northbound					W. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	9	61	0	0	70	4	0	5	0	9	0	36	11	0	47	126	0
07:15	0	0	0	0	0	50	82	0	0	132	23	0	20	0	43	0	44	46	0	90	265	0
07:30	0	0	0	0	0	80	108	0	0	188	57	0	103	0	160	0	76	55	0	131	479	0
07:45	0	0	0	0	0	23	157	0	0	180	36	0	40	0	76	0	96	19	0	115	371	0
<b>Total</b>	0	0	0	0	0	162	408	0	0	570	120	0	168	0	288	0	252	131	0	383	1241	0
08:00	0	0	0	0	0	21	152	0	0	173	14	0	12	0	26	0	102	26	0	128	327	0
08:15	0	0	0	0	0	54	135	0	0	189	33	0	36	0	69	0	127	50	0	177	435	0
08:30	0	0	0	0	0	19	136	0	0	155	28	0	36	0	64	0	92	27	0	119	338	0
08:45	0	0	0	0	0	25	122	0	0	147	16	0	17	0	33	0	113	30	0	143	323	0
<b>Total</b>	0	0	0	0	0	119	545	0	0	664	91	0	101	0	192	0	434	133	0	567	1423	0
16:00	0	0	0	0	0	23	129	0	0	152	26	0	25	0	51	0	167	29	0	196	399	0
16:15	0	0	0	0	0	22	131	0	0	153	16	0	13	0	29	0	180	28	0	208	390	0
16:30	0	0	0	0	0	26	134	0	0	160	22	0	20	0	42	0	189	15	0	204	406	0
16:45	0	0	0	0	0	24	121	0	0	145	27	0	27	0	54	0	194	30	0	224	423	0
<b>Total</b>	0	0	0	0	0	95	515	0	0	610	91	0	85	0	176	0	730	102	0	832	1618	0
17:00	0	0	0	0	0	20	122	0	0	142	28	0	25	0	53	0	228	36	0	264	459	0
17:15	0	0	0	0	0	19	146	0	0	165	20	0	38	0	58	0	208	31	0	239	462	0
17:30	0	0	0	0	0	25	131	0	0	156	33	0	23	0	56	0	189	30	0	219	431	0
17:45	0	0	0	0	0	26	122	0	0	148	30	0	22	0	52	0	157	28	0	185	385	0
<b>Total</b>	0	0	0	0	0	90	521	0	0	611	111	0	108	0	219	0	782	125	0	907	1737	0
<b>Grand Total</b>	0	0	0	0	0	466	1989	0	0	2455	413	0	462	0	875	0	2198	491	0	2689	6019	0
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	19.0%	81.0%	0.0%	0.0%	40.8%	47.2%	0.0%	52.8%	0.0%	14.5%	0.0%	81.7%	18.3%	0.0%	44.7%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	7.7%	33.0%	0.0%	0.0%	40.8%	6.9%	0.0%	7.7%	0.0%	14.5%	0.0%	36.5%	8.2%	0.0%	44.7%	100.0%	



# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-025 Anderson Road-W. Covell Boulevard.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	Anderson Road Southbound					W. Covell Boulevard Westbound					Anderson Road Northbound					W. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	7	11	12	0	30	9	50	1	1	61	14	5	8	1	28	3	33	14	2	52	171	4
07:15	5	19	14	0	38	14	65	9	0	88	20	6	5	0	31	4	80	35	0	119	276	0
07:30	7	36	18	0	61	31	111	4	0	146	34	9	12	0	55	10	110	58	2	180	442	2
07:45	10	23	26	0	59	33	132	16	0	181	30	9	11	0	50	8	91	31	1	131	421	1
<b>Total</b>	<b>29</b>	<b>89</b>	<b>70</b>	<b>0</b>	<b>188</b>	<b>87</b>	<b>358</b>	<b>30</b>	<b>1</b>	<b>476</b>	<b>98</b>	<b>29</b>	<b>36</b>	<b>1</b>	<b>164</b>	<b>25</b>	<b>314</b>	<b>138</b>	<b>5</b>	<b>482</b>	<b>1310</b>	<b>7</b>
08:00	8	35	27	0	70	42	112	8	0	162	25	12	11	0	48	8	126	47	2	183	463	2
08:15	14	49	18	0	81	34	116	8	0	158	27	18	21	0	66	13	121	49	1	184	489	1
08:30	8	45	14	0	67	37	115	5	0	157	28	9	11	0	48	11	100	28	1	140	412	1
08:45	21	32	10	0	63	32	75	6	1	114	26	12	20	0	58	7	84	20	1	112	347	2
<b>Total</b>	<b>51</b>	<b>161</b>	<b>69</b>	<b>0</b>	<b>281</b>	<b>145</b>	<b>418</b>	<b>27</b>	<b>1</b>	<b>591</b>	<b>106</b>	<b>51</b>	<b>63</b>	<b>0</b>	<b>220</b>	<b>39</b>	<b>431</b>	<b>144</b>	<b>5</b>	<b>619</b>	<b>1711</b>	<b>6</b>
16:00	14	22	12	0	48	21	113	13	0	147	55	13	22	0	90	10	151	29	2	192	477	2
16:15	16	27	9	0	52	13	98	9	2	122	45	17	28	0	90	9	145	28	1	183	447	3
16:30	20	26	9	0	55	18	114	6	0	138	51	32	25	1	109	12	157	23	0	192	494	1
16:45	22	23	7	0	52	17	106	12	0	135	43	28	22	0	93	12	184	35	0	231	511	0
<b>Total</b>	<b>72</b>	<b>98</b>	<b>37</b>	<b>0</b>	<b>207</b>	<b>69</b>	<b>431</b>	<b>40</b>	<b>2</b>	<b>542</b>	<b>194</b>	<b>90</b>	<b>97</b>	<b>1</b>	<b>382</b>	<b>43</b>	<b>637</b>	<b>115</b>	<b>3</b>	<b>798</b>	<b>1929</b>	<b>6</b>
17:00	22	19	18	0	59	18	98	18	0	134	52	34	33	0	119	17	198	31	0	246	558	0
17:15	20	14	13	0	47	25	108	11	2	146	51	42	33	0	126	23	156	34	3	216	535	5
17:30	21	23	11	0	55	25	100	18	0	143	47	37	26	0	110	8	162	35	1	206	514	1
17:45	14	38	7	0	59	25	93	16	2	136	34	27	24	0	85	16	150	23	1	190	470	3
<b>Total</b>	<b>77</b>	<b>94</b>	<b>49</b>	<b>0</b>	<b>220</b>	<b>93</b>	<b>399</b>	<b>63</b>	<b>4</b>	<b>559</b>	<b>184</b>	<b>140</b>	<b>116</b>	<b>0</b>	<b>440</b>	<b>64</b>	<b>666</b>	<b>123</b>	<b>5</b>	<b>858</b>	<b>2077</b>	<b>9</b>
<b>Grand Total</b>	<b>229</b>	<b>442</b>	<b>225</b>	<b>0</b>	<b>896</b>	<b>394</b>	<b>1606</b>	<b>160</b>	<b>8</b>	<b>2168</b>	<b>582</b>	<b>310</b>	<b>312</b>	<b>2</b>	<b>1206</b>	<b>171</b>	<b>2048</b>	<b>520</b>	<b>18</b>	<b>2757</b>	<b>7027</b>	<b>28</b>
Apprch %	25.6%	49.3%	25.1%	0.0%		18.2%	74.1%	7.4%	0.4%		48.3%	25.7%	25.9%	0.2%		6.2%	74.3%	18.9%	0.7%			
Total %	3.3%	6.3%	3.2%	0.0%	12.8%	5.6%	22.9%	2.3%	0.1%	30.9%	8.3%	4.4%	4.4%	0.0%	17.2%	2.4%	29.1%	7.4%	0.3%	39.2%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-026 Sycamore Lane-W. Covell Boulevard.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	Sycamore Lane Southbound					W. Covell Boulevard Westbound					Sycamore Lane Northbound					W. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	9	2	33	0	44	1	68	4	0	73	19	2	4	0	25	10	42	5	0	57	199	0
07:15	11	1	20	0	32	0	85	12	0	97	26	0	2	0	28	7	99	16	0	122	279	0
07:30	13	8	36	0	57	1	126	18	0	145	22	7	5	0	34	18	162	33	0	213	449	0
07:45	14	7	44	0	65	3	188	24	0	215	21	10	5	0	36	33	119	31	0	183	499	0
<b>Total</b>	<b>47</b>	<b>18</b>	<b>133</b>	<b>0</b>	<b>198</b>	<b>5</b>	<b>467</b>	<b>58</b>	<b>0</b>	<b>530</b>	<b>88</b>	<b>19</b>	<b>16</b>	<b>0</b>	<b>123</b>	<b>68</b>	<b>422</b>	<b>85</b>	<b>0</b>	<b>575</b>	<b>1426</b>	<b>0</b>
08:00	22	26	37	0	85	20	127	14	0	161	29	11	8	0	48	43	146	43	0	232	526	0
08:15	19	14	37	0	70	17	142	10	0	169	43	7	6	0	56	25	164	81	0	270	565	0
08:30	21	12	55	0	88	3	148	15	0	166	55	17	18	0	90	15	90	17	0	122	466	0
08:45	17	10	31	0	58	6	102	11	0	119	20	12	3	0	35	20	108	14	0	142	354	0
<b>Total</b>	<b>79</b>	<b>62</b>	<b>160</b>	<b>0</b>	<b>301</b>	<b>46</b>	<b>519</b>	<b>50</b>	<b>0</b>	<b>615</b>	<b>147</b>	<b>47</b>	<b>35</b>	<b>0</b>	<b>229</b>	<b>103</b>	<b>508</b>	<b>155</b>	<b>0</b>	<b>766</b>	<b>1911</b>	<b>0</b>
16:00	23	16	15	0	54	5	143	26	0	174	31	6	12	0	49	26	146	24	0	196	473	0
16:15	23	15	19	0	57	6	132	24	0	162	19	11	19	0	49	35	147	24	0	206	474	0
16:30	35	15	26	0	76	3	149	12	0	164	31	8	3	0	42	32	172	27	0	231	513	0
16:45	38	16	28	0	82	3	137	20	0	160	29	14	15	0	58	33	164	26	0	223	523	0
<b>Total</b>	<b>119</b>	<b>62</b>	<b>88</b>	<b>0</b>	<b>269</b>	<b>17</b>	<b>561</b>	<b>82</b>	<b>0</b>	<b>660</b>	<b>110</b>	<b>39</b>	<b>49</b>	<b>0</b>	<b>198</b>	<b>126</b>	<b>629</b>	<b>101</b>	<b>0</b>	<b>856</b>	<b>1983</b>	<b>0</b>
17:00	35	10	24	0	69	2	142	14	0	158	24	11	12	0	47	33	204	32	0	269	543	0
17:15	29	15	32	0	76	5	163	26	0	194	25	14	18	0	57	33	179	25	0	237	564	0
17:30	35	12	34	0	81	7	127	17	0	151	32	14	13	0	59	29	139	26	0	194	485	0
17:45	31	22	28	0	81	7	105	16	0	128	30	12	14	0	56	21	164	33	0	218	483	0
<b>Total</b>	<b>130</b>	<b>59</b>	<b>118</b>	<b>0</b>	<b>307</b>	<b>21</b>	<b>537</b>	<b>73</b>	<b>0</b>	<b>631</b>	<b>111</b>	<b>51</b>	<b>57</b>	<b>0</b>	<b>219</b>	<b>116</b>	<b>686</b>	<b>116</b>	<b>0</b>	<b>918</b>	<b>2075</b>	<b>0</b>
<b>Grand Total</b>	<b>375</b>	<b>201</b>	<b>499</b>	<b>0</b>	<b>1075</b>	<b>89</b>	<b>2084</b>	<b>263</b>	<b>0</b>	<b>2436</b>	<b>456</b>	<b>156</b>	<b>157</b>	<b>0</b>	<b>769</b>	<b>413</b>	<b>2245</b>	<b>457</b>	<b>0</b>	<b>3115</b>	<b>7395</b>	<b>0</b>
Apprch %	34.9%	18.7%	46.4%	0.0%		3.7%	85.6%	10.8%	0.0%		59.3%	20.3%	20.4%	0.0%		13.3%	72.1%	14.7%	0.0%			
Total %	5.1%	2.7%	6.7%	0.0%	14.5%	1.2%	28.2%	3.6%	0.0%	32.9%	6.2%	2.1%	2.1%	0.0%	10.4%	5.6%	30.4%	6.2%	0.0%	42.1%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-027 Marketplace Access-W. Covell Boulevard.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Marketplace Access Southbound					W. Covell Boulevard Westbound					Northbound					W. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	24	0	24	0	110	9	0	119	0	0	0	0	0	23	56	0	0	79	222	0
07:15	0	0	24	0	24	0	125	6	0	131	0	0	0	0	0	22	139	0	0	161	316	0
07:30	0	0	33	0	33	0	183	4	0	187	0	0	0	0	0	26	206	0	0	232	452	0
07:45	0	0	30	0	30	0	246	9	0	255	0	0	0	0	0	27	204	0	0	231	516	0
<b>Total</b>	0	0	111	0	111	0	664	28	0	692	0	0	0	0	0	98	605	0	0	703	1506	0
08:00	0	0	35	0	35	0	179	13	0	192	0	0	0	0	0	34	218	0	1	253	480	1
08:15	0	0	31	0	31	0	220	6	0	226	0	0	0	0	0	20	253	0	0	273	530	0
08:30	0	0	29	0	29	0	238	16	0	254	0	0	0	0	0	25	130	0	0	155	438	0
08:45	0	0	27	0	27	0	148	7	0	155	0	0	0	0	0	30	132	0	1	163	345	1
<b>Total</b>	0	0	122	0	122	0	785	42	0	827	0	0	0	0	0	109	733	0	2	844	1793	2
16:00	0	0	45	0	45	0	173	16	0	189	0	0	0	0	0	36	205	0	0	241	475	0
16:15	0	0	55	0	55	0	156	17	0	173	0	0	0	0	0	71	191	0	0	262	490	0
16:30	0	0	60	0	60	0	175	30	0	205	0	0	0	0	0	45	227	0	0	272	537	0
16:45	0	0	56	0	56	0	168	29	0	197	0	0	0	0	0	60	231	0	1	292	545	1
<b>Total</b>	0	0	216	0	216	0	672	92	0	764	0	0	0	0	0	212	854	0	1	1067	2047	1
17:00	0	0	48	0	48	0	164	25	0	189	0	0	0	0	0	51	270	0	1	322	559	1
17:15	0	0	55	0	55	0	177	37	0	214	0	0	0	0	0	41	226	0	0	267	536	0
17:30	0	0	50	0	50	0	167	28	0	195	0	0	0	0	0	72	195	0	0	267	512	0
17:45	0	0	68	0	68	0	140	20	0	160	0	0	0	0	0	57	222	0	0	279	507	0
<b>Total</b>	0	0	221	0	221	0	648	110	0	758	0	0	0	0	0	221	913	0	1	1135	2114	1
<b>Grand Total</b>	0	0	670	0	670	0	2769	272	0	3041	0	0	0	0	0	640	3105	0	4	3749	7460	4
Apprch %	0.0%	0.0%	100.0%	0.0%		0.0%	91.1%	8.9%	0.0%		0.0%	0.0%	0.0%	0.0%		17.1%	82.8%	0.0%	0.1%			
Total %	0.0%	0.0%	9.0%	0.0%	9.0%	0.0%	37.1%	3.6%	0.0%	40.8%	0.0%	0.0%	0.0%	0.0%	0.0%	8.6%	41.6%	0.0%	0.1%	50.3%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-028 SR 113 NB Ramps-W. Covell Boulevard.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	SR 113 NB On-Ramp Southbound					W. Covell Boulevard Westbound					SR 113 NB Off-Ramp Northbound					W. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	0	118	14	0	132	23	0	30	0	53	7	48	0	0	55	240	0
07:15	0	0	0	0	0	0	133	18	0	151	44	0	32	0	76	2	129	0	0	131	358	0
07:30	0	0	0	0	0	0	180	35	0	215	60	0	54	0	114	22	184	0	0	206	535	0
07:45	0	0	0	0	0	0	247	28	0	275	82	0	73	0	155	15	160	0	0	175	605	0
<b>Total</b>	0	0	0	0	0	0	678	95	0	773	209	0	189	0	398	46	521	0	0	567	1738	0
08:00	0	0	0	0	0	0	197	17	0	214	69	0	57	0	126	10	191	0	1	202	542	1
08:15	0	0	0	0	0	0	218	30	0	248	72	0	58	0	130	11	222	0	0	233	611	0
08:30	0	0	0	0	0	0	229	41	0	270	45	0	43	0	88	10	111	0	0	121	479	0
08:45	0	0	0	0	0	0	160	16	0	176	64	1	48	0	113	15	114	0	0	129	418	0
<b>Total</b>	0	0	0	0	0	0	804	104	0	908	250	1	206	0	457	46	638	0	1	685	2050	1
16:00	0	0	0	0	0	0	179	40	0	219	75	0	73	0	148	21	156	0	0	177	544	0
16:15	0	0	0	0	0	0	174	40	0	214	61	0	93	0	154	24	170	0	0	194	562	0
16:30	0	0	0	0	0	0	195	32	0	227	59	0	92	0	151	29	185	0	0	214	592	0
16:45	0	0	0	0	0	0	201	34	0	235	55	1	94	0	150	33	192	0	0	225	610	0
<b>Total</b>	0	0	0	0	0	0	749	146	0	895	250	1	352	0	603	107	703	0	0	810	2308	0
17:00	0	0	0	0	0	0	179	37	0	216	79	0	116	0	195	31	213	0	0	244	655	0
17:15	0	0	0	0	0	0	187	40	0	227	85	1	87	0	173	31	178	0	0	209	609	0
17:30	0	0	0	0	0	0	195	27	0	222	68	0	101	0	169	19	167	0	0	186	577	0
17:45	0	0	0	0	0	0	167	37	0	204	78	0	128	0	206	23	147	0	0	170	580	0
<b>Total</b>	0	0	0	0	0	0	728	141	0	869	310	1	432	0	743	104	705	0	0	809	2421	0
<b>Grand Total</b>	0	0	0	0	0	0	2959	486	0	3445	1019	3	1179	0	2201	303	2567	0	1	2871	8517	1
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	85.9%	14.1%	0.0%	40.4%	46.3%	0.1%	53.6%	0.0%	25.8%	10.6%	89.4%	0.0%	0.0%	33.7%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	34.7%	5.7%	0.0%	40.4%	12.0%	0.0%	13.8%	0.0%	25.8%	3.6%	30.1%	0.0%	0.0%	33.7%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-029 SR 113 SB Ramps-W. Covell Boulevard.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	SR 113 SB Off-Ramp Southbound					W. Covell Boulevard Westbound					SR 113 SB On-Ramp Northbound					W. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	11	0	17	0	28	58	77	0	0	135	0	0	0	0	0	0	44	65	0	109	272	0
07:15	29	0	19	0	48	67	114	0	0	181	0	0	0	0	0	0	103	74	0	177	406	0
07:30	54	0	33	0	87	91	143	0	2	236	0	0	0	0	0	0	149	104	0	253	576	2
07:45	28	0	44	0	72	121	209	0	0	330	0	0	0	0	0	0	143	89	0	232	634	0
<b>Total</b>	<b>122</b>	<b>0</b>	<b>113</b>	<b>0</b>	<b>235</b>	<b>337</b>	<b>543</b>	<b>0</b>	<b>2</b>	<b>882</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>439</b>	<b>332</b>	<b>0</b>	<b>771</b>	<b>1888</b>	<b>2</b>
08:00	34	0	31	0	65	80	182	0	0	262	0	0	0	0	0	0	170	70	0	240	567	0
08:15	52	0	33	0	85	116	175	0	0	291	0	0	0	0	0	0	182	91	0	273	649	0
08:30	29	0	24	0	53	100	168	0	0	268	0	0	0	0	0	0	95	103	0	198	519	0
08:45	16	0	29	0	45	95	138	0	1	234	0	0	0	0	0	0	111	91	0	202	481	1
<b>Total</b>	<b>131</b>	<b>0</b>	<b>117</b>	<b>0</b>	<b>248</b>	<b>391</b>	<b>663</b>	<b>0</b>	<b>1</b>	<b>1055</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>558</b>	<b>355</b>	<b>0</b>	<b>913</b>	<b>2216</b>	<b>1</b>
16:00	19	1	23	0	43	51	209	0	0	260	0	0	0	0	0	0	154	66	0	220	523	0
16:15	26	0	27	0	53	35	197	0	1	233	0	0	0	0	0	0	179	59	0	238	524	1
16:30	22	0	19	0	41	63	190	0	6	259	0	0	0	0	0	0	191	62	0	253	553	6
16:45	29	0	25	0	54	44	205	0	0	249	0	0	0	0	0	0	190	51	0	241	544	0
<b>Total</b>	<b>96</b>	<b>1</b>	<b>94</b>	<b>0</b>	<b>191</b>	<b>193</b>	<b>801</b>	<b>0</b>	<b>7</b>	<b>1001</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>714</b>	<b>238</b>	<b>0</b>	<b>952</b>	<b>2144</b>	<b>7</b>
17:00	33	0	19	0	52	59	198	0	4	261	0	0	0	0	0	0	214	80	0	294	607	4
17:15	27	0	21	0	48	48	215	0	6	269	0	0	0	0	0	0	171	60	0	231	548	6
17:30	24	0	20	0	44	53	207	0	1	261	0	0	0	0	0	0	164	76	0	240	545	1
17:45	33	0	18	0	51	67	189	0	0	256	0	0	0	0	0	0	134	65	0	199	506	0
<b>Total</b>	<b>117</b>	<b>0</b>	<b>78</b>	<b>0</b>	<b>195</b>	<b>227</b>	<b>809</b>	<b>0</b>	<b>11</b>	<b>1047</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>683</b>	<b>281</b>	<b>0</b>	<b>964</b>	<b>2206</b>	<b>11</b>
<b>Grand Total</b>	<b>466</b>	<b>1</b>	<b>402</b>	<b>0</b>	<b>869</b>	<b>1148</b>	<b>2816</b>	<b>0</b>	<b>21</b>	<b>3985</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2394</b>	<b>1206</b>	<b>0</b>	<b>3600</b>	<b>8454</b>	<b>21</b>
Apprch %	53.6%	0.1%	46.3%	0.0%		28.8%	70.7%	0.0%	0.5%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.5%	33.5%	0.0%			
Total %	5.5%	0.0%	4.8%	0.0%	10.3%	13.6%	33.3%	0.0%	0.2%	47.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	28.3%	14.3%	0.0%	42.6%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-030 John Jones Road-W. Covell Boulevard.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	John Jones Road Southbound					W. Covell Boulevard Westbound					Northbound					W. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	33	0	1	0	34	0	61	34	0	95	0	0	0	0	0	10	80	0	0	90	219	0
07:15	38	0	10	0	48	0	77	53	0	130	0	0	0	0	0	22	136	0	0	158	336	0
07:30	55	0	9	0	64	0	97	73	0	170	0	0	0	0	0	16	198	0	0	214	448	0
07:45	47	0	17	0	64	0	180	77	0	257	0	0	0	0	0	24	183	0	0	207	528	0
<b>Total</b>	<b>173</b>	<b>0</b>	<b>37</b>	<b>0</b>	<b>210</b>	<b>0</b>	<b>415</b>	<b>237</b>	<b>0</b>	<b>652</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>72</b>	<b>597</b>	<b>0</b>	<b>0</b>	<b>669</b>	<b>1531</b>	<b>0</b>
08:00	34	0	12	0	46	0	141	70	0	211	0	0	0	0	0	15	208	0	0	223	480	0
08:15	45	0	16	0	61	0	144	67	0	211	0	0	0	0	0	26	218	0	0	244	516	0
08:30	46	0	17	0	63	0	124	65	0	189	0	0	0	0	0	22	157	0	0	179	431	0
08:45	42	0	12	0	54	0	117	54	0	171	0	0	0	0	0	16	157	0	0	173	398	0
<b>Total</b>	<b>167</b>	<b>0</b>	<b>57</b>	<b>0</b>	<b>224</b>	<b>0</b>	<b>526</b>	<b>256</b>	<b>0</b>	<b>782</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>79</b>	<b>740</b>	<b>0</b>	<b>0</b>	<b>819</b>	<b>1825</b>	<b>0</b>
16:00	61	0	21	0	82	0	186	52	0	238	0	0	0	0	0	11	172	0	0	183	503	0
16:15	61	0	18	0	79	0	188	34	0	222	0	0	0	0	0	5	163	0	1	169	470	1
16:30	58	0	17	1	76	0	178	38	0	216	0	0	0	0	0	16	196	0	2	214	506	3
16:45	52	0	11	0	63	0	178	46	0	224	0	0	0	0	0	11	185	0	0	196	483	0
<b>Total</b>	<b>232</b>	<b>0</b>	<b>67</b>	<b>1</b>	<b>300</b>	<b>0</b>	<b>730</b>	<b>170</b>	<b>0</b>	<b>900</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>716</b>	<b>0</b>	<b>3</b>	<b>762</b>	<b>1962</b>	<b>4</b>
17:00	81	0	18	0	99	0	179	40	0	219	0	0	0	0	0	11	221	0	1	233	551	1
17:15	52	0	19	0	71	0	198	42	0	240	0	0	0	0	0	10	184	0	0	194	505	0
17:30	49	0	17	0	66	0	181	32	0	213	0	0	0	0	0	9	184	0	0	193	472	0
17:45	42	0	7	0	49	0	179	36	0	215	0	0	0	0	0	13	158	0	1	172	436	1
<b>Total</b>	<b>224</b>	<b>0</b>	<b>61</b>	<b>0</b>	<b>285</b>	<b>0</b>	<b>737</b>	<b>150</b>	<b>0</b>	<b>887</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>747</b>	<b>0</b>	<b>2</b>	<b>792</b>	<b>1964</b>	<b>2</b>
<b>Grand Total</b>	<b>796</b>	<b>0</b>	<b>222</b>	<b>1</b>	<b>1019</b>	<b>0</b>	<b>2408</b>	<b>813</b>	<b>0</b>	<b>3221</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>237</b>	<b>2800</b>	<b>0</b>	<b>5</b>	<b>3042</b>	<b>7282</b>	<b>6</b>
Apprch %	78.1%	0.0%	21.8%	0.1%		0.0%	74.8%	25.2%	0.0%		0.0%	0.0%	0.0%	0.0%		7.8%	92.0%	0.0%	0.2%			
Total %	10.9%	0.0%	3.0%	0.0%	14.0%	0.0%	33.1%	11.2%	0.0%	44.2%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	38.5%	0.0%	0.1%	41.8%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-031 Shasta Drive-Risling Court-W. Covell Bouleva  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	Risling Court Southbound					W. Covell Boulevard Westbound					Shasta Drive Northbound					W. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	3	0	0	0	3	18	36	7	0	61	0	2	21	0	23	3	67	0	0	70	157	0
07:15	1	2	2	0	5	11	57	12	0	80	0	0	49	0	49	1	114	0	1	116	250	1
07:30	3	2	1	0	6	24	73	12	0	109	1	0	53	0	54	4	158	2	0	164	333	0
07:45	3	0	0	0	3	62	105	23	0	190	2	2	65	0	69	15	140	4	0	159	421	0
Total	10	4	3	0	17	115	271	54	0	440	3	4	188	0	195	23	479	6	1	509	1161	1
08:00	6	0	3	0	9	37	108	15	1	161	3	3	67	0	73	7	148	4	0	159	402	1
08:15	2	0	2	0	4	32	103	18	2	155	2	1	78	0	81	9	163	1	0	173	413	2
08:30	8	0	2	0	10	30	78	33	2	143	3	2	50	0	55	9	120	1	0	130	338	2
08:45	9	1	1	0	11	21	80	25	2	128	4	2	41	0	47	7	117	1	1	126	312	3
Total	25	1	8	0	34	120	369	91	7	587	12	8	236	0	256	32	548	7	1	588	1465	8
16:00	17	4	5	0	26	41	138	15	1	195	1	2	46	0	49	1	111	3	0	115	385	1
16:15	20	3	6	0	29	64	137	15	0	216	6	1	56	0	63	1	104	1	1	107	415	1
16:30	21	2	7	0	30	47	126	12	0	185	3	2	52	0	57	3	130	2	0	135	407	0
16:45	14	1	8	0	23	41	147	9	0	197	4	1	48	0	53	2	137	4	0	143	416	0
Total	72	10	26	0	108	193	548	51	1	793	14	6	202	0	222	7	482	10	1	500	1623	2
17:00	26	0	6	0	32	54	141	4	0	199	2	1	52	0	55	1	152	3	0	156	442	0
17:15	10	3	7	0	20	56	148	6	3	213	3	1	48	0	52	3	130	5	0	138	423	3
17:30	10	1	1	0	12	49	140	12	0	201	7	1	55	0	63	6	129	5	0	140	416	0
17:45	17	0	3	0	20	53	122	8	0	183	0	1	55	0	56	1	103	2	0	106	365	0
Total	63	4	17	0	84	212	551	30	3	796	12	4	210	0	226	11	514	15	0	540	1646	3
Grand Total	170	19	54	0	243	640	1739	226	11	2616	41	22	836	0	899	73	2023	38	3	2137	5895	14
Apprch %	70.0%	7.8%	22.2%	0.0%		24.5%	66.5%	8.6%	0.4%		4.6%	2.4%	93.0%	0.0%		3.4%	94.7%	1.8%	0.1%			
Total %	2.9%	0.3%	0.9%	0.0%	4.1%	10.9%	29.5%	3.8%	0.2%	44.4%	0.7%	0.4%	14.2%	0.0%	15.3%	1.2%	34.3%	0.6%	0.1%	36.3%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-032 Denali Drive-W. Covell Boulevard.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Southbound					W. Covell Boulevard Westbound					Denali Drive Northbound					W. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	10	28	0	0	38	1	0	12	0	13	0	57	1	0	58	109	0
07:15	0	0	0	0	0	3	56	0	0	59	3	0	26	0	29	0	94	2	0	96	184	0
07:30	0	0	0	0	0	12	64	0	0	76	1	0	48	0	49	0	114	4	0	118	243	0
07:45	0	0	0	0	0	22	78	0	0	100	3	0	29	0	32	0	135	2	0	137	269	0
<b>Total</b>	0	0	0	0	0	47	226	0	0	273	8	0	115	0	123	0	400	9	0	409	805	0
08:00	0	0	0	0	0	36	84	0	0	120	6	0	42	0	48	0	113	6	0	119	287	0
08:15	0	0	0	0	0	25	78	0	0	103	9	0	47	0	56	0	130	7	0	137	296	0
08:30	0	0	0	0	0	17	67	0	1	85	6	0	41	0	47	0	86	3	0	89	221	1
08:45	0	0	0	0	0	15	71	0	0	86	1	0	31	0	32	0	94	3	0	97	215	0
<b>Total</b>	0	0	0	0	0	93	300	0	1	394	22	0	161	0	183	0	423	19	0	442	1019	1
16:00	0	0	0	0	0	21	117	0	0	138	7	0	15	0	22	0	110	3	0	113	273	0
16:15	0	0	0	0	0	30	128	0	0	158	0	0	23	0	23	0	82	4	0	86	267	0
16:30	0	0	0	0	0	16	116	0	0	132	3	0	22	0	25	0	124	7	0	131	288	0
16:45	0	0	0	0	0	41	128	0	0	169	3	0	18	0	21	0	115	3	0	118	308	0
<b>Total</b>	0	0	0	0	0	108	489	0	0	597	13	0	78	0	91	0	431	17	0	448	1136	0
17:00	0	0	0	0	0	37	114	0	0	151	4	0	22	0	26	0	140	10	0	150	327	0
17:15	0	0	0	0	0	32	122	0	0	154	10	0	34	0	44	0	100	4	0	104	302	0
17:30	0	0	0	0	0	41	114	0	0	155	6	0	27	0	33	0	115	7	0	122	310	0
17:45	0	0	0	0	0	25	94	0	0	119	3	0	27	0	30	0	81	8	0	89	238	0
<b>Total</b>	0	0	0	0	0	135	444	0	0	579	23	0	110	0	133	0	436	29	0	465	1177	0
<b>Grand Total</b>	0	0	0	0	0	383	1459	0	1	1843	66	0	464	0	530	0	1690	74	0	1764	4137	1
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	20.8%	79.2%	0.0%	0.1%	44.5%	12.5%	0.0%	87.5%	0.0%	12.8%	0.0%	95.8%	4.2%	0.0%	42.6%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	9.3%	35.3%	0.0%	0.0%	44.5%	1.6%	0.0%	11.2%	0.0%	12.8%	0.0%	40.9%	1.8%	0.0%	42.6%	100.0%	



# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-033 Lake Boulevard-W. Covell Boulevard.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	Lake Boulevard Southbound					W. Covell Boulevard Westbound					Lake Boulevard Northbound					W. Covell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	3	6	3	0	12	15	15	2	0	32	7	4	27	0	38	6	33	4	0	43	125	0
07:15	4	8	4	0	16	12	28	3	0	43	0	9	27	0	36	3	62	9	0	74	169	0
07:30	4	10	2	0	16	11	35	0	0	46	8	12	43	0	63	6	68	5	0	79	204	0
07:45	14	26	3	0	43	23	28	2	0	53	14	20	60	0	94	8	73	21	0	102	292	0
Total	25	50	12	0	87	61	106	7	0	174	29	45	157	0	231	23	236	39	0	298	790	0
08:00	9	8	4	0	21	26	42	1	1	70	11	11	55	0	77	5	57	3	0	65	233	1
08:15	7	4	8	0	19	25	40	3	0	68	7	9	56	0	72	5	63	7	0	75	234	0
08:30	10	3	4	0	17	24	31	7	0	62	3	7	48	0	58	1	30	4	0	35	172	0
08:45	9	7	9	0	25	31	25	1	0	57	5	4	39	0	48	6	56	5	0	67	197	0
Total	35	22	25	0	82	106	138	12	1	257	26	31	198	0	255	17	206	19	0	242	836	1
16:00	3	10	7	0	20	45	60	5	0	110	5	9	36	0	50	8	55	13	0	76	256	0
16:15	2	13	8	0	23	51	57	6	0	114	7	6	35	0	48	5	45	4	0	54	239	0
16:30	5	9	4	0	18	45	57	10	0	112	3	16	43	0	62	6	64	8	0	78	270	0
16:45	2	7	2	0	11	57	64	4	0	125	8	3	41	0	52	7	54	10	0	71	259	0
Total	12	39	21	0	72	198	238	25	0	461	23	34	155	0	212	26	218	35	0	279	1024	0
17:00	6	11	8	0	25	48	58	9	0	115	7	14	40	0	61	5	67	11	0	83	284	0
17:15	0	17	4	0	21	64	62	4	0	130	11	11	31	0	53	6	58	13	0	77	281	0
17:30	7	4	5	0	16	43	64	6	0	113	9	13	47	0	69	2	48	8	1	59	257	1
17:45	3	9	5	0	17	62	46	2	0	110	6	10	35	0	51	5	40	9	0	54	232	0
Total	16	41	22	0	79	217	230	21	0	468	33	48	153	0	234	18	213	41	1	273	1054	1
Grand Total	88	152	80	0	320	582	712	65	1	1360	111	158	663	0	932	84	873	134	1	1092	3704	2
Apprch %	27.5%	47.5%	25.0%	0.0%		42.8%	52.4%	4.8%	0.1%		11.9%	17.0%	71.1%	0.0%		7.7%	79.9%	12.3%	0.1%			
Total %	2.4%	4.1%	2.2%	0.0%	8.6%	15.7%	19.2%	1.8%	0.0%	36.7%	3.0%	4.3%	17.9%	0.0%	25.2%	2.3%	23.6%	3.6%	0.0%	29.5%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-035 Drummond Avenue-Cowell Boulevard.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	Chiles Road Southbound					Cowell Boulevard Westbound					Drummond Avenue Northbound					Cowell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	2	22	0	24	4	19	1	0	24	9	22	5	0	36	5	5	1	0	11	95	0
07:15	0	6	18	0	24	4	49	1	0	54	13	25	2	0	40	5	10	3	0	18	136	0
07:30	0	10	23	0	33	3	33	3	0	39	11	26	4	0	41	14	21	4	0	39	152	0
07:45	0	8	29	0	37	5	33	1	0	39	13	33	9	0	55	21	14	2	0	37	168	0
Total	0	26	92	0	118	16	134	6	0	156	46	106	20	0	172	45	50	10	0	105	551	0
08:00	0	24	25	0	49	10	45	1	0	56	9	25	10	0	44	23	18	1	0	42	191	0
08:15	0	27	31	0	58	17	42	1	0	60	12	29	15	0	56	12	17	17	0	46	220	0
08:30	2	9	35	0	46	5	32	1	0	38	15	26	3	0	44	23	20	7	0	50	178	0
08:45	2	5	26	0	33	4	38	1	0	43	13	16	5	0	34	23	14	5	0	42	152	0
Total	4	65	117	0	186	36	157	4	0	197	49	96	33	0	178	81	69	30	0	180	741	0
16:00	1	8	34	0	43	5	28	2	0	35	6	10	4	0	20	48	31	5	0	84	182	0
16:15	1	11	32	0	44	7	21	2	0	30	2	8	9	0	19	64	42	6	0	112	205	0
16:30	0	16	25	0	41	11	26	0	0	37	5	5	4	0	14	57	33	12	0	102	194	0
16:45	3	21	26	0	50	11	29	1	0	41	9	7	12	0	28	52	41	8	0	101	220	0
Total	5	56	117	0	178	34	104	5	0	143	22	30	29	0	81	221	147	31	0	399	801	0
17:00	1	25	34	0	60	18	28	2	0	48	11	21	12	0	44	67	40	13	0	120	272	0
17:15	5	19	31	0	55	12	27	4	0	43	7	15	5	0	27	32	44	9	0	85	210	0
17:30	2	31	28	0	61	14	25	0	0	39	10	13	10	0	33	32	41	9	0	82	215	0
17:45	1	25	37	0	63	9	25	0	0	34	6	11	8	0	25	28	45	5	0	78	200	0
Total	9	100	130	0	239	53	105	6	0	164	34	60	35	0	129	159	170	36	0	365	897	0
Grand Total	18	247	456	0	721	139	500	21	0	660	151	292	117	0	560	506	436	107	0	1049	2990	0
Apprch %	2.5%	34.3%	63.2%	0.0%		21.1%	75.8%	3.2%	0.0%		27.0%	52.1%	20.9%	0.0%		48.2%	41.6%	10.2%	0.0%			
Total %	0.6%	8.3%	15.3%	0.0%	24.1%	4.6%	16.7%	0.7%	0.0%	22.1%	5.1%	9.8%	3.9%	0.0%	18.7%	16.9%	14.6%	3.6%	0.0%	35.1%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-036 Cowell Boulevard-Research Park Drive.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	Cowell Boulevard Southbound					Greene Terrace Westbound					Cowell Boulevard Northbound					Research Park Drive Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	23	25	0	48	0	0	0	0	0	3	10	0	0	13	1	0	2	0	3	64	0
07:15	0	55	27	0	82	1	1	0	0	2	8	12	0	0	20	4	0	2	0	6	110	0
07:30	0	35	28	0	63	1	1	0	0	2	9	32	0	1	42	6	0	3	0	9	116	1
07:45	0	54	29	0	83	1	4	1	0	6	11	31	1	0	43	7	0	1	0	8	140	0
<b>Total</b>	0	167	109	0	276	3	6	1	0	10	31	85	1	1	118	18	0	8	0	26	430	1
08:00	0	54	26	0	80	0	0	1	0	1	9	35	0	1	45	7	0	7	0	14	140	1
08:15	1	50	34	0	85	0	0	0	0	0	11	31	0	0	42	7	0	2	0	9	136	0
08:30	0	54	26	0	80	0	0	0	0	0	11	39	1	0	51	10	0	5	0	15	146	0
08:45	0	59	17	0	76	0	0	1	0	1	7	32	0	0	39	5	0	2	0	7	123	0
<b>Total</b>	1	217	103	0	321	0	0	2	0	2	38	137	1	1	177	29	0	16	0	45	545	1
16:00	1	55	16	0	72	0	0	0	0	0	4	60	0	1	65	30	0	11	0	41	178	1
16:15	0	42	19	0	61	2	0	0	0	2	6	64	1	0	71	48	0	10	0	58	192	0
16:30	1	45	13	0	59	1	0	0	0	1	4	70	0	0	74	34	1	6	0	41	175	0
16:45	0	56	7	0	63	1	0	0	0	1	4	70	0	0	74	28	0	15	0	43	181	0
<b>Total</b>	2	198	55	0	255	4	0	0	0	4	18	264	1	1	284	140	1	42	0	183	726	1
17:00	3	50	23	0	76	1	0	0	0	1	6	76	1	0	83	50	1	19	0	70	230	0
17:15	0	51	15	0	66	0	0	2	0	2	6	61	1	2	70	26	1	15	0	42	180	2
17:30	0	55	15	0	70	1	0	1	0	2	5	60	1	0	66	21	0	16	0	37	175	0
17:45	0	57	15	0	72	2	0	1	0	3	9	58	2	0	69	19	0	10	0	29	173	0
<b>Total</b>	3	213	68	0	284	4	0	4	0	8	26	255	5	2	288	116	2	60	0	178	758	2
<b>Grand Total</b>	6	795	335	0	1136	11	6	7	0	24	113	741	8	5	867	303	3	126	0	432	2459	5
Apprch %	0.5%	70.0%	29.5%	0.0%		45.8%	25.0%	29.2%	0.0%		13.0%	85.5%	0.9%	0.6%		70.1%	0.7%	29.2%	0.0%			
Total %	0.2%	32.3%	13.6%	0.0%	46.2%	0.4%	0.2%	0.3%	0.0%	1.0%	4.6%	30.1%	0.3%	0.2%	35.3%	12.3%	0.1%	5.1%	0.0%	17.6%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-037 Cowell Boulevard-Pole Line Road.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	Cowell Boulevard Southbound					Lillard Drive Westbound					Cowell Boulevard Northbound					Pole Line Road Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	9	23	0	32	10	8	1	0	19	16	2	7	0	25	9	12	21	0	42	118	0
07:15	0	12	45	0	57	22	48	1	0	71	24	4	11	0	39	10	4	29	0	43	210	0
07:30	0	13	30	1	44	24	33	3	0	60	27	10	19	0	56	26	19	36	1	82	242	2
07:45	2	19	38	0	59	52	39	2	0	93	26	10	25	0	61	22	20	38	0	80	293	0
Total	2	53	136	1	192	108	128	7	0	243	93	26	62	0	181	67	55	124	1	247	863	2
08:00	3	21	45	0	69	29	40	3	0	72	29	10	36	0	75	27	29	42	0	98	314	0
08:15	4	15	44	0	63	59	68	4	0	131	28	9	54	0	91	29	53	51	0	133	418	0
08:30	3	24	39	0	66	51	43	5	0	99	28	15	22	0	65	36	47	56	0	139	369	0
08:45	3	22	37	0	62	39	48	5	0	92	32	15	18	0	65	21	27	35	0	83	302	0
Total	13	82	165	0	260	178	199	17	0	394	117	49	130	0	296	113	156	184	0	453	1403	0
16:00	2	23	46	0	71	29	29	2	0	60	52	25	38	0	115	45	37	39	1	122	368	1
16:15	3	20	30	0	53	20	47	1	0	68	52	34	31	0	117	41	43	39	1	124	362	1
16:30	1	21	31	0	53	35	40	2	0	77	41	33	49	0	123	46	43	44	0	133	386	0
16:45	2	28	42	0	72	42	57	3	0	102	42	41	41	0	124	37	53	35	1	126	424	1
Total	8	92	149	0	249	126	173	8	0	307	187	133	159	0	479	169	176	157	3	505	1540	3
17:00	0	30	40	0	70	39	45	0	0	84	49	34	47	0	130	53	55	48	1	157	441	1
17:15	0	21	42	0	63	38	40	1	0	79	38	33	52	0	123	44	47	30	1	122	387	1
17:30	5	26	41	1	73	15	41	1	0	57	46	17	38	0	101	51	42	44	1	138	369	2
17:45	3	27	37	0	67	34	46	2	0	82	49	32	41	0	122	38	41	36	0	115	386	0
Total	8	104	160	1	273	126	172	4	0	302	182	116	178	0	476	186	185	158	3	532	1583	4
Grand Total	31	331	610	2	974	538	672	36	0	1246	579	324	529	0	1432	535	572	623	7	1737	5389	9
Apprch %	3.2%	34.0%	62.6%	0.2%		43.2%	53.9%	2.9%	0.0%		40.4%	22.6%	36.9%	0.0%		30.8%	32.9%	35.9%	0.4%			
Total %	0.6%	6.1%	11.3%	0.0%	18.1%	10.0%	12.5%	0.7%	0.0%	23.1%	10.7%	6.0%	9.8%	0.0%	26.6%	9.9%	10.6%	11.6%	0.1%	32.2%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-038 Valdora Street-Cowell Boulevard.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	Valdora Street Southbound					Cowell Boulevard Westbound					Valdora Street Northbound					Cowell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	1	1	10	0	12	2	34	3	0	39	8	0	1	0	9	3	21	0	0	24	84	0
07:15	0	0	16	0	16	3	56	3	0	62	9	1	10	0	20	1	29	1	0	31	129	0
07:30	2	0	12	0	14	3	73	1	0	77	14	3	10	0	27	2	52	1	0	55	173	0
07:45	2	0	16	0	18	3	97	9	0	109	8	1	4	0	13	8	51	0	0	59	199	0
Total	5	1	54	0	60	11	260	16	0	287	39	5	25	0	69	14	153	2	0	169	585	0
08:00	1	1	18	0	20	3	78	11	0	92	25	2	15	0	42	14	64	6	0	84	238	0
08:15	2	0	12	0	14	1	117	2	0	120	8	1	17	0	26	6	73	1	0	80	240	0
08:30	4	3	16	0	23	11	121	6	1	139	24	4	6	0	34	13	55	5	0	73	269	1
08:45	3	1	11	0	15	3	87	10	0	100	18	1	10	0	29	14	44	3	0	61	205	0
Total	10	5	57	0	72	18	403	29	1	451	75	8	48	0	131	47	236	15	0	298	952	1
16:00	4	1	28	0	33	11	70	8	1	90	8	2	11	0	21	13	113	8	0	134	278	1
16:15	9	4	23	0	36	4	69	10	0	83	10	4	5	0	19	21	106	20	0	147	285	0
16:30	5	3	25	0	33	9	85	10	0	104	11	3	9	0	23	13	113	16	1	143	303	1
16:45	8	4	20	0	32	11	83	12	0	106	6	5	16	0	27	17	120	14	0	151	316	0
Total	26	12	96	0	134	35	307	40	1	383	35	14	41	0	90	64	452	58	1	575	1182	2
17:00	8	4	17	0	29	14	93	6	0	113	10	2	14	0	26	17	112	14	0	143	311	0
17:15	9	5	10	0	24	9	72	11	0	92	15	5	8	0	28	21	108	18	1	148	292	1
17:30	14	3	21	0	38	10	68	11	0	89	12	5	7	0	24	18	94	10	1	123	274	1
17:45	10	5	16	0	31	9	73	14	0	96	12	3	9	0	24	23	97	27	0	147	298	0
Total	41	17	64	0	122	42	306	42	0	390	49	15	38	0	102	79	411	69	2	561	1175	2
Grand Total	82	35	271	0	388	106	1276	127	2	1511	198	42	152	0	392	204	1252	144	3	1603	3894	5
Apprch %	21.1%	9.0%	69.8%	0.0%		7.0%	84.4%	8.4%	0.1%		50.5%	10.7%	38.8%	0.0%		12.7%	78.1%	9.0%	0.2%			
Total %	2.1%	0.9%	7.0%	0.0%	10.0%	2.7%	32.8%	3.3%	0.1%	38.8%	5.1%	1.1%	3.9%	0.0%	10.1%	5.2%	32.2%	3.7%	0.1%	41.2%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-039 Drew Avenue-Cowell Boulevard.ppd  
 Date : 10/16/2014

## Bank 1 Count = Peds & Bikes

START TIME	Drew Avenue Southbound					Cowell Boulevard Westbound					Drew Avenue Northbound					Cowell Boulevard Eastbound					Total	Ped Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	0	0	0	0	0	5	0	0	5	0	0	1	4	1	0	0	0	8	0	6	12
07:15	0	0	0	1	0	1	5	0	0	6	0	0	0	2	0	0	2	0	11	2	8	14
07:30	0	0	0	1	0	0	7	0	0	7	0	0	0	0	0	0	0	0	18	0	7	19
07:45	0	0	1	1	1	0	5	0	0	5	0	0	1	4	1	0	1	0	14	1	8	19
<b>Total</b>	0	0	1	3	1	1	22	0	0	23	0	0	2	10	2	0	3	0	51	3	29	64
08:00	0	0	0	0	0	0	4	0	0	4	1	0	0	4	1	0	2	0	8	2	7	12
08:15	0	0	0	1	0	0	7	0	0	7	1	1	0	1	2	0	1	0	60	1	10	62
08:30	0	1	0	2	1	0	29	0	0	29	4	0	1	2	5	0	1	0	43	1	36	47
08:45	0	0	0	0	0	0	16	1	0	17	6	0	1	1	7	0	0	1	10	1	25	11
<b>Total</b>	0	1	0	3	1	0	56	1	0	57	12	1	2	8	15	0	4	1	121	5	78	132
16:00	0	0	2	1	2	0	1	0	0	1	2	0	0	4	2	0	7	1	24	8	13	29
16:15	0	0	0	2	0	0	6	0	0	6	0	0	0	12	0	0	5	0	19	5	11	33
16:30	0	0	0	6	0	0	4	0	0	4	0	0	0	7	0	1	13	1	9	15	19	22
16:45	0	0	0	9	0	0	5	0	0	5	1	0	0	4	1	0	10	0	10	10	16	23
<b>Total</b>	0	0	2	18	2	0	16	0	0	16	3	0	0	27	3	1	35	2	62	38	59	107
17:00	0	1	0	2	1	0	1	0	0	1	2	1	3	11	6	0	13	1	8	14	22	21
17:15	0	1	0	3	1	0	6	0	0	6	0	0	0	3	0	0	13	1	21	14	21	27
17:30	0	0	0	7	0	1	1	0	0	2	0	0	0	2	0	1	11	1	21	13	15	30
17:45	1	0	0	2	1	2	6	0	0	8	1	0	0	3	1	0	11	3	19	14	24	24
<b>Total</b>	1	2	0	14	3	3	14	0	0	17	3	1	3	19	7	1	48	6	69	55	82	102
<b>Grand Total</b>	1	3	3	38	7	4	108	1	0	113	18	2	7	64	27	2	90	9	303	101	248	405
Apprch %	14.3%	42.9%	42.9%			3.5%	95.6%	0.9%			66.7%	7.4%	25.9%			2.0%	89.1%	8.9%				
Total %	0.4%	1.2%	1.2%		2.8%	1.6%	43.5%	0.4%		45.6%	7.3%	0.8%	2.8%		10.9%	0.8%	36.3%	3.6%		40.7%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-040 Research Park Drive-Cowell Boulevard-Richards Boulevard  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	Research Park Drive Southbound					Cowell Boulevard Westbound					Research Park Drive Northbound					Richards Boulevard Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	2	1	20	0	23	2	63	2	0	67	10	0	0	0	10	7	38	16	2	63	163	2
07:15	0	1	24	0	25	5	75	4	0	84	10	2	5	0	17	24	38	27	9	98	224	9
07:30	1	4	26	0	31	6	112	2	0	120	21	3	3	0	27	30	88	17	5	140	318	5
07:45	1	3	40	1	45	11	126	3	0	140	13	0	4	0	17	30	110	36	7	183	385	8
<b>Total</b>	<b>4</b>	<b>9</b>	<b>110</b>	<b>1</b>	<b>124</b>	<b>24</b>	<b>376</b>	<b>11</b>	<b>0</b>	<b>411</b>	<b>54</b>	<b>5</b>	<b>12</b>	<b>0</b>	<b>71</b>	<b>91</b>	<b>274</b>	<b>96</b>	<b>23</b>	<b>484</b>	<b>1090</b>	<b>24</b>
08:00	3	7	28	0	38	11	106	6	0	123	16	1	9	0	26	40	104	52	4	200	387	4
08:15	4	6	21	0	31	18	101	5	0	124	13	3	14	0	30	36	117	34	2	189	374	2
08:30	4	5	24	0	33	12	173	4	0	189	15	1	4	0	20	37	101	34	7	179	421	7
08:45	9	5	15	0	29	5	119	5	0	129	18	2	3	0	23	23	94	32	7	156	337	7
<b>Total</b>	<b>20</b>	<b>23</b>	<b>88</b>	<b>0</b>	<b>131</b>	<b>46</b>	<b>499</b>	<b>20</b>	<b>0</b>	<b>565</b>	<b>62</b>	<b>7</b>	<b>30</b>	<b>0</b>	<b>99</b>	<b>136</b>	<b>416</b>	<b>152</b>	<b>20</b>	<b>724</b>	<b>1519</b>	<b>20</b>
16:00	3	5	26	0	34	5	135	3	0	143	39	5	16	0	60	28	117	18	9	172	409	9
16:15	10	4	28	0	42	4	144	8	0	156	21	9	7	0	37	32	163	11	13	219	454	13
16:30	18	0	26	0	44	6	148	10	0	164	40	3	12	0	55	30	158	12	7	207	470	7
16:45	9	1	21	0	31	12	127	12	0	151	28	3	10	0	41	26	164	11	11	212	435	11
<b>Total</b>	<b>40</b>	<b>10</b>	<b>101</b>	<b>0</b>	<b>151</b>	<b>27</b>	<b>554</b>	<b>33</b>	<b>0</b>	<b>614</b>	<b>128</b>	<b>20</b>	<b>45</b>	<b>0</b>	<b>193</b>	<b>116</b>	<b>602</b>	<b>52</b>	<b>40</b>	<b>810</b>	<b>1768</b>	<b>40</b>
17:00	11	4	37	0	52	9	189	10	0	208	50	10	13	0	73	29	132	12	9	182	515	9
17:15	6	2	20	0	28	7	125	6	0	138	33	3	8	0	44	32	150	11	7	200	410	7
17:30	8	3	39	0	50	5	144	11	0	160	32	2	7	0	41	37	142	16	10	205	456	10
17:45	9	2	27	0	38	5	129	9	0	143	14	1	6	0	21	26	137	15	10	188	390	10
<b>Total</b>	<b>34</b>	<b>11</b>	<b>123</b>	<b>0</b>	<b>168</b>	<b>26</b>	<b>587</b>	<b>36</b>	<b>0</b>	<b>649</b>	<b>129</b>	<b>16</b>	<b>34</b>	<b>0</b>	<b>179</b>	<b>124</b>	<b>561</b>	<b>54</b>	<b>36</b>	<b>775</b>	<b>1771</b>	<b>36</b>
<b>Grand Total</b>	<b>98</b>	<b>53</b>	<b>422</b>	<b>1</b>	<b>574</b>	<b>123</b>	<b>2016</b>	<b>100</b>	<b>0</b>	<b>2239</b>	<b>373</b>	<b>48</b>	<b>121</b>	<b>0</b>	<b>542</b>	<b>467</b>	<b>1853</b>	<b>354</b>	<b>119</b>	<b>2793</b>	<b>6148</b>	<b>120</b>
Apprch %	17.1%	9.2%	73.5%	0.2%		5.5%	90.0%	4.5%	0.0%		68.8%	8.9%	22.3%	0.0%		16.7%	66.3%	12.7%	4.3%			
Total %	1.6%	0.9%	6.9%	0.0%	9.3%	2.0%	32.8%	1.6%	0.0%	36.4%	6.1%	0.8%	2.0%	0.0%	8.8%	7.6%	30.1%	5.8%	1.9%	45.4%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-041 Danbury Street-Lillard Drive.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	Driveway Southbound					Lillard Drive Westbound					Danbury Street Northbound					Lillard Drive Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	1	14	0	0	15	6	0	3	0	9	0	9	9	0	18	42	0
07:15	0	0	0	0	0	4	32	0	0	36	31	0	8	0	39	0	6	5	0	11	86	0
07:30	0	0	0	0	0	3	31	0	0	34	30	0	9	0	39	0	16	19	0	35	108	0
07:45	0	0	0	0	0	2	39	0	0	41	30	0	9	0	39	0	13	18	0	31	111	0
<b>Total</b>	0	0	0	0	0	10	116	0	0	126	97	0	29	0	126	0	44	51	0	95	347	0
08:00	0	0	0	0	0	20	25	0	0	45	31	0	10	0	41	0	16	27	0	43	129	0
08:15	0	0	0	0	0	47	41	0	0	88	58	0	25	0	83	0	17	40	0	57	228	0
08:30	0	0	0	0	0	13	25	0	0	38	45	0	11	0	56	0	22	33	0	55	149	0
08:45	0	0	0	0	0	2	38	0	0	40	42	0	6	0	48	1	15	15	0	31	119	0
<b>Total</b>	0	0	0	0	0	82	129	0	0	211	176	0	52	0	228	1	70	115	0	186	625	0
16:00	0	0	0	0	0	2	24	0	0	26	29	0	8	0	37	0	36	24	0	60	123	0
16:15	0	0	0	0	0	3	31	0	0	34	24	0	4	0	28	0	29	32	0	61	123	0
16:30	0	0	0	0	0	12	41	0	0	53	32	0	3	0	35	0	34	45	0	79	167	0
16:45	0	0	0	0	0	11	37	0	0	48	54	0	10	0	64	0	48	41	0	89	201	0
<b>Total</b>	0	0	0	0	0	28	133	0	0	161	139	0	25	0	164	0	147	142	0	289	614	0
17:00	0	0	0	0	0	10	38	0	0	48	29	0	9	0	38	0	46	29	0	75	161	0
17:15	1	0	0	0	1	5	42	0	0	47	22	0	7	0	29	0	47	31	0	78	155	0
17:30	0	0	1	0	1	9	38	0	0	47	14	0	6	0	20	0	55	23	0	78	146	0
17:45	0	0	0	0	0	7	46	0	0	53	26	0	5	0	31	0	39	24	0	63	147	0
<b>Total</b>	1	0	1	0	2	31	164	0	0	195	91	0	27	0	118	0	187	107	0	294	609	0
<b>Grand Total</b>	1	0	1	0	2	151	542	0	0	693	503	0	133	0	636	1	448	415	0	864	2195	0
Apprch %	50.0%	0.0%	50.0%	0.0%		21.8%	78.2%	0.0%	0.0%		79.1%	0.0%	20.9%	0.0%		0.1%	51.9%	48.0%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.1%	6.9%	24.7%	0.0%	0.0%	31.6%	22.9%	0.0%	6.1%	0.0%	29.0%	0.0%	20.4%	18.9%	0.0%	39.4%	100.0%	



# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-042 Drummond Avenue-Lillard Drive.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	Drummond Avenue Southbound					Lillard Drive Westbound					Drummond Avenue Northbound					Lillard Drive Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	1	5	0	6	0	2	4	0	6	1	2	0	0	3	13	4	0	0	17	32	0
07:15	1	0	10	0	11	0	10	5	0	15	1	2	0	0	3	11	2	0	0	13	42	0
07:30	1	2	15	0	18	0	14	1	0	15	3	0	0	0	3	22	4	0	0	26	62	0
07:45	2	1	10	0	13	0	11	3	0	14	2	1	0	0	3	20	6	0	0	26	56	0
<b>Total</b>	<b>4</b>	<b>4</b>	<b>40</b>	<b>0</b>	<b>48</b>	<b>0</b>	<b>37</b>	<b>13</b>	<b>0</b>	<b>50</b>	<b>7</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>66</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>82</b>	<b>192</b>	<b>0</b>
08:00	0	0	26	0	26	0	22	3	0	25	2	2	0	0	4	24	8	0	0	32	87	0
08:15	2	0	55	0	57	0	27	3	0	30	2	2	0	0	4	31	6	1	0	38	129	0
08:30	3	0	19	0	22	0	17	3	0	20	4	1	0	0	5	33	16	0	0	49	96	0
08:45	0	0	12	0	12	0	18	0	0	18	2	1	1	0	4	17	12	3	0	32	66	0
<b>Total</b>	<b>5</b>	<b>0</b>	<b>112</b>	<b>0</b>	<b>117</b>	<b>0</b>	<b>84</b>	<b>9</b>	<b>0</b>	<b>93</b>	<b>10</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>17</b>	<b>105</b>	<b>42</b>	<b>4</b>	<b>0</b>	<b>151</b>	<b>378</b>	<b>0</b>
16:00	1	0	11	1	13	0	6	2	0	8	1	1	0	0	2	16	12	3	0	31	54	1
16:15	1	2	16	0	19	0	4	3	0	7	3	2	1	0	6	15	16	3	0	34	66	0
16:30	2	3	13	0	18	0	9	1	0	10	1	1	0	0	2	11	9	2	1	23	53	1
16:45	2	1	19	1	23	1	8	2	0	11	1	0	1	0	2	17	17	5	0	39	75	1
<b>Total</b>	<b>6</b>	<b>6</b>	<b>59</b>	<b>2</b>	<b>73</b>	<b>1</b>	<b>27</b>	<b>8</b>	<b>0</b>	<b>36</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>12</b>	<b>59</b>	<b>54</b>	<b>13</b>	<b>1</b>	<b>127</b>	<b>248</b>	<b>3</b>
17:00	6	1	24	0	31	0	7	2	0	9	3	2	0	0	5	21	12	1	0	34	79	0
17:15	3	1	26	0	30	0	10	4	0	14	1	3	0	0	4	23	11	3	0	37	85	0
17:30	5	2	29	0	36	0	9	3	0	12	2	0	0	0	2	23	17	5	0	45	95	0
17:45	4	2	26	0	32	0	10	2	0	12	2	3	0	0	5	16	18	2	0	36	85	0
<b>Total</b>	<b>18</b>	<b>6</b>	<b>105</b>	<b>0</b>	<b>129</b>	<b>0</b>	<b>36</b>	<b>11</b>	<b>0</b>	<b>47</b>	<b>8</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>83</b>	<b>58</b>	<b>11</b>	<b>0</b>	<b>152</b>	<b>344</b>	<b>0</b>
<b>Grand Total</b>	<b>33</b>	<b>16</b>	<b>316</b>	<b>2</b>	<b>367</b>	<b>1</b>	<b>184</b>	<b>41</b>	<b>0</b>	<b>226</b>	<b>31</b>	<b>23</b>	<b>3</b>	<b>0</b>	<b>57</b>	<b>313</b>	<b>170</b>	<b>28</b>	<b>1</b>	<b>512</b>	<b>1162</b>	<b>3</b>
Apprch %	9.0%	4.4%	86.1%	0.5%		0.4%	81.4%	18.1%	0.0%		54.4%	40.4%	5.3%	0.0%		61.1%	33.2%	5.5%	0.2%			
Total %	2.8%	1.4%	27.2%	0.2%	31.6%	0.1%	15.8%	3.5%	0.0%	19.4%	2.7%	2.0%	0.3%	0.0%	4.9%	26.9%	14.6%	2.4%	0.1%	44.1%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-044 Pole Line Road-5th Street.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Pole Line Road Southbound					5th Street Westbound					Pole Line Road Northbound					5th Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	27	35	12	0	74	12	22	17	0	51	11	21	23	1	56	6	14	3	0	23	204	1
07:15	21	50	18	0	89	9	23	15	0	47	44	45	16	1	106	7	6	8	0	21	263	1
07:30	36	60	21	0	117	13	36	23	0	72	49	53	13	2	117	7	11	14	1	33	339	3
07:45	42	62	30	0	134	13	34	28	0	75	39	48	28	1	116	7	21	25	0	53	378	1
Total	126	207	81	0	414	47	115	83	0	245	143	167	80	5	395	27	52	50	1	130	1184	6
08:00	50	63	21	0	134	28	50	14	0	92	36	47	30	4	117	6	25	24	0	55	398	4
08:15	31	92	37	0	160	30	49	15	0	94	60	76	23	1	160	6	21	28	0	55	469	1
08:30	39	98	42	0	179	24	44	11	0	79	40	64	30	2	136	7	22	32	1	62	456	3
08:45	22	70	31	0	123	17	44	14	0	75	42	50	30	1	123	10	19	15	1	45	366	2
Total	142	323	131	0	596	99	187	54	0	340	178	237	113	8	536	29	87	99	2	217	1689	10
16:00	26	72	24	0	122	16	31	44	0	91	51	76	41	11	179	25	50	37	0	112	504	11
16:15	45	64	27	0	136	19	37	33	0	89	42	84	52	9	187	16	54	48	0	118	530	9
16:30	45	73	31	0	149	21	32	55	0	108	39	79	37	16	171	20	50	43	0	113	541	16
16:45	30	60	14	0	104	23	39	50	0	112	53	86	48	11	198	24	72	46	1	143	557	12
Total	146	269	96	0	511	79	139	182	0	400	185	325	178	47	735	85	226	174	1	486	2132	48
17:00	38	76	27	0	141	38	35	62	0	135	44	83	53	6	186	26	47	60	0	133	595	6
17:15	21	69	25	0	115	20	47	51	0	118	51	64	38	9	162	30	48	33	0	111	506	9
17:30	20	78	25	0	123	29	42	43	0	114	36	79	37	1	153	23	34	49	0	106	496	1
17:45	28	69	28	0	125	26	31	27	0	84	38	78	36	2	154	13	23	27	0	63	426	2
Total	107	292	105	0	504	113	155	183	0	451	169	304	164	18	655	92	152	169	0	413	2023	18
Grand Total	521	1091	413	0	2025	338	596	502	0	1436	675	1033	535	78	2321	233	517	492	4	1246	7028	82
Apprch %	25.7%	53.9%	20.4%	0.0%		23.5%	41.5%	35.0%	0.0%		29.1%	44.5%	23.1%	3.4%		18.7%	41.5%	39.5%	0.3%			
Total %	7.4%	15.5%	5.9%	0.0%	28.8%	4.8%	8.5%	7.1%	0.0%	20.4%	9.6%	14.7%	7.6%	1.1%	33.0%	3.3%	7.4%	7.0%	0.1%	17.7%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-045 L Street-5th Street.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	L Street Southbound					5th Street Westbound					L Street Northbound					5th Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	4	20	5	0	29	4	26	2	0	32	3	12	11	0	26	3	11	5	0	19	106	0
07:15	5	20	13	0	38	6	60	19	0	85	7	9	1	0	17	3	12	5	0	20	160	0
07:30	7	26	15	0	48	6	71	20	0	97	7	14	7	0	28	7	20	9	0	36	209	0
07:45	16	29	20	0	65	10	62	10	0	82	13	13	7	0	33	6	33	19	0	58	238	0
Total	32	95	53	0	180	26	219	51	0	296	30	48	26	0	104	19	76	38	0	133	713	0
08:00	16	37	20	0	73	9	80	12	0	101	9	20	7	0	36	13	36	17	0	66	276	0
08:15	19	41	14	0	74	17	83	19	0	119	12	16	8	0	36	7	42	15	0	64	293	0
08:30	10	42	19	0	71	14	107	8	0	129	20	18	11	0	49	6	41	15	0	62	311	0
08:45	5	45	14	0	64	16	86	6	0	108	18	20	10	0	48	9	29	18	0	56	276	0
Total	50	165	67	0	282	56	356	45	0	457	59	74	36	0	169	35	148	65	0	248	1156	0
16:00	10	19	12	0	41	17	75	22	0	114	27	41	36	0	104	16	64	24	0	104	363	0
16:15	11	32	19	0	62	15	77	17	0	109	18	42	26	0	86	16	78	30	0	124	381	0
16:30	8	37	14	0	59	21	79	17	0	117	21	43	30	0	94	20	77	25	0	122	392	0
16:45	13	35	23	0	71	13	92	18	0	123	18	52	25	0	95	20	89	35	0	144	433	0
Total	42	123	68	0	233	66	323	74	0	463	84	178	117	0	379	72	308	114	0	494	1569	0
17:00	8	28	8	0	44	10	90	16	0	116	26	58	31	0	115	18	84	28	0	130	405	0
17:15	16	20	15	0	51	17	92	15	0	124	30	50	29	0	109	18	76	32	0	126	410	0
17:30	16	26	13	0	55	19	77	20	0	116	28	39	16	0	83	26	62	19	0	107	361	0
17:45	4	30	14	0	48	14	76	11	0	101	25	42	20	0	87	18	33	15	0	66	302	0
Total	44	104	50	0	198	60	335	62	0	457	109	189	96	0	394	80	255	94	0	429	1478	0
Grand Total	168	487	238	0	893	208	1233	232	0	1673	282	489	275	0	1046	206	787	311	0	1304	4916	0
Apprch %	18.8%	54.5%	26.7%	0.0%		12.4%	73.7%	13.9%	0.0%		27.0%	46.7%	26.3%	0.0%		15.8%	60.4%	23.8%	0.0%			
Total %	3.4%	9.9%	4.8%	0.0%	18.2%	4.2%	25.1%	4.7%	0.0%	34.0%	5.7%	9.9%	5.6%	0.0%	21.3%	4.2%	16.0%	6.3%	0.0%	26.5%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-046 G Street-5th Street.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	G Street Southbound					5th Street Westbound					G Street Northbound					5th Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	1	4	0	0	5	1	33	1	0	35	4	3	1	0	8	2	12	5	0	19	67	0
07:15	0	6	0	0	6	2	65	8	0	75	5	4	1	0	10	0	20	1	0	21	112	0
07:30	3	7	1	0	11	9	77	4	0	90	0	3	7	0	10	1	32	5	0	38	149	0
07:45	4	12	2	0	18	11	87	6	0	104	1	10	5	0	16	2	50	4	0	56	194	0
Total	8	29	3	0	40	23	262	19	0	304	10	20	14	0	44	5	114	15	0	134	522	0
08:00	4	4	3	0	11	10	79	6	0	95	3	6	8	0	17	4	50	2	0	56	179	0
08:15	6	6	3	0	15	8	108	9	0	125	2	8	8	0	18	3	54	7	0	64	222	0
08:30	7	11	1	0	19	6	119	7	0	132	7	10	6	0	23	3	60	3	0	66	240	0
08:45	9	7	4	0	20	11	98	9	0	118	1	8	1	0	10	4	53	8	0	65	213	0
Total	26	28	11	0	65	35	404	31	0	470	13	32	23	0	68	14	217	20	0	251	854	0
16:00	6	16	4	0	26	19	83	10	0	112	11	20	9	0	40	5	97	13	0	115	293	0
16:15	10	14	6	0	30	10	80	12	0	102	11	19	17	0	47	4	96	6	0	106	285	0
16:30	10	14	6	0	30	13	97	9	0	119	7	27	11	0	45	5	117	13	0	135	329	0
16:45	12	13	5	0	30	15	96	12	0	123	9	16	11	0	36	8	131	13	0	152	341	0
Total	38	57	21	0	116	57	356	43	0	456	38	82	48	0	168	22	441	45	0	508	1248	0
17:00	7	14	10	0	31	12	93	16	0	121	21	36	5	0	62	8	117	15	0	140	354	0
17:15	11	7	6	0	24	15	101	8	0	124	12	12	14	0	38	13	102	15	0	130	316	0
17:30	8	11	5	0	24	13	88	15	0	116	13	21	12	0	46	7	88	15	0	110	296	0
17:45	4	12	7	0	23	12	65	11	0	88	5	24	3	0	32	14	61	1	0	76	219	0
Total	30	44	28	0	102	52	347	50	0	449	51	93	34	0	178	42	368	46	0	456	1185	0
Grand Total	102	158	63	0	323	167	1369	143	0	1679	112	227	119	0	458	83	1140	126	0	1349	3809	0
Apprch %	31.6%	48.9%	19.5%	0.0%		9.9%	81.5%	8.5%	0.0%		24.5%	49.6%	26.0%	0.0%		6.2%	84.5%	9.3%	0.0%			
Total %	2.7%	4.1%	1.7%	0.0%	8.5%	4.4%	35.9%	3.8%	0.0%	44.1%	2.9%	6.0%	3.1%	0.0%	12.0%	2.2%	29.9%	3.3%	0.0%	35.4%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-047 F Street-5th Street.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	F Street Southbound					5th Street Westbound					F Street Northbound					5th Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	2	10	4	0	16	0	26	6	0	32	2	9	2	0	13	5	13	4	0	22	83	0
07:15	3	21	7	0	31	3	63	7	0	73	1	10	1	0	12	2	21	5	0	28	144	0
07:30	6	28	15	0	49	5	65	4	0	74	2	10	2	0	14	4	27	3	0	34	171	0
07:45	12	41	13	0	66	2	94	0	0	96	2	15	2	0	19	4	44	7	0	55	236	0
<b>Total</b>	<b>23</b>	<b>100</b>	<b>39</b>	<b>0</b>	<b>162</b>	<b>10</b>	<b>248</b>	<b>17</b>	<b>0</b>	<b>275</b>	<b>7</b>	<b>44</b>	<b>7</b>	<b>0</b>	<b>58</b>	<b>15</b>	<b>105</b>	<b>19</b>	<b>0</b>	<b>139</b>	<b>634</b>	<b>0</b>
08:00	8	41	13	0	62	6	71	7	0	84	1	22	1	0	24	4	42	3	0	49	219	0
08:15	9	36	12	0	57	7	87	14	0	108	3	18	1	0	22	4	53	5	0	62	249	0
08:30	11	39	20	0	70	3	119	12	0	134	5	11	0	0	16	5	49	2	0	56	276	0
08:45	14	38	12	0	64	4	97	5	0	106	2	14	3	0	19	3	56	3	0	62	251	0
<b>Total</b>	<b>42</b>	<b>154</b>	<b>57</b>	<b>0</b>	<b>253</b>	<b>20</b>	<b>374</b>	<b>38</b>	<b>0</b>	<b>432</b>	<b>11</b>	<b>65</b>	<b>5</b>	<b>0</b>	<b>81</b>	<b>16</b>	<b>200</b>	<b>13</b>	<b>0</b>	<b>229</b>	<b>995</b>	<b>0</b>
16:00	20	52	9	0	81	8	86	12	0	106	13	38	7	0	58	15	87	10	0	112	357	0
16:15	15	42	10	0	67	10	85	10	0	105	11	40	9	0	60	18	95	11	0	124	356	0
16:30	10	49	13	0	72	6	86	10	0	102	11	38	5	0	54	21	114	19	0	154	382	0
16:45	12	51	14	0	77	12	85	16	0	113	13	46	10	0	69	10	124	15	0	149	408	0
<b>Total</b>	<b>57</b>	<b>194</b>	<b>46</b>	<b>0</b>	<b>297</b>	<b>36</b>	<b>342</b>	<b>48</b>	<b>0</b>	<b>426</b>	<b>48</b>	<b>162</b>	<b>31</b>	<b>0</b>	<b>241</b>	<b>64</b>	<b>420</b>	<b>55</b>	<b>0</b>	<b>539</b>	<b>1503</b>	<b>0</b>
17:00	11	49	20	0	80	13	97	25	0	135	20	46	15	0	81	16	108	6	0	130	426	0
17:15	16	48	16	0	80	7	85	16	0	108	16	50	12	0	78	16	112	19	0	147	413	0
17:30	17	49	13	0	79	5	91	11	0	107	12	45	2	0	59	18	97	17	0	132	377	0
17:45	11	51	8	0	70	7	68	13	0	88	14	31	10	0	55	21	71	16	0	108	321	0
<b>Total</b>	<b>55</b>	<b>197</b>	<b>57</b>	<b>0</b>	<b>309</b>	<b>32</b>	<b>341</b>	<b>65</b>	<b>0</b>	<b>438</b>	<b>62</b>	<b>172</b>	<b>39</b>	<b>0</b>	<b>273</b>	<b>71</b>	<b>388</b>	<b>58</b>	<b>0</b>	<b>517</b>	<b>1537</b>	<b>0</b>
<b>Grand Total</b>	<b>177</b>	<b>645</b>	<b>199</b>	<b>0</b>	<b>1021</b>	<b>98</b>	<b>1305</b>	<b>168</b>	<b>0</b>	<b>1571</b>	<b>128</b>	<b>443</b>	<b>82</b>	<b>0</b>	<b>653</b>	<b>166</b>	<b>1113</b>	<b>145</b>	<b>0</b>	<b>1424</b>	<b>4669</b>	<b>0</b>
Apprch %	17.3%	63.2%	19.5%	0.0%		6.2%	83.1%	10.7%	0.0%		19.6%	67.8%	12.6%	0.0%		11.7%	78.2%	10.2%	0.0%			
Total %	3.8%	13.8%	4.3%	0.0%	21.9%	2.1%	28.0%	3.6%	0.0%	33.6%	2.7%	9.5%	1.8%	0.0%	14.0%	3.6%	23.8%	3.1%	0.0%	30.5%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-048 B Street-5th Street-Russell Boulevard.ppd

Date : 10/16/2014

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	B Street Southbound					5th Street Westbound					B Street Northbound					Russell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	1	15	2	0	18	5	22	5	0	32	13	10	3	0	26	0	25	20	0	45	121	0
07:15	1	20	1	0	22	7	45	12	0	64	26	35	1	0	62	1	26	26	0	53	201	0
07:30	5	40	3	0	48	5	59	24	0	88	37	52	2	0	91	1	25	42	0	68	295	0
07:45	5	35	4	0	44	11	78	11	0	100	41	29	3	0	73	1	56	39	0	96	313	0
Total	12	110	10	0	132	28	204	52	0	284	117	126	9	0	252	3	132	127	0	262	930	0
08:00	10	38	3	0	51	13	49	14	0	76	39	30	3	0	72	4	61	38	0	103	302	0
08:15	13	58	7	0	78	13	55	25	0	93	41	34	6	0	81	3	57	47	0	107	359	0
08:30	14	44	6	0	64	31	97	6	0	134	43	14	3	0	60	5	60	63	0	128	386	0
08:45	6	65	6	0	77	19	82	11	0	112	34	14	9	0	57	5	66	61	0	132	378	0
Total	43	205	22	0	270	76	283	56	0	415	157	92	21	0	270	17	244	209	0	470	1425	0
16:00	9	21	4	0	34	9	81	15	0	105	37	38	5	0	80	12	107	96	0	215	434	0
16:15	16	34	4	0	54	12	87	11	0	110	45	37	11	0	93	6	102	110	0	218	475	0
16:30	9	38	3	0	50	10	118	8	0	136	54	34	14	0	102	7	144	112	0	263	551	0
16:45	14	33	6	0	53	11	101	10	0	122	34	47	17	0	98	6	122	109	0	237	510	0
Total	48	126	17	0	191	42	387	44	0	473	170	156	47	0	373	31	475	427	0	933	1970	0
17:00	11	37	3	0	51	14	111	13	0	138	48	43	12	0	103	7	123	105	0	235	527	0
17:15	9	31	4	0	44	12	99	19	0	130	61	45	17	0	123	3	110	98	0	211	508	0
17:30	14	34	6	0	54	10	112	15	0	137	40	31	9	0	80	9	106	91	0	206	477	0
17:45	6	29	13	0	48	6	89	7	0	102	52	49	9	0	110	3	103	90	0	196	456	0
Total	40	131	26	0	197	42	411	54	0	507	201	168	47	0	416	22	442	384	0	848	1968	0
Grand Total	143	572	75	0	790	188	1285	206	0	1679	645	542	124	0	1311	73	1293	1147	0	2513	6293	0
Apprch %	18.1%	72.4%	9.5%	0.0%		11.2%	76.5%	12.3%	0.0%		49.2%	41.3%	9.5%	0.0%		2.9%	51.5%	45.6%	0.0%			
Total %	2.3%	9.1%	1.2%	0.0%	12.6%	3.0%	20.4%	3.3%	0.0%	26.7%	10.2%	8.6%	2.0%	0.0%	20.8%	1.2%	20.5%	18.2%	0.0%	39.9%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-049 A Street-Russell Boulevard.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	A Street Southbound					Russell Boulevard Westbound					A Street Northbound					Russell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	3	0	3	0	37	2	0	39	11	0	0	0	11	4	46	0	0	50	103	0
07:15	0	0	1	0	1	0	71	0	0	71	8	2	4	0	14	3	47	0	0	50	136	0
07:30	2	0	2	0	4	0	89	0	0	89	11	1	1	0	13	5	69	0	0	74	180	0
07:45	3	0	6	0	9	0	131	2	0	133	19	2	6	0	27	4	88	0	0	92	261	0
Total	5	0	12	0	17	0	328	4	0	332	49	5	11	0	65	16	250	0	0	266	680	0
08:00	3	0	4	0	7	0	90	6	0	96	18	8	1	0	27	7	118	0	0	125	255	0
08:15	1	0	4	0	5	0	98	5	0	103	14	3	4	0	21	4	101	0	0	105	234	0
08:30	2	0	8	0	10	0	144	2	0	146	14	1	2	0	17	7	135	0	0	142	315	0
08:45	4	0	5	0	9	0	121	6	0	127	23	5	3	0	31	4	120	0	0	124	291	0
Total	10	0	21	0	31	0	453	19	0	472	69	17	10	0	96	22	474	0	0	496	1095	0
16:00	4	0	8	0	12	0	119	5	0	124	21	2	5	0	28	4	201	0	0	205	369	0
16:15	4	0	2	0	6	0	133	4	0	137	20	5	8	0	33	8	222	0	0	230	406	0
16:30	3	0	5	0	8	0	163	7	0	170	31	2	16	0	49	4	250	0	0	254	481	0
16:45	8	0	3	0	11	0	143	0	0	143	22	6	5	0	33	1	226	0	0	227	414	0
Total	19	0	18	0	37	0	558	16	0	574	94	15	34	0	143	17	899	0	0	916	1670	0
17:00	0	0	4	0	4	0	174	3	0	177	25	9	9	0	43	5	245	0	1	251	475	1
17:15	1	0	6	0	7	0	177	2	0	179	21	12	12	0	45	10	211	0	0	221	452	0
17:30	2	0	16	0	18	0	157	1	0	158	21	3	5	0	29	8	199	0	1	208	413	1
17:45	3	0	6	0	9	0	163	3	0	166	25	4	12	0	41	6	185	0	0	191	407	0
Total	6	0	32	0	38	0	671	9	0	680	92	28	38	0	158	29	840	0	2	871	1747	2
Grand Total	40	0	83	0	123	0	2010	48	0	2058	304	65	93	0	462	84	2463	0	2	2549	5192	2
Apprch %	32.5%	0.0%	67.5%	0.0%		0.0%	97.7%	2.3%	0.0%		65.8%	14.1%	20.1%	0.0%		3.3%	96.6%	0.0%	0.1%			
Total %	0.8%	0.0%	1.6%	0.0%	2.4%	0.0%	38.7%	0.9%	0.0%	39.6%	5.9%	1.3%	1.8%	0.0%	8.9%	1.6%	47.4%	0.0%	0.0%	49.1%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-050 Howard Way-Russell Boulevard.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	College Park Southbound					Russell Boulevard Westbound					Howard Way Northbound					Russell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	2	0	1	0	3	12	29	14	0	55	5	0	6	0	11	6	36	13	1	56	125	1
07:15	2	0	0	0	2	22	60	0	0	82	5	0	8	0	13	0	49	26	0	75	172	0
07:30	1	0	2	0	3	27	70	4	0	101	6	0	8	0	14	3	66	26	0	95	213	0
07:45	1	0	5	0	6	36	113	7	0	156	13	0	5	0	18	5	79	41	1	126	306	1
Total	6	0	8	0	14	97	272	25	0	394	29	0	27	0	56	14	230	106	2	352	816	2
08:00	4	0	4	0	8	36	63	3	0	102	13	0	10	0	23	4	103	29	0	136	269	0
08:15	2	0	3	0	5	40	87	0	0	127	10	0	5	0	15	2	92	39	0	133	280	0
08:30	2	1	1	0	4	47	108	2	0	157	12	0	8	0	20	4	127	52	1	184	365	1
08:45	3	1	0	0	4	55	112	2	0	169	9	0	8	0	17	3	127	70	0	200	390	0
Total	11	2	8	0	21	178	370	7	0	555	44	0	31	0	75	13	449	190	1	653	1304	1
16:00	2	0	5	0	7	12	112	1	2	127	41	1	30	0	72	1	164	18	3	186	392	5
16:15	3	1	2	0	6	18	146	4	0	168	39	0	52	0	91	2	175	25	1	203	468	1
16:30	1	0	4	0	5	29	170	3	1	203	49	1	53	0	103	2	209	27	2	240	551	3
16:45	2	0	2	0	4	14	154	5	0	173	38	1	34	0	73	2	195	23	2	222	472	2
Total	8	1	13	0	22	73	582	13	3	671	167	3	169	0	339	7	743	93	8	851	1883	11
17:00	3	0	1	0	4	15	166	5	2	188	59	1	42	0	102	2	178	14	2	196	490	4
17:15	0	0	5	0	5	11	192	5	1	209	26	0	23	0	49	2	188	14	2	206	469	3
17:30	1	0	3	0	4	22	173	3	1	199	31	0	28	0	59	5	176	27	1	209	471	2
17:45	3	0	4	0	7	25	151	6	0	182	25	0	24	0	49	5	148	39	2	194	432	2
Total	7	0	13	0	20	73	682	19	4	778	141	1	117	0	259	14	690	94	7	805	1862	11
Grand Total	32	3	42	0	77	421	1906	64	7	2398	381	4	344	0	729	48	2112	483	18	2661	5865	25
Apprch %	41.6%	3.9%	54.5%	0.0%		17.6%	79.5%	2.7%	0.3%		52.3%	0.5%	47.2%	0.0%		1.8%	79.4%	18.2%	0.7%			
Total %	0.5%	0.1%	0.7%	0.0%	1.3%	7.2%	32.5%	1.1%	0.1%	40.9%	6.5%	0.1%	5.9%	0.0%	12.4%	0.8%	36.0%	8.2%	0.3%	45.4%	100.0%	



# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-051 California Avenue-Russell Boulevard.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	Driveway Southbound					Russell Boulevard Westbound					California Avenue Northbound					Russell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	3	46	0	0	49	0	0	4	0	4	0	57	11	0	68	121	0
07:15	0	0	1	0	1	3	61	0	1	65	0	0	2	0	2	0	74	18	0	92	160	1
07:30	0	0	0	0	0	8	77	0	0	85	0	0	3	0	3	0	96	23	0	119	207	0
07:45	0	0	0	0	0	20	123	0	0	143	0	0	4	0	4	0	127	39	0	166	313	0
<b>Total</b>	0	0	1	0	1	34	307	0	1	342	0	0	13	0	13	0	354	91	0	445	801	1
08:00	0	0	0	0	0	16	74	0	0	90	0	0	4	0	4	0	127	19	0	146	240	0
08:15	0	0	0	0	0	11	92	0	0	103	0	0	6	0	6	0	138	22	0	160	269	0
08:30	0	0	0	0	0	21	126	0	0	147	0	0	6	0	6	0	171	37	0	208	361	0
08:45	0	0	0	0	0	17	127	0	0	144	0	0	21	0	21	0	199	52	0	251	416	0
<b>Total</b>	0	0	0	0	0	65	419	0	0	484	0	0	37	0	37	0	635	130	0	765	1286	0
16:00	0	0	0	0	0	4	187	0	2	193	0	0	47	0	47	0	183	12	0	195	435	2
16:15	0	0	1	0	1	7	188	0	1	196	0	0	43	0	43	0	171	10	0	181	421	1
16:30	0	0	0	0	0	9	217	0	0	226	0	0	49	0	49	0	228	15	0	243	518	0
16:45	0	0	1	0	1	5	213	0	0	218	0	0	35	0	35	0	190	17	0	207	461	0
<b>Total</b>	0	0	2	0	2	25	805	0	3	833	0	0	174	0	174	0	772	54	0	826	1835	3
17:00	0	0	1	0	1	3	238	0	2	243	0	0	52	0	52	0	186	18	0	204	500	2
17:15	0	0	0	0	0	6	237	0	0	243	0	0	30	0	30	0	205	11	0	216	489	0
17:30	0	0	0	0	0	7	186	0	2	195	0	0	22	0	22	0	198	16	0	214	431	2
17:45	0	0	0	0	0	6	189	0	1	196	0	0	33	0	33	0	209	35	0	244	473	1
<b>Total</b>	0	0	1	0	1	22	850	0	5	877	0	0	137	0	137	0	798	80	0	878	1893	5
<b>Grand Total</b>	0	0	4	0	4	146	2381	0	9	2536	0	0	361	0	361	0	2559	355	0	2914	5815	9
Apprch %	0.0%	0.0%	100.0%	0.0%		5.8%	93.9%	0.0%	0.4%		0.0%	0.0%	100.0%	0.0%		0.0%	87.8%	12.2%	0.0%			
Total %	0.0%	0.0%	0.1%	0.0%	0.1%	2.5%	40.9%	0.0%	0.2%	43.6%	0.0%	0.0%	6.2%	0.0%	6.2%	0.0%	44.0%	6.1%	0.0%	50.1%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-052 Anderson Road-Russell Boulevard.ppd

Date : 10/28/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Anderson Road Southbound					Russell Boulevard Westbound					La Rue Road Northbound					Russell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	11	32	6	0	49	11	22	10	0	43	8	9	13	1	31	6	34	10	0	50	173	1
07:15	9	27	10	0	46	13	25	8	0	46	9	8	16	0	33	9	59	10	2	80	205	2
07:30	22	58	12	0	92	38	30	11	0	79	8	9	10	0	27	20	86	25	2	133	331	2
07:45	21	74	14	1	110	56	57	10	0	123	11	14	25	0	50	20	107	23	1	151	434	2
<b>Total</b>	<b>63</b>	<b>191</b>	<b>42</b>	<b>1</b>	<b>297</b>	<b>118</b>	<b>134</b>	<b>39</b>	<b>0</b>	<b>291</b>	<b>36</b>	<b>40</b>	<b>64</b>	<b>1</b>	<b>141</b>	<b>55</b>	<b>286</b>	<b>68</b>	<b>5</b>	<b>414</b>	<b>1143</b>	<b>7</b>
08:00	19	46	14	0	79	47	61	16	0	124	10	15	24	0	49	18	124	18	4	164	416	4
08:15	25	64	25	0	114	35	43	11	0	89	14	12	20	0	46	17	107	29	3	156	405	3
08:30	38	78	18	1	135	66	48	17	0	131	9	15	28	0	52	18	127	42	0	187	505	1
08:45	35	87	13	0	135	76	55	12	0	143	15	18	41	0	74	12	148	35	0	195	547	0
<b>Total</b>	<b>117</b>	<b>275</b>	<b>70</b>	<b>1</b>	<b>463</b>	<b>224</b>	<b>207</b>	<b>56</b>	<b>0</b>	<b>487</b>	<b>48</b>	<b>60</b>	<b>113</b>	<b>0</b>	<b>221</b>	<b>65</b>	<b>506</b>	<b>124</b>	<b>7</b>	<b>702</b>	<b>1873</b>	<b>8</b>
16:00	41	26	19	0	86	41	141	31	0	213	35	35	72	0	142	13	97	14	2	126	567	2
16:15	35	37	12	0	84	54	127	29	0	210	33	40	59	1	133	14	94	12	3	123	550	4
16:30	48	26	9	2	85	45	146	29	0	220	51	55	88	0	194	20	87	10	4	121	620	6
16:45	38	26	11	1	76	39	130	28	0	197	43	57	70	0	170	23	97	11	3	134	577	4
<b>Total</b>	<b>162</b>	<b>115</b>	<b>51</b>	<b>3</b>	<b>331</b>	<b>179</b>	<b>544</b>	<b>117</b>	<b>0</b>	<b>840</b>	<b>162</b>	<b>187</b>	<b>289</b>	<b>1</b>	<b>639</b>	<b>70</b>	<b>375</b>	<b>47</b>	<b>12</b>	<b>504</b>	<b>2314</b>	<b>16</b>
17:00	28	26	15	0	69	46	166	37	0	249	43	73	87	0	203	17	95	15	2	129	650	2
17:15	25	35	16	1	77	47	130	21	0	198	38	70	85	0	193	13	91	12	0	116	584	1
17:30	43	36	10	0	89	53	133	21	0	207	25	63	81	0	169	21	98	15	1	135	600	1
17:45	41	47	9	1	98	59	106	28	0	193	30	50	80	0	160	11	81	29	3	124	575	4
<b>Total</b>	<b>137</b>	<b>144</b>	<b>50</b>	<b>2</b>	<b>333</b>	<b>205</b>	<b>535</b>	<b>107</b>	<b>0</b>	<b>847</b>	<b>136</b>	<b>256</b>	<b>333</b>	<b>0</b>	<b>725</b>	<b>62</b>	<b>365</b>	<b>71</b>	<b>6</b>	<b>504</b>	<b>2409</b>	<b>8</b>
<b>Grand Total</b>	<b>479</b>	<b>725</b>	<b>213</b>	<b>7</b>	<b>1424</b>	<b>726</b>	<b>1420</b>	<b>319</b>	<b>0</b>	<b>2465</b>	<b>382</b>	<b>543</b>	<b>799</b>	<b>2</b>	<b>1726</b>	<b>252</b>	<b>1532</b>	<b>310</b>	<b>30</b>	<b>2124</b>	<b>7739</b>	<b>39</b>
Apprch %	33.6%	50.9%	15.0%	0.5%		29.5%	57.6%	12.9%	0.0%		22.1%	31.5%	46.3%	0.1%		11.9%	72.1%	14.6%	1.4%			
Total %	6.2%	9.4%	2.8%	0.1%	18.4%	9.4%	18.3%	4.1%	0.0%	31.9%	4.9%	7.0%	10.3%	0.0%	22.3%	3.3%	19.8%	4.0%	0.4%	27.4%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-053 Sycamore Lane-Russell Boulevard.ppd

Date : 10/28/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Sycamore Lane Southbound					Russell Boulevard Westbound					Bike Path Northbound					Russell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	6	0	15	0	21	0	30	7	0	37	0	0	0	0	0	11	43	0	0	54	112	0
07:15	2	0	20	0	22	0	42	5	0	47	0	0	0	0	0	22	83	0	0	105	174	0
07:30	10	0	26	0	36	0	41	8	0	49	0	0	0	0	0	31	127	0	1	159	244	1
07:45	16	0	32	0	48	0	79	2	0	81	0	0	0	0	0	40	133	0	0	173	302	0
<b>Total</b>	<b>34</b>	<b>0</b>	<b>93</b>	<b>0</b>	<b>127</b>	<b>0</b>	<b>192</b>	<b>22</b>	<b>0</b>	<b>214</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>104</b>	<b>386</b>	<b>0</b>	<b>1</b>	<b>491</b>	<b>832</b>	<b>1</b>
08:00	16	0	34	0	50	0	70	15	0	85	0	0	0	0	0	64	145	0	0	209	344	0
08:15	19	0	67	0	86	0	63	11	0	74	0	0	0	0	0	64	140	0	0	204	364	0
08:30	39	0	48	0	87	0	70	11	0	81	0	0	0	0	0	37	146	0	0	183	351	0
08:45	28	0	26	0	54	0	67	8	0	75	0	0	0	0	0	35	170	0	1	206	335	1
<b>Total</b>	<b>102</b>	<b>0</b>	<b>175</b>	<b>0</b>	<b>277</b>	<b>0</b>	<b>270</b>	<b>45</b>	<b>0</b>	<b>315</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>200</b>	<b>601</b>	<b>0</b>	<b>1</b>	<b>802</b>	<b>1394</b>	<b>1</b>
16:00	20	0	26	0	46	0	155	18	0	173	0	0	0	0	0	42	109	0	1	152	371	1
16:15	16	0	42	0	58	0	149	15	0	164	0	0	0	0	0	58	115	0	0	173	395	0
16:30	17	0	32	0	49	0	166	17	0	183	0	0	0	0	0	45	103	0	0	148	380	0
16:45	27	0	28	0	55	0	128	18	0	146	0	0	0	0	0	56	110	0	0	166	367	0
<b>Total</b>	<b>80</b>	<b>0</b>	<b>128</b>	<b>0</b>	<b>208</b>	<b>0</b>	<b>598</b>	<b>68</b>	<b>0</b>	<b>666</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>201</b>	<b>437</b>	<b>0</b>	<b>1</b>	<b>639</b>	<b>1513</b>	<b>1</b>
17:00	14	0	44	0	58	0	174	15	0	189	0	0	0	0	0	48	109	0	0	157	404	0
17:15	22	0	53	0	75	0	149	16	0	165	0	0	0	0	0	53	99	0	0	152	392	0
17:30	23	0	45	0	68	0	146	12	0	158	0	0	0	0	0	50	115	0	1	166	392	1
17:45	33	0	38	0	71	0	112	8	0	120	0	0	0	0	0	49	87	0	0	136	327	0
<b>Total</b>	<b>92</b>	<b>0</b>	<b>180</b>	<b>0</b>	<b>272</b>	<b>0</b>	<b>581</b>	<b>51</b>	<b>0</b>	<b>632</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>200</b>	<b>410</b>	<b>0</b>	<b>1</b>	<b>611</b>	<b>1515</b>	<b>1</b>
<b>Grand Total</b>	<b>308</b>	<b>0</b>	<b>576</b>	<b>0</b>	<b>884</b>	<b>0</b>	<b>1641</b>	<b>186</b>	<b>0</b>	<b>1827</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>705</b>	<b>1834</b>	<b>0</b>	<b>4</b>	<b>2543</b>	<b>5254</b>	<b>4</b>
Apprch %	34.8%	0.0%	65.2%	0.0%		0.0%	89.8%	10.2%	0.0%		0.0%	0.0%	0.0%	0.0%		27.7%	72.1%	0.0%	0.2%			
Total %	5.9%	0.0%	11.0%	0.0%	16.8%	0.0%	31.2%	3.5%	0.0%	34.8%	0.0%	0.0%	0.0%	0.0%	0.0%	13.4%	34.9%	0.0%	0.1%	48.4%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-054 Orchard Park Drive-Russell Boulevard.ppd  
 Date : 10/28/2014

## Unshifted Count = All Vehicles

START TIME	Southbound					Russell Boulevard Westbound					Orchard Park Drive Northbound					Russell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	1	46	0	0	47	3	0	0	0	3	0	57	7	0	64	114	0
07:15	0	0	0	0	0	0	60	0	0	60	6	0	2	0	8	0	99	8	0	107	175	0
07:30	0	0	0	0	0	4	59	0	0	63	3	0	2	0	5	0	163	17	0	180	248	0
07:45	0	0	0	0	0	9	106	0	0	115	7	0	2	0	9	0	180	37	1	218	342	1
<b>Total</b>	0	0	0	0	0	14	271	0	0	285	19	0	6	0	25	0	499	69	1	569	879	1
08:00	0	0	0	0	0	8	98	0	1	107	9	0	6	0	15	0	191	23	0	214	336	1
08:15	0	0	0	0	0	7	116	0	0	123	6	0	7	0	13	0	202	21	0	223	359	0
08:30	0	0	0	0	0	15	102	0	0	117	7	0	8	0	15	0	171	19	0	190	322	0
08:45	0	0	0	0	0	7	84	0	2	93	6	0	9	0	15	0	196	11	1	208	316	3
<b>Total</b>	0	0	0	0	0	37	400	0	3	440	28	0	30	0	58	0	760	74	1	835	1333	4
16:00	0	0	0	0	0	4	177	0	2	183	7	0	11	0	18	0	138	9	0	147	348	2
16:15	0	0	0	0	0	8	180	0	0	188	10	0	15	0	25	0	163	4	0	167	380	0
16:30	0	0	0	0	0	8	199	0	2	209	13	0	14	0	27	0	132	8	0	140	376	2
16:45	0	0	0	0	0	3	153	0	0	156	13	0	14	0	27	0	151	10	1	162	345	1
<b>Total</b>	0	0	0	0	0	23	709	0	4	736	43	0	54	0	97	0	584	31	1	616	1449	5
17:00	0	0	0	0	0	9	207	0	2	218	14	0	13	0	27	0	144	7	0	151	396	2
17:15	0	0	0	0	0	3	195	0	0	198	13	0	15	0	28	0	139	14	0	153	379	0
17:30	0	0	0	0	0	9	190	0	0	199	12	0	17	0	29	0	146	7	0	153	381	0
17:45	0	0	0	0	0	6	143	0	1	150	14	0	13	0	27	0	129	7	1	137	314	2
<b>Total</b>	0	0	0	0	0	27	735	0	3	765	53	0	58	0	111	0	558	35	1	594	1470	4
<b>Grand Total</b>	0	0	0	0	0	101	2115	0	10	2226	143	0	148	0	291	0	2401	209	4	2614	5131	14
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	95.0%	0.0%	0.4%	43.4%	49.1%	0.0%	50.9%	0.0%	5.7%	0.0%	91.9%	8.0%	0.2%	50.9%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	41.2%	0.0%	0.2%	43.4%	2.8%	0.0%	2.9%	0.0%	5.7%	0.0%	46.8%	4.1%	0.1%	50.9%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-055 SR 113 NB Ramps-Russell Boulevard.ppd  
 Date : 10/28/2014

## Unshifted Count = All Vehicles

START TIME	SR 113 NB On-Ramp Southbound					Russell Boulevard Westbound					SR 113 NB Off-Ramp Northbound					Russell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	0	42	7	0	49	15	0	12	0	27	8	47	0	0	55	131	0
07:15	0	0	0	0	0	0	55	11	0	66	36	0	32	0	68	6	82	0	0	88	222	0
07:30	0	0	0	0	0	0	53	7	0	60	28	0	48	0	76	10	127	0	0	137	273	0
07:45	0	0	0	0	0	0	109	5	0	114	92	0	55	0	147	27	162	0	0	189	450	0
<b>Total</b>	0	0	0	0	0	0	259	30	0	289	171	0	147	0	318	51	418	0	0	469	1076	0
08:00	0	0	0	0	0	0	84	19	0	103	45	0	46	0	91	21	179	0	0	200	394	0
08:15	0	0	0	0	0	0	109	15	0	124	33	0	62	0	95	10	155	0	0	165	384	0
08:30	0	0	0	0	0	0	99	17	0	116	21	0	47	0	68	6	152	0	0	158	342	0
08:45	0	0	0	0	0	0	73	14	0	87	44	2	42	0	88	9	160	0	1	170	345	1
<b>Total</b>	0	0	0	0	0	0	365	65	0	430	143	2	197	0	342	46	646	0	1	693	1465	1
16:00	0	0	0	0	0	0	130	43	0	173	62	0	46	0	108	18	99	0	0	117	398	0
16:15	0	0	0	0	0	0	166	41	0	207	72	0	48	0	120	11	120	0	0	131	458	0
16:30	0	0	0	0	0	0	147	58	0	205	82	0	45	0	127	11	96	0	0	107	439	0
16:45	0	0	0	0	0	0	121	49	0	170	67	0	53	0	120	10	108	0	1	119	409	1
<b>Total</b>	0	0	0	0	0	0	564	191	0	755	283	0	192	0	475	50	423	0	1	474	1704	1
17:00	0	0	0	0	0	0	148	63	0	211	112	1	53	0	166	19	97	0	0	116	493	0
17:15	0	0	0	0	0	0	164	55	0	219	120	0	52	0	172	15	109	0	0	124	515	0
17:30	0	0	0	0	0	0	133	65	0	198	102	1	43	0	146	8	106	0	1	115	459	1
17:45	0	0	0	0	0	0	130	37	0	167	101	0	39	0	140	9	96	0	0	105	412	0
<b>Total</b>	0	0	0	0	0	0	575	220	0	795	435	2	187	0	624	51	408	0	1	460	1879	1
<b>Grand Total</b>	0	0	0	0	0	0	1763	506	0	2269	1032	4	723	0	1759	198	1895	0	3	2096	6124	3
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	77.7%	22.3%	0.0%	37.1%	58.7%	0.2%	41.1%	0.0%	28.7%	9.4%	90.4%	0.0%	0.1%	34.2%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	28.8%	8.3%	0.0%	37.1%	16.9%	0.1%	11.8%	0.0%	28.7%	3.2%	30.9%	0.0%	0.0%	34.2%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-056 SR 113 SB Ramps-Russell Boulevard.ppd

Date : 10/28/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	SR 113 SB Ramps Southbound					Russell Boulevard Westbound					SR 113 SB On-Ramp Northbound					Russell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	21	0	2	0	23	0	28	26	0	54	0	0	0	0	0	0	34	58	0	92	169	0
07:15	28	0	4	0	32	0	50	42	0	92	0	0	0	0	0	0	63	90	0	153	277	0
07:30	42	0	13	0	55	0	58	25	0	83	0	0	0	0	0	0	93	100	0	193	331	0
07:45	61	0	45	0	106	0	147	45	0	192	0	0	0	0	0	0	139	156	0	295	593	0
<b>Total</b>	<b>152</b>	<b>0</b>	<b>64</b>	<b>0</b>	<b>216</b>	<b>0</b>	<b>283</b>	<b>138</b>	<b>0</b>	<b>421</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>329</b>	<b>404</b>	<b>0</b>	<b>733</b>	<b>1370</b>	<b>0</b>
08:00	42	0	21	0	63	0	89	49	0	138	0	0	0	0	0	0	149	150	0	299	500	0
08:15	54	0	7	0	61	0	85	59	0	144	0	0	0	0	0	0	114	122	0	236	441	0
08:30	46	0	8	0	54	0	65	56	0	121	0	0	0	0	0	0	108	130	0	238	413	0
08:45	50	0	14	0	64	0	88	28	0	116	0	0	0	0	0	0	117	123	0	240	420	0
<b>Total</b>	<b>192</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>242</b>	<b>0</b>	<b>327</b>	<b>192</b>	<b>0</b>	<b>519</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>488</b>	<b>525</b>	<b>0</b>	<b>1013</b>	<b>1774</b>	<b>0</b>
16:00	29	0	14	0	43	0	144	40	0	184	0	0	0	0	0	0	91	33	0	124	351	0
16:15	25	0	13	0	38	0	183	61	0	244	0	0	0	0	0	0	103	50	0	153	435	0
16:30	24	0	9	0	33	0	183	42	0	225	0	0	0	0	0	0	85	45	0	130	388	0
16:45	29	0	12	0	41	0	150	47	0	197	0	0	0	0	0	0	88	35	0	123	361	0
<b>Total</b>	<b>107</b>	<b>0</b>	<b>48</b>	<b>0</b>	<b>155</b>	<b>0</b>	<b>660</b>	<b>190</b>	<b>0</b>	<b>850</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>367</b>	<b>163</b>	<b>0</b>	<b>530</b>	<b>1535</b>	<b>0</b>
17:00	23	0	12	0	35	0	197	54	0	251	0	0	0	0	0	0	95	46	0	141	427	0
17:15	28	0	11	0	39	0	238	50	0	288	0	0	0	0	0	0	93	32	0	125	452	0
17:30	27	0	14	0	41	0	189	46	0	235	0	0	0	0	0	0	96	45	0	141	417	0
17:45	20	0	15	0	35	0	193	44	0	237	0	0	0	0	0	0	78	49	0	127	399	0
<b>Total</b>	<b>98</b>	<b>0</b>	<b>52</b>	<b>0</b>	<b>150</b>	<b>0</b>	<b>817</b>	<b>194</b>	<b>0</b>	<b>1011</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>362</b>	<b>172</b>	<b>0</b>	<b>534</b>	<b>1695</b>	<b>0</b>
<b>Grand Total</b>	<b>549</b>	<b>0</b>	<b>214</b>	<b>0</b>	<b>763</b>	<b>0</b>	<b>2087</b>	<b>714</b>	<b>0</b>	<b>2801</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1546</b>	<b>1264</b>	<b>0</b>	<b>2810</b>	<b>6374</b>	<b>0</b>
Apprch %	72.0%	0.0%	28.0%	0.0%		0.0%	74.5%	25.5%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	55.0%	45.0%	0.0%			
Total %	8.6%	0.0%	3.4%	0.0%	12.0%	0.0%	32.7%	11.2%	0.0%	43.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	24.3%	19.8%	0.0%	44.1%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-057 Arthur Street-Russell Boulevard.ppd

Date : 10/28/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Arthur Street Southbound					Russell Boulevard Westbound					Bike Path Northbound					Russell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	29	0	1	0	30	0	24	6	0	30	0	0	0	0	0	1	63	0	0	64	124	0
07:15	49	0	2	0	51	0	47	7	0	54	0	0	0	0	0	0	107	0	0	107	212	0
07:30	60	0	1	0	61	0	56	15	0	71	0	0	0	0	0	0	134	0	0	134	266	0
07:45	69	0	3	0	72	0	166	23	0	189	0	0	0	0	0	1	228	0	0	229	490	0
<b>Total</b>	<b>207</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>214</b>	<b>0</b>	<b>293</b>	<b>51</b>	<b>0</b>	<b>344</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>532</b>	<b>0</b>	<b>0</b>	<b>534</b>	<b>1092</b>	<b>0</b>
08:00	74	0	1	0	75	0	101	11	0	112	0	0	0	0	0	0	221	0	0	221	408	0
08:15	72	0	8	0	80	0	74	18	0	92	0	0	0	0	0	2	168	0	0	170	342	0
08:30	56	0	4	0	60	0	43	30	0	73	0	0	0	0	0	4	179	0	0	183	316	0
08:45	59	0	2	0	61	0	79	23	0	102	0	0	0	0	0	1	179	0	0	180	343	0
<b>Total</b>	<b>261</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>276</b>	<b>0</b>	<b>297</b>	<b>82</b>	<b>0</b>	<b>379</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>747</b>	<b>0</b>	<b>0</b>	<b>754</b>	<b>1409</b>	<b>0</b>
16:00	36	0	3	0	39	0	112	40	0	152	0	0	0	0	0	0	91	0	0	91	282	0
16:15	39	0	2	0	41	0	156	47	0	203	0	0	0	0	0	1	113	0	0	114	358	0
16:30	34	0	1	0	35	0	131	57	0	188	0	0	0	0	0	0	100	0	0	100	323	0
16:45	36	0	0	0	36	0	121	48	0	169	0	0	0	0	0	3	83	0	0	86	291	0
<b>Total</b>	<b>145</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>151</b>	<b>0</b>	<b>520</b>	<b>192</b>	<b>0</b>	<b>712</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>387</b>	<b>0</b>	<b>0</b>	<b>391</b>	<b>1254</b>	<b>0</b>
17:00	34	0	0	0	34	0	129	76	0	205	0	0	0	0	0	1	109	0	0	110	349	0
17:15	20	0	6	0	26	0	182	66	0	248	0	0	0	0	0	5	102	0	0	107	381	0
17:30	39	0	3	0	42	0	149	54	0	203	0	0	0	0	0	1	104	0	0	105	350	0
17:45	36	0	2	0	38	0	144	68	0	212	0	0	0	0	0	5	88	0	0	93	343	0
<b>Total</b>	<b>129</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>140</b>	<b>0</b>	<b>604</b>	<b>264</b>	<b>0</b>	<b>868</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>403</b>	<b>0</b>	<b>0</b>	<b>415</b>	<b>1423</b>	<b>0</b>
<b>Grand Total</b>	<b>742</b>	<b>0</b>	<b>39</b>	<b>0</b>	<b>781</b>	<b>0</b>	<b>1714</b>	<b>589</b>	<b>0</b>	<b>2303</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>2069</b>	<b>0</b>	<b>0</b>	<b>2094</b>	<b>5178</b>	<b>0</b>
Apprch %	95.0%	0.0%	5.0%	0.0%		0.0%	74.4%	25.6%	0.0%		0.0%	0.0%	0.0%	0.0%		1.2%	98.8%	0.0%	0.0%			
Total %	14.3%	0.0%	0.8%	0.0%	15.1%	0.0%	33.1%	11.4%	0.0%	44.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	40.0%	0.0%	0.0%	40.4%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-061 F Street-8th Street.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	F Street Southbound					8th Street Westbound					F Street Northbound					8th Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	3	17	3	0	23	0	17	0	0	17	2	16	0	0	18	2	8	3	0	13	71	0
07:15	7	29	5	0	41	6	46	10	0	62	1	22	4	0	27	0	8	2	0	10	140	0
07:30	27	55	7	0	89	5	92	9	0	106	3	17	1	0	21	0	38	4	0	42	258	0
07:45	12	58	13	0	83	3	45	7	0	55	3	22	2	0	27	7	22	6	0	35	200	0
Total	49	159	28	0	236	14	200	26	0	240	9	77	7	0	93	9	76	15	0	100	669	0
08:00	12	51	5	0	68	1	74	17	0	92	2	25	4	0	31	2	33	6	0	41	232	0
08:15	19	68	8	0	95	2	63	17	0	82	7	34	3	0	44	6	52	8	0	66	287	0
08:30	25	70	10	0	105	7	77	6	0	90	1	22	1	0	24	3	52	10	0	65	284	0
08:45	16	61	12	0	89	3	72	11	0	86	2	18	5	0	25	3	26	9	0	38	238	0
Total	72	250	35	0	357	13	286	51	0	350	12	99	13	0	124	14	163	33	0	210	1041	0
16:00	18	64	2	0	84	4	36	9	0	49	8	58	5	0	71	6	37	3	0	46	250	0
16:15	13	66	5	0	84	11	39	17	0	67	2	65	8	0	75	4	30	8	0	42	268	0
16:30	21	68	8	0	97	7	35	19	0	61	9	70	7	0	86	7	55	8	0	70	314	0
16:45	13	65	3	0	81	7	41	18	0	66	6	75	6	0	87	6	44	6	0	56	290	0
Total	65	263	18	0	346	29	151	63	0	243	25	268	26	0	319	23	166	25	0	214	1122	0
17:00	18	55	7	0	80	5	34	18	0	57	13	96	5	0	114	7	66	7	0	80	331	0
17:15	16	77	10	0	103	8	39	12	0	59	11	80	9	0	100	4	70	4	0	78	340	0
17:30	16	65	8	0	89	11	42	13	0	66	15	74	3	0	92	4	60	10	0	74	321	0
17:45	13	56	6	0	75	11	54	17	0	82	10	73	9	0	92	7	44	10	0	61	310	0
Total	63	253	31	0	347	35	169	60	0	264	49	323	26	0	398	22	240	31	0	293	1302	0
Grand Total	249	925	112	0	1286	91	806	200	0	1097	95	767	72	0	934	68	645	104	0	817	4134	0
Apprch %	19.4%	71.9%	8.7%	0.0%		8.3%	73.5%	18.2%	0.0%		10.2%	82.1%	7.7%	0.0%		8.3%	78.9%	12.7%	0.0%			
Total %	6.0%	22.4%	2.7%	0.0%	31.1%	2.2%	19.5%	4.8%	0.0%	26.5%	2.3%	18.6%	1.7%	0.0%	22.6%	1.6%	15.6%	2.5%	0.0%	19.8%	100.0%	



# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-062 B Street-8th Street.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	B Street Southbound					8th Street Westbound					B Street Northbound					8th Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	12	2	0	14	4	18	1	0	23	2	9	5	0	16	1	5	4	0	10	63	0
07:15	0	15	1	0	16	4	32	9	0	45	13	25	0	0	38	0	9	8	0	17	116	0
07:30	6	24	6	0	36	9	61	27	0	97	30	41	3	0	74	1	33	18	0	52	259	0
07:45	2	25	3	0	30	15	46	6	0	67	12	17	4	0	33	1	30	11	0	42	172	0
Total	8	76	12	0	96	32	157	43	0	232	57	92	12	0	161	3	77	41	0	121	610	0
08:00	4	23	5	0	32	12	55	4	0	71	9	26	3	0	38	2	36	18	0	56	197	0
08:15	10	58	8	0	76	9	64	13	0	86	16	38	5	0	59	1	53	13	0	67	288	0
08:30	8	54	6	0	68	18	63	5	0	86	6	11	6	0	23	2	51	29	0	82	259	0
08:45	0	27	1	0	28	32	65	1	0	98	5	12	3	0	20	3	35	16	0	54	200	0
Total	22	162	20	0	204	71	247	23	0	341	36	87	17	0	140	8	175	76	0	259	944	0
16:00	2	16	1	0	19	9	45	0	0	54	14	32	9	0	55	1	31	14	0	46	174	0
16:15	1	25	0	0	26	11	23	4	0	38	12	30	6	0	48	4	42	19	0	65	177	0
16:30	6	22	0	0	28	8	35	1	0	44	12	29	13	0	54	4	45	11	0	60	186	0
16:45	1	22	2	0	25	11	48	2	0	61	13	33	10	0	56	0	43	11	0	54	196	0
Total	10	85	3	0	98	39	151	7	0	197	51	124	38	0	213	9	161	55	0	225	733	0
17:00	3	17	0	0	20	10	37	4	0	51	14	29	10	0	53	2	69	14	0	85	209	0
17:15	7	27	1	0	35	14	39	3	0	56	20	45	9	0	74	4	68	11	0	83	248	0
17:30	3	28	2	0	33	8	49	3	0	60	10	30	20	0	60	0	56	15	0	71	224	0
17:45	1	20	4	0	25	14	45	1	0	60	11	39	8	0	58	3	52	15	0	70	213	0
Total	14	92	7	0	113	46	170	11	0	227	55	143	47	0	245	9	245	55	0	309	894	0
Grand Total	54	415	42	0	511	188	725	84	0	997	199	446	114	0	759	29	658	227	0	914	3181	0
Apprch %	10.6%	81.2%	8.2%	0.0%		18.9%	72.7%	8.4%	0.0%		26.2%	58.8%	15.0%	0.0%		3.2%	72.0%	24.8%	0.0%			
Total %	1.7%	13.0%	1.3%	0.0%	16.1%	5.9%	22.8%	2.6%	0.0%	31.3%	6.3%	14.0%	3.6%	0.0%	23.9%	0.9%	20.7%	7.1%	0.0%	28.7%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-064 Anderson Road-8th Street.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Anderson Road Southbound					8th Street Westbound					Anderson Road Northbound					8th Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	4	27	3	0	34	7	10	2	0	19	2	13	1	0	16	2	6	1	0	9	78	0
07:15	5	28	2	0	35	15	7	8	0	30	3	21	2	0	26	1	5	2	0	8	99	0
07:30	5	72	3	0	80	16	10	4	0	30	2	25	8	0	35	2	11	5	0	18	163	0
07:45	2	73	6	0	81	21	25	6	0	52	0	22	10	0	32	0	17	3	0	20	185	0
<b>Total</b>	<b>16</b>	<b>200</b>	<b>14</b>	<b>0</b>	<b>230</b>	<b>59</b>	<b>52</b>	<b>20</b>	<b>0</b>	<b>131</b>	<b>7</b>	<b>81</b>	<b>21</b>	<b>0</b>	<b>109</b>	<b>5</b>	<b>39</b>	<b>11</b>	<b>0</b>	<b>55</b>	<b>525</b>	<b>0</b>
08:00	7	65	8	0	80	27	22	9	0	58	4	20	11	0	35	3	13	11	0	27	200	0
08:15	23	75	10	0	108	27	44	11	0	82	2	28	10	0	40	6	27	11	0	44	274	0
08:30	17	121	4	0	142	36	17	7	0	60	3	14	4	0	21	3	40	15	0	58	281	0
08:45	14	98	2	0	114	35	17	9	0	61	4	27	10	0	41	4	16	3	0	23	239	0
<b>Total</b>	<b>61</b>	<b>359</b>	<b>24</b>	<b>0</b>	<b>444</b>	<b>125</b>	<b>100</b>	<b>36</b>	<b>0</b>	<b>261</b>	<b>13</b>	<b>89</b>	<b>35</b>	<b>0</b>	<b>137</b>	<b>16</b>	<b>96</b>	<b>40</b>	<b>0</b>	<b>152</b>	<b>994</b>	<b>0</b>
16:00	10	55	4	0	69	18	11	18	0	47	4	63	17	0	84	4	15	2	0	21	221	0
16:15	14	58	4	0	76	9	14	8	0	31	7	56	19	0	82	3	23	4	0	30	219	0
16:30	7	60	2	0	69	5	15	16	0	36	4	59	9	0	72	4	18	2	0	24	201	0
16:45	7	57	3	0	67	25	11	19	0	55	13	64	15	0	92	7	25	5	0	37	251	0
<b>Total</b>	<b>38</b>	<b>230</b>	<b>13</b>	<b>0</b>	<b>281</b>	<b>57</b>	<b>51</b>	<b>61</b>	<b>0</b>	<b>169</b>	<b>28</b>	<b>242</b>	<b>60</b>	<b>0</b>	<b>330</b>	<b>18</b>	<b>81</b>	<b>13</b>	<b>0</b>	<b>112</b>	<b>892</b>	<b>0</b>
17:00	8	46	6	0	60	14	23	14	0	51	5	91	33	0	129	5	18	3	0	26	266	0
17:15	9	62	8	0	79	10	29	15	0	54	3	99	25	0	127	3	21	1	0	25	285	0
17:30	14	46	3	0	63	16	16	16	0	48	5	83	25	0	113	4	24	4	0	32	256	0
17:45	10	77	10	0	97	17	25	15	0	57	5	55	25	0	85	6	16	4	0	26	265	0
<b>Total</b>	<b>41</b>	<b>231</b>	<b>27</b>	<b>0</b>	<b>299</b>	<b>57</b>	<b>93</b>	<b>60</b>	<b>0</b>	<b>210</b>	<b>18</b>	<b>328</b>	<b>108</b>	<b>0</b>	<b>454</b>	<b>18</b>	<b>79</b>	<b>12</b>	<b>0</b>	<b>109</b>	<b>1072</b>	<b>0</b>
<b>Grand Total</b>	<b>156</b>	<b>1020</b>	<b>78</b>	<b>0</b>	<b>1254</b>	<b>298</b>	<b>296</b>	<b>177</b>	<b>0</b>	<b>771</b>	<b>66</b>	<b>740</b>	<b>224</b>	<b>0</b>	<b>1030</b>	<b>57</b>	<b>295</b>	<b>76</b>	<b>0</b>	<b>428</b>	<b>3483</b>	<b>0</b>
Apprch %	12.4%	81.3%	6.2%	0.0%		38.7%	38.4%	23.0%	0.0%		6.4%	71.8%	21.7%	0.0%		13.3%	68.9%	17.8%	0.0%			
Total %	4.5%	29.3%	2.2%	0.0%	36.0%	8.6%	8.5%	5.1%	0.0%	22.1%	1.9%	21.2%	6.4%	0.0%	29.6%	1.6%	8.5%	2.2%	0.0%	12.3%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-065 Pole Line Road-Loyola Drive.ppd

Date : 10/15/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Pole Line Road Southbound					Loyola Drive Westbound					Pole Line Road Northbound					Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	5	38	0	0	43	7	0	9	0	16	0	21	3	0	24	0	0	0	0	0	83	0
07:15	12	63	0	0	75	12	0	18	0	30	0	33	0	0	33	0	0	0	0	0	138	0
07:30	7	61	0	0	68	21	0	17	0	38	0	41	6	0	47	0	0	0	0	0	153	0
07:45	13	67	0	0	80	19	0	21	0	40	0	51	5	0	56	0	0	0	0	0	176	0
<b>Total</b>	<b>37</b>	<b>229</b>	<b>0</b>	<b>0</b>	<b>266</b>	<b>59</b>	<b>0</b>	<b>65</b>	<b>0</b>	<b>124</b>	<b>0</b>	<b>146</b>	<b>14</b>	<b>0</b>	<b>160</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>550</b>	<b>0</b>
08:00	14	94	0	0	108	12	0	17	0	29	0	57	6	0	63	0	0	0	0	0	200	0
08:15	20	88	0	0	108	21	0	27	0	48	0	71	10	0	81	0	0	0	0	0	237	0
08:30	12	116	0	0	128	30	0	21	0	51	0	75	10	0	85	0	0	0	0	0	264	0
08:45	20	91	0	0	111	22	0	22	0	44	0	51	4	0	55	0	0	0	0	0	210	0
<b>Total</b>	<b>66</b>	<b>389</b>	<b>0</b>	<b>0</b>	<b>455</b>	<b>85</b>	<b>0</b>	<b>87</b>	<b>0</b>	<b>172</b>	<b>0</b>	<b>254</b>	<b>30</b>	<b>0</b>	<b>284</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>911</b>	<b>0</b>
16:00	14	67	0	0	81	16	0	25	0	41	0	87	12	0	99	0	0	0	0	0	221	0
16:15	12	71	0	0	83	9	0	12	0	21	0	85	18	0	103	0	0	0	0	0	207	0
16:30	14	79	0	0	93	9	0	17	0	26	0	94	15	0	109	0	0	0	0	0	228	0
16:45	24	89	0	0	113	10	0	29	0	39	0	107	17	0	124	0	0	0	0	0	276	0
<b>Total</b>	<b>64</b>	<b>306</b>	<b>0</b>	<b>0</b>	<b>370</b>	<b>44</b>	<b>0</b>	<b>83</b>	<b>0</b>	<b>127</b>	<b>0</b>	<b>373</b>	<b>62</b>	<b>0</b>	<b>435</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>932</b>	<b>0</b>
17:00	22	103	0	0	125	14	0	19	0	33	0	132	19	0	151	0	0	0	0	0	309	0
17:15	41	72	0	0	113	12	0	25	0	37	0	90	23	0	113	0	0	0	0	0	263	0
17:30	27	88	0	0	115	16	0	24	0	40	0	94	13	0	107	0	0	0	0	0	262	0
17:45	23	83	0	0	106	13	0	22	0	35	0	89	13	0	102	0	0	0	0	0	243	0
<b>Total</b>	<b>113</b>	<b>346</b>	<b>0</b>	<b>0</b>	<b>459</b>	<b>55</b>	<b>0</b>	<b>90</b>	<b>0</b>	<b>145</b>	<b>0</b>	<b>405</b>	<b>68</b>	<b>0</b>	<b>473</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1077</b>	<b>0</b>
<b>Grand Total</b>	<b>280</b>	<b>1270</b>	<b>0</b>	<b>0</b>	<b>1550</b>	<b>243</b>	<b>0</b>	<b>325</b>	<b>0</b>	<b>568</b>	<b>0</b>	<b>1178</b>	<b>174</b>	<b>0</b>	<b>1352</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3470</b>	<b>0</b>
Apprch %	18.1%	81.9%	0.0%	0.0%		42.8%	0.0%	57.2%	0.0%		0.0%	87.1%	12.9%	0.0%		0.0%	0.0%	0.0%	0.0%			
Total %	8.1%	36.6%	0.0%	0.0%	44.7%	7.0%	0.0%	9.4%	0.0%	16.4%	0.0%	33.9%	5.0%	0.0%	39.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-066 L Street-Drexel Drive.ppd  
 Date : 10/15/2014

## Unshifted Count = All Vehicles

START TIME	L Street Southbound					Drexel Drive Westbound					L Street Northbound					Drexel Drive Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	1	11	1	0	13	2	0	1	0	3	1	5	0	0	6	1	1	2	0	4	26	0
07:15	2	14	2	0	18	3	1	0	0	4	2	7	1	0	10	3	0	4	0	7	39	0
07:30	0	25	4	1	30	8	1	2	0	11	6	6	0	0	12	2	0	1	0	3	56	1
07:45	1	30	5	0	36	3	5	1	0	9	3	23	1	0	27	1	0	5	0	6	78	0
Total	4	80	12	1	97	16	7	4	0	27	12	41	2	0	55	7	1	12	0	20	199	1
08:00	1	17	6	0	24	8	2	2	0	12	1	14	0	0	15	6	2	2	0	10	61	0
08:15	0	25	9	0	34	6	2	0	0	8	2	23	1	0	26	3	1	3	0	7	75	0
08:30	1	36	6	0	43	4	2	0	0	6	1	14	1	0	16	1	2	3	0	6	71	0
08:45	1	33	10	0	44	4	4	2	0	10	6	16	3	0	25	6	0	6	0	12	91	0
Total	3	111	31	0	145	22	10	4	0	36	10	67	5	0	82	16	5	14	0	35	298	0
16:00	1	17	2	0	20	7	4	1	0	12	7	33	9	0	49	3	1	2	0	6	87	0
16:15	4	19	2	0	25	1	5	1	0	7	9	31	4	0	44	4	1	6	0	11	87	0
16:30	2	19	14	0	35	0	5	2	0	7	13	36	2	0	51	4	1	5	0	10	103	0
16:45	3	35	15	0	53	4	8	2	0	14	14	31	3	0	48	18	4	8	0	30	145	0
Total	10	90	33	0	133	12	22	6	0	40	43	131	18	0	192	29	7	21	0	57	422	0
17:00	1	20	9	0	30	4	8	2	0	14	11	45	5	0	61	12	5	11	0	28	133	0
17:15	4	26	8	0	38	3	2	2	0	7	9	42	3	0	54	5	3	1	0	9	108	0
17:30	1	28	11	0	40	3	7	3	0	13	9	26	7	1	43	3	2	6	0	11	107	1
17:45	4	19	5	0	28	3	1	1	0	5	7	41	4	0	52	3	1	3	0	7	92	0
Total	10	93	33	0	136	13	18	8	0	39	36	154	19	1	210	23	11	21	0	55	440	1
Grand Total	27	374	109	1	511	63	57	22	0	142	101	393	44	1	539	75	24	68	0	167	1359	2
Apprch %	5.3%	73.2%	21.3%	0.2%		44.4%	40.1%	15.5%	0.0%		18.7%	72.9%	8.2%	0.2%		44.9%	14.4%	40.7%	0.0%			
Total %	2.0%	27.5%	8.0%	0.1%	37.6%	4.6%	4.2%	1.6%	0.0%	10.4%	7.4%	28.9%	3.2%	0.1%	39.7%	5.5%	1.8%	5.0%	0.0%	12.3%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-068 F Street-E. 14th Street.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	F Street Southbound					Westbound					F Street Northbound					E. 14th Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	21	15	0	36	0	0	0	0	0	0	21	0	0	21	4	0	0	0	4	61	0
07:15	0	17	73	0	90	0	0	0	0	0	15	12	0	0	27	16	0	11	0	27	144	0
07:30	0	53	106	0	159	0	0	0	0	0	13	18	0	0	31	27	0	28	0	55	245	0
07:45	0	57	28	0	85	0	0	0	0	0	6	24	0	0	30	31	0	14	0	45	160	0
<b>Total</b>	0	148	222	0	370	0	0	0	0	0	34	75	0	0	109	78	0	53	0	131	610	0
08:00	0	56	73	0	129	0	0	0	0	0	21	22	0	0	43	30	0	8	0	38	210	0
08:15	0	70	125	0	195	0	0	0	0	0	36	20	0	0	56	30	0	31	0	61	312	0
08:30	0	67	42	0	109	0	0	0	0	0	13	31	0	0	44	48	0	32	0	80	233	0
08:45	0	63	28	0	91	0	0	0	0	0	7	33	0	0	40	24	0	20	0	44	175	0
<b>Total</b>	0	256	268	0	524	0	0	0	0	0	77	106	0	0	183	132	0	91	0	223	930	0
16:00	0	54	21	0	75	0	0	0	0	0	17	63	0	0	80	37	0	22	0	59	214	0
16:15	0	57	32	0	89	0	0	0	0	0	23	71	0	0	94	38	0	21	0	59	242	0
16:30	0	67	36	0	103	0	0	0	0	0	20	83	0	0	103	31	0	19	0	50	256	0
16:45	0	76	42	0	118	0	0	0	0	0	14	76	0	0	90	29	0	9	0	38	246	0
<b>Total</b>	0	254	131	0	385	0	0	0	0	0	74	293	0	0	367	135	0	71	0	206	958	0
17:00	0	59	24	0	83	0	0	0	0	0	17	92	0	0	109	39	0	27	0	66	258	0
17:15	0	84	31	0	115	0	0	0	0	0	18	88	0	0	106	42	0	25	0	67	288	0
17:30	0	73	25	0	98	0	0	0	0	0	25	63	0	0	88	32	0	19	0	51	237	0
17:45	0	49	26	0	75	0	0	0	0	0	18	81	0	0	99	41	0	22	0	63	237	0
<b>Total</b>	0	265	106	0	371	0	0	0	0	0	78	324	0	0	402	154	0	93	0	247	1020	0
<b>Grand Total</b>	0	923	727	0	1650	0	0	0	0	0	263	798	0	0	1061	499	0	308	0	807	3518	0
Apprch %	0.0%	55.9%	44.1%	0.0%		0.0%	0.0%	0.0%	0.0%		24.8%	75.2%	0.0%	0.0%		61.8%	0.0%	38.2%	0.0%			
Total %	0.0%	26.2%	20.7%	0.0%	46.9%	0.0%	0.0%	0.0%	0.0%	0.0%	7.5%	22.7%	0.0%	0.0%	30.2%	14.2%	0.0%	8.8%	0.0%	22.9%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-071 Anderson Road-Villanova Drive.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Anderson Road Southbound					Villanova Drive Westbound					Anderson Road Northbound					Villanova Drive Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	4	31	1	0	36	2	1	4	0	7	0	14	1	0	15	1	0	1	0	2	60	0
07:15	20	36	1	0	57	0	2	8	0	10	1	22	5	0	28	1	12	2	0	15	110	0
07:30	70	64	2	0	136	11	7	9	0	27	1	26	7	0	34	1	22	3	0	26	223	0
07:45	12	77	2	0	91	3	8	12	0	23	0	22	2	0	24	4	6	3	0	13	151	0
<b>Total</b>	<b>106</b>	<b>208</b>	<b>6</b>	<b>0</b>	<b>320</b>	<b>16</b>	<b>18</b>	<b>33</b>	<b>0</b>	<b>67</b>	<b>2</b>	<b>84</b>	<b>15</b>	<b>0</b>	<b>101</b>	<b>7</b>	<b>40</b>	<b>9</b>	<b>0</b>	<b>56</b>	<b>544</b>	<b>0</b>
08:00	22	90	10	0	122	6	4	8	0	18	0	18	4	0	22	4	6	9	0	19	181	0
08:15	27	99	10	0	136	5	18	15	0	38	3	40	3	0	46	12	16	18	0	46	266	0
08:30	11	111	4	0	126	8	11	13	0	32	1	27	3	0	31	7	10	3	0	20	209	0
08:45	9	99	2	0	110	4	6	8	0	18	0	38	2	1	41	4	6	3	0	13	182	1
<b>Total</b>	<b>69</b>	<b>399</b>	<b>26</b>	<b>0</b>	<b>494</b>	<b>23</b>	<b>39</b>	<b>44</b>	<b>0</b>	<b>106</b>	<b>4</b>	<b>123</b>	<b>12</b>	<b>1</b>	<b>140</b>	<b>27</b>	<b>38</b>	<b>33</b>	<b>0</b>	<b>98</b>	<b>838</b>	<b>1</b>
16:00	9	58	6	0	73	4	13	9	0	26	5	75	5	0	85	5	11	3	0	19	203	0
16:15	8	59	0	0	67	1	5	7	0	13	5	55	7	0	67	2	7	4	0	13	160	0
16:30	8	61	2	0	71	3	7	10	0	20	8	70	3	0	81	4	12	5	0	21	193	0
16:45	4	59	0	0	63	11	9	10	0	30	4	80	2	0	86	1	14	3	0	18	197	0
<b>Total</b>	<b>29</b>	<b>237</b>	<b>8</b>	<b>0</b>	<b>274</b>	<b>19</b>	<b>34</b>	<b>36</b>	<b>0</b>	<b>89</b>	<b>22</b>	<b>280</b>	<b>17</b>	<b>0</b>	<b>319</b>	<b>12</b>	<b>44</b>	<b>15</b>	<b>0</b>	<b>71</b>	<b>753</b>	<b>0</b>
17:00	9	51	6	0	66	5	11	10	0	26	1	102	1	0	104	2	5	3	0	10	206	0
17:15	7	76	3	0	86	5	13	10	0	28	3	107	3	0	113	6	4	1	0	11	238	0
17:30	15	65	3	0	83	0	5	18	0	23	3	82	8	0	93	3	6	3	0	12	211	0
17:45	10	84	1	0	95	2	14	7	0	23	4	78	3	0	85	3	8	4	0	15	218	0
<b>Total</b>	<b>41</b>	<b>276</b>	<b>13</b>	<b>0</b>	<b>330</b>	<b>12</b>	<b>43</b>	<b>45</b>	<b>0</b>	<b>100</b>	<b>11</b>	<b>369</b>	<b>15</b>	<b>0</b>	<b>395</b>	<b>14</b>	<b>23</b>	<b>11</b>	<b>0</b>	<b>48</b>	<b>873</b>	<b>0</b>
<b>Grand Total</b>	<b>245</b>	<b>1120</b>	<b>53</b>	<b>0</b>	<b>1418</b>	<b>70</b>	<b>134</b>	<b>158</b>	<b>0</b>	<b>362</b>	<b>39</b>	<b>856</b>	<b>59</b>	<b>1</b>	<b>955</b>	<b>60</b>	<b>145</b>	<b>68</b>	<b>0</b>	<b>273</b>	<b>3008</b>	<b>1</b>
Apprch %	17.3%	79.0%	3.7%	0.0%		19.3%	37.0%	43.6%	0.0%		4.1%	89.6%	6.2%	0.1%		22.0%	53.1%	24.9%	0.0%			
Total %	8.1%	37.2%	1.8%	0.0%	47.1%	2.3%	4.5%	5.3%	0.0%	12.0%	1.3%	28.5%	2.0%	0.0%	31.7%	2.0%	4.8%	2.3%	0.0%	9.1%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-075 Pole Line Road-Claumont Drive.ppd

Date : 10/15/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Pole Line Road Southbound					Westbound					Pole Line Road Northbound					Claremont Drive Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	34	4	0	38	0	0	0	0	0	0	37	0	0	37	4	0	1	0	5	80	0
07:15	0	71	1	0	72	0	0	0	0	0	0	56	0	0	56	6	0	4	0	10	138	0
07:30	0	68	3	0	71	0	0	0	0	0	2	54	0	0	56	5	0	3	0	8	135	0
07:45	0	85	4	0	89	0	0	0	0	0	4	74	0	0	78	3	0	3	0	6	173	0
Total	0	258	12	0	270	0	0	0	0	0	6	221	0	0	227	18	0	11	0	29	526	0
08:00	0	118	1	0	119	0	0	0	0	0	6	60	0	0	66	5	0	7	0	12	197	0
08:15	0	133	6	0	139	0	0	0	0	0	4	65	0	0	69	2	0	14	0	16	224	0
08:30	0	97	5	0	102	0	0	0	0	0	6	102	0	0	108	5	0	5	0	10	220	0
08:45	0	109	9	0	118	0	0	0	0	0	7	81	0	0	88	3	0	7	0	10	216	0
Total	0	457	21	0	478	0	0	0	0	0	23	308	0	0	331	15	0	33	0	48	857	0
16:00	0	82	6	0	88	0	0	0	0	0	1	105	0	0	106	3	0	4	0	7	201	0
16:15	0	78	7	0	85	0	0	0	0	0	3	103	0	0	106	3	0	6	0	9	200	0
16:30	0	94	5	0	99	0	0	0	0	0	2	103	0	0	105	4	0	4	0	8	212	0
16:45	0	109	9	0	118	0	0	0	0	0	4	125	0	0	129	7	0	6	0	13	260	0
Total	0	363	27	0	390	0	0	0	0	0	10	436	0	0	446	17	0	20	0	37	873	0
17:00	0	124	21	0	145	0	0	0	0	0	4	136	0	0	140	5	0	4	0	9	294	0
17:15	0	123	9	0	132	0	0	0	0	0	7	116	0	0	123	4	0	8	0	12	267	0
17:30	0	95	14	0	109	0	0	0	0	0	2	112	0	0	114	7	0	9	0	16	239	0
17:45	0	112	4	0	116	0	0	0	0	0	6	102	0	0	108	6	0	9	0	15	239	0
Total	0	454	48	0	502	0	0	0	0	0	19	466	0	0	485	22	0	30	0	52	1039	0
Grand Total	0	1532	108	0	1640	0	0	0	0	0	58	1431	0	0	1489	72	0	94	0	166	3295	0
Apprch %	0.0%	93.4%	6.6%	0.0%		0.0%	0.0%	0.0%	0.0%		3.9%	96.1%	0.0%	0.0%		43.4%	0.0%	56.6%	0.0%			
Total %	0.0%	46.5%	3.3%	0.0%	49.8%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	43.4%	0.0%	0.0%	45.2%	2.2%	0.0%	2.9%	0.0%	5.0%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-076 F Street-1st Street.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	F Street Southbound					1st Street Westbound					F Street Northbound					1st Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	1	6	0	7	0	11	0	0	11	0	0	0	0	0	22	20	0	0	42	60	0
07:15	0	0	24	0	24	1	17	0	0	18	0	0	0	0	0	22	16	0	0	38	80	0
07:30	1	0	18	0	19	0	12	0	0	12	0	0	0	0	0	20	18	1	0	39	70	0
07:45	0	0	18	0	18	2	17	1	0	20	1	1	0	0	2	35	30	1	0	66	106	0
<b>Total</b>	<b>1</b>	<b>1</b>	<b>66</b>	<b>0</b>	<b>68</b>	<b>3</b>	<b>57</b>	<b>1</b>	<b>0</b>	<b>61</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>99</b>	<b>84</b>	<b>2</b>	<b>0</b>	<b>185</b>	<b>316</b>	<b>0</b>
08:00	0	0	18	0	18	0	12	1	0	13	0	0	0	0	0	29	36	1	0	66	97	0
08:15	0	3	18	0	21	0	14	2	0	16	1	0	0	0	1	26	35	3	0	64	102	0
08:30	3	1	18	0	22	1	14	0	0	15	0	1	1	0	2	32	37	2	0	71	110	0
08:45	0	2	17	0	19	0	11	2	0	13	0	1	0	0	1	35	29	8	0	72	105	0
<b>Total</b>	<b>3</b>	<b>6</b>	<b>71</b>	<b>0</b>	<b>80</b>	<b>1</b>	<b>51</b>	<b>5</b>	<b>0</b>	<b>57</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>122</b>	<b>137</b>	<b>14</b>	<b>0</b>	<b>273</b>	<b>414</b>	<b>0</b>
16:00	1	0	37	0	38	0	33	2	0	35	3	1	0	0	4	26	39	2	0	67	144	0
16:15	1	0	37	0	38	1	25	1	0	27	1	5	0	0	6	36	49	1	0	86	157	0
16:30	3	0	24	0	27	1	27	2	0	30	0	3	1	0	4	38	36	4	0	78	139	0
16:45	4	1	38	0	43	4	27	4	0	35	1	1	0	0	2	37	63	3	0	103	183	0
<b>Total</b>	<b>9</b>	<b>1</b>	<b>136</b>	<b>0</b>	<b>146</b>	<b>6</b>	<b>112</b>	<b>9</b>	<b>0</b>	<b>127</b>	<b>5</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>16</b>	<b>137</b>	<b>187</b>	<b>10</b>	<b>0</b>	<b>334</b>	<b>623</b>	<b>0</b>
17:00	2	2	34	0	38	0	36	4	0	40	2	1	2	0	5	44	51	3	0	98	181	0
17:15	4	2	24	0	30	1	15	1	0	17	3	1	0	0	4	48	51	2	0	101	152	0
17:30	4	4	52	0	60	4	13	8	0	25	2	6	4	0	12	40	45	7	0	92	189	0
17:45	8	3	45	0	56	1	29	6	0	36	3	4	4	0	11	24	58	5	0	87	190	0
<b>Total</b>	<b>18</b>	<b>11</b>	<b>155</b>	<b>0</b>	<b>184</b>	<b>6</b>	<b>93</b>	<b>19</b>	<b>0</b>	<b>118</b>	<b>10</b>	<b>12</b>	<b>10</b>	<b>0</b>	<b>32</b>	<b>156</b>	<b>205</b>	<b>17</b>	<b>0</b>	<b>378</b>	<b>712</b>	<b>0</b>
<b>Grand Total</b>	<b>31</b>	<b>19</b>	<b>428</b>	<b>0</b>	<b>478</b>	<b>16</b>	<b>313</b>	<b>34</b>	<b>0</b>	<b>363</b>	<b>17</b>	<b>25</b>	<b>12</b>	<b>0</b>	<b>54</b>	<b>514</b>	<b>613</b>	<b>43</b>	<b>0</b>	<b>1170</b>	<b>2065</b>	<b>0</b>
Apprch %	6.5%	4.0%	89.5%	0.0%		4.4%	86.2%	9.4%	0.0%		31.5%	46.3%	22.2%	0.0%		43.9%	52.4%	3.7%	0.0%			
Total %	1.5%	0.9%	20.7%	0.0%	23.1%	0.8%	15.2%	1.6%	0.0%	17.6%	0.8%	1.2%	0.6%	0.0%	2.6%	24.9%	29.7%	2.1%	0.0%	56.7%	100.0%	



# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-077 E Street-1st Street.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	E Street Southbound					1st Street Westbound					Richards Boulevard Northbound					1st Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	1	18	0	0	19	17	1	0	0	18	54	11	43	0	108	0	0	37	0	37	182	0
07:15	0	19	0	0	19	38	1	0	0	39	100	15	36	0	151	2	1	31	0	34	243	0
07:30	1	13	0	0	14	25	3	0	0	28	125	21	36	0	182	1	3	52	0	56	280	0
07:45	0	23	3	0	26	33	3	0	0	36	127	17	65	0	209	0	1	53	0	54	325	0
<b>Total</b>	<b>2</b>	<b>73</b>	<b>3</b>	<b>0</b>	<b>78</b>	<b>113</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>121</b>	<b>406</b>	<b>64</b>	<b>180</b>	<b>0</b>	<b>650</b>	<b>3</b>	<b>5</b>	<b>173</b>	<b>0</b>	<b>181</b>	<b>1030</b>	<b>0</b>
08:00	0	23	2	0	25	28	2	0	0	30	121	18	64	0	203	0	2	55	0	57	315	0
08:15	0	24	3	0	27	27	3	1	0	31	119	27	66	0	212	1	4	81	0	86	356	0
08:30	0	21	4	0	25	24	7	2	0	33	110	26	65	0	201	1	3	68	0	72	331	0
08:45	0	20	2	0	22	27	4	0	0	31	114	20	67	0	201	1	4	46	0	51	305	0
<b>Total</b>	<b>0</b>	<b>88</b>	<b>11</b>	<b>0</b>	<b>99</b>	<b>106</b>	<b>16</b>	<b>3</b>	<b>0</b>	<b>125</b>	<b>464</b>	<b>91</b>	<b>262</b>	<b>0</b>	<b>817</b>	<b>3</b>	<b>13</b>	<b>250</b>	<b>0</b>	<b>266</b>	<b>1307</b>	<b>0</b>
16:00	3	39	10	0	52	54	10	4	0	68	82	35	51	0	168	4	10	106	0	120	408	0
16:15	2	32	5	0	39	53	11	5	0	69	91	31	77	0	199	2	10	119	0	131	438	0
16:30	2	33	7	0	42	42	8	0	0	50	106	30	74	0	210	4	6	136	0	146	448	0
16:45	1	43	7	0	51	54	13	0	0	67	92	27	94	0	213	6	7	106	0	119	450	0
<b>Total</b>	<b>8</b>	<b>147</b>	<b>29</b>	<b>0</b>	<b>184</b>	<b>203</b>	<b>42</b>	<b>9</b>	<b>0</b>	<b>254</b>	<b>371</b>	<b>123</b>	<b>296</b>	<b>0</b>	<b>790</b>	<b>16</b>	<b>33</b>	<b>467</b>	<b>0</b>	<b>516</b>	<b>1744</b>	<b>0</b>
17:00	1	41	12	0	54	54	8	4	0	66	103	37	90	0	230	0	8	139	0	147	497	0
17:15	2	45	5	0	52	41	9	1	0	51	88	27	89	0	204	5	10	114	0	129	436	0
17:30	4	41	6	0	51	50	10	3	0	63	99	37	67	0	203	1	19	109	0	129	446	0
17:45	2	36	10	0	48	57	12	8	0	77	99	29	70	0	198	2	13	83	0	98	421	0
<b>Total</b>	<b>9</b>	<b>163</b>	<b>33</b>	<b>0</b>	<b>205</b>	<b>202</b>	<b>39</b>	<b>16</b>	<b>0</b>	<b>257</b>	<b>389</b>	<b>130</b>	<b>316</b>	<b>0</b>	<b>835</b>	<b>8</b>	<b>50</b>	<b>445</b>	<b>0</b>	<b>503</b>	<b>1800</b>	<b>0</b>
<b>Grand Total</b>	<b>19</b>	<b>471</b>	<b>76</b>	<b>0</b>	<b>566</b>	<b>624</b>	<b>105</b>	<b>28</b>	<b>0</b>	<b>757</b>	<b>1630</b>	<b>408</b>	<b>1054</b>	<b>0</b>	<b>3092</b>	<b>30</b>	<b>101</b>	<b>1335</b>	<b>0</b>	<b>1466</b>	<b>5881</b>	<b>0</b>
Apprch %	3.4%	83.2%	13.4%	0.0%		82.4%	13.9%	3.7%	0.0%		52.7%	13.2%	34.1%	0.0%		2.0%	6.9%	91.1%	0.0%			
Total %	0.3%	8.0%	1.3%	0.0%	9.6%	10.6%	1.8%	0.5%	0.0%	12.9%	27.7%	6.9%	17.9%	0.0%	52.6%	0.5%	1.7%	22.7%	0.0%	24.9%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-078 D Street-1st Street.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	D Street Southbound					1st Street Westbound					D Street Northbound					1st Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	5	0	1	0	6	3	43	5	0	51	0	0	1	0	1	0	31	0	0	31	89	0
07:15	2	2	2	0	6	5	91	4	0	100	1	2	2	0	5	0	30	0	0	30	141	0
07:30	4	0	1	0	5	3	118	3	0	124	2	0	2	0	4	0	51	0	0	51	184	0
07:45	3	2	3	0	8	6	115	10	0	131	1	0	4	0	5	0	44	3	0	47	191	0
Total	14	4	7	0	25	17	367	22	0	406	4	2	9	0	15	0	156	3	0	159	605	0
08:00	6	3	3	0	12	6	98	15	0	119	1	1	4	0	6	1	48	0	0	49	186	0
08:15	10	1	3	0	14	6	105	16	0	127	2	1	2	0	5	0	80	6	0	86	232	0
08:30	9	8	3	0	20	4	107	12	0	123	1	0	6	0	7	1	54	8	0	63	213	0
08:45	3	3	6	0	12	8	98	16	0	122	3	5	5	0	13	2	45	7	0	54	201	0
Total	28	15	15	0	58	24	408	59	0	491	7	7	17	0	31	4	227	21	0	252	832	0
16:00	19	13	4	0	36	17	71	18	0	106	10	8	12	0	30	4	84	6	0	94	266	0
16:15	14	7	1	0	22	19	78	10	0	107	11	7	22	0	40	3	98	16	0	117	286	0
16:30	26	8	4	0	38	10	94	15	0	119	7	8	16	0	31	3	105	14	0	122	310	0
16:45	19	9	6	0	34	17	69	19	0	105	5	11	18	0	34	0	90	15	0	105	278	0
Total	78	37	15	0	130	63	312	62	0	437	33	34	68	0	135	10	377	51	0	438	1140	0
17:00	20	11	5	0	36	29	77	16	0	122	14	10	21	0	45	1	92	18	0	111	314	0
17:15	27	8	4	0	39	18	61	20	0	99	7	12	14	0	33	4	91	14	0	109	280	0
17:30	13	6	1	0	20	20	76	10	0	106	11	15	23	0	49	5	85	21	0	111	286	0
17:45	18	6	3	0	27	18	90	15	0	123	10	6	11	0	27	9	76	11	0	96	273	0
Total	78	31	13	0	122	85	304	61	0	450	42	43	69	0	154	19	344	64	0	427	1153	0
Grand Total	198	87	50	0	335	189	1391	204	0	1784	86	86	163	0	335	33	1104	139	0	1276	3730	0
Apprch %	59.1%	26.0%	14.9%	0.0%		10.6%	78.0%	11.4%	0.0%		25.7%	25.7%	48.7%	0.0%		2.6%	86.5%	10.9%	0.0%			
Total %	5.3%	2.3%	1.3%	0.0%	9.0%	5.1%	37.3%	5.5%	0.0%	47.8%	2.3%	2.3%	4.4%	0.0%	9.0%	0.9%	29.6%	3.7%	0.0%	34.2%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-079 B Street-1st Street.ppd

Date : 10/16/2014

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	B Street Southbound					1st Street Westbound					Bike Path Northbound					1st Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	25	0	11	0	36	0	23	20	0	43	0	0	0	0	0	5	4	0	0	9	88	0
07:15	22	0	15	0	37	0	27	55	0	82	0	0	0	0	0	2	8	0	0	10	129	0
07:30	40	0	22	0	62	0	38	79	0	117	0	0	0	0	0	7	14	0	0	21	200	0
07:45	31	0	36	0	67	0	67	55	0	122	0	0	0	0	0	9	10	0	0	19	208	0
Total	118	0	84	0	202	0	155	209	0	364	0	0	0	0	0	23	36	0	0	59	625	0
08:00	36	0	38	0	74	0	41	56	0	97	0	0	0	0	0	12	16	0	0	28	199	0
08:15	66	0	30	0	96	0	51	60	0	111	0	0	0	0	0	7	18	0	0	25	232	0
08:30	44	0	54	0	98	0	70	40	0	110	0	0	0	0	0	13	13	0	0	26	234	0
08:45	27	0	75	0	102	0	58	45	0	103	0	0	0	0	0	17	28	0	0	45	250	0
Total	173	0	197	0	370	0	220	201	0	421	0	0	0	0	0	49	75	0	0	124	915	0
16:00	61	0	23	0	84	0	28	53	0	81	0	0	0	0	0	20	43	0	0	63	228	0
16:15	81	0	27	0	108	0	25	58	0	83	0	0	0	0	0	38	45	0	0	83	274	0
16:30	59	0	34	0	93	0	45	57	0	102	0	0	0	0	0	38	52	0	0	90	285	0
16:45	76	0	31	0	107	0	32	49	0	81	0	0	0	0	0	37	39	0	0	76	264	0
Total	277	0	115	0	392	0	130	217	0	347	0	0	0	0	0	133	179	0	0	312	1051	0
17:00	65	0	32	0	97	0	37	56	0	93	0	0	0	0	0	38	59	0	0	97	287	0
17:15	56	0	36	0	92	0	22	53	0	75	0	0	0	0	0	50	61	0	0	111	278	0
17:30	48	0	29	0	77	0	35	44	0	79	0	0	0	0	0	27	58	0	0	85	241	0
17:45	45	0	35	0	80	0	42	65	0	107	0	0	0	0	0	28	57	0	0	85	272	0
Total	214	0	132	0	346	0	136	218	0	354	0	0	0	0	0	143	235	0	0	378	1078	0
Grand Total	782	0	528	0	1310	0	641	845	0	1486	0	0	0	0	0	348	525	0	0	873	3669	0
Apprch %	59.7%	0.0%	40.3%	0.0%		0.0%	43.1%	56.9%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	39.9%	60.1%	0.0%	0.0%			
Total %	21.3%	0.0%	14.4%	0.0%	35.7%	0.0%	17.5%	23.0%	0.0%	40.5%	0.0%	0.0%	0.0%	0.0%	0.0%	9.5%	14.3%	0.0%	0.0%	23.8%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-080 A Street-1st Street.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	A Street Southbound					1st Street Westbound					Old Davis Road Northbound					1st Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	19	3	7	0	29	4	2	10	0	16	0	0	1	0	1	46	0
07:15	0	0	0	0	0	27	0	7	0	34	1	7	8	0	16	0	1	0	0	1	51	0
07:30	0	0	0	0	0	40	0	8	0	48	2	10	19	0	31	1	0	0	0	1	80	0
07:45	0	0	0	0	0	62	2	11	1	76	1	0	18	0	19	1	0	1	0	2	97	1
<b>Total</b>	0	0	0	0	0	148	5	33	1	187	8	19	55	0	82	2	1	2	0	5	274	1
08:00	0	0	0	0	0	47	2	13	0	62	0	4	23	0	27	2	2	1	0	5	94	0
08:15	0	0	0	0	0	42	3	9	0	54	0	12	23	0	35	1	0	1	0	2	91	0
08:30	0	0	0	0	0	89	2	9	0	100	1	9	22	0	32	0	0	2	0	2	134	0
08:45	0	0	0	0	0	90	1	10	0	101	0	9	30	0	39	0	2	1	0	3	143	0
<b>Total</b>	0	0	0	0	0	268	8	41	0	317	1	34	98	0	133	3	4	5	0	12	462	0
16:00	0	0	0	0	0	37	0	10	0	47	0	13	50	0	63	1	1	1	0	3	113	0
16:15	0	0	0	0	0	37	0	14	0	51	0	13	72	0	85	0	0	1	0	1	137	0
16:30	0	0	0	0	0	44	1	27	0	72	0	17	70	0	87	0	1	0	0	1	160	0
16:45	0	0	0	0	0	46	0	10	0	56	0	13	65	0	78	0	0	0	0	0	134	0
<b>Total</b>	0	0	0	0	0	164	1	61	0	226	0	56	257	0	313	1	2	2	0	5	544	0
17:00	0	0	0	0	0	45	0	21	0	66	0	10	88	0	98	0	0	1	0	1	165	0
17:15	0	0	0	0	0	45	0	16	0	61	2	15	86	0	103	0	1	0	0	1	165	0
17:30	0	0	0	0	0	44	0	15	0	59	0	8	78	0	86	0	0	0	0	0	145	0
17:45	0	0	0	0	0	51	0	17	0	68	0	15	72	0	87	0	0	0	0	0	155	0
<b>Total</b>	0	0	0	0	0	185	0	69	0	254	2	48	324	0	374	0	1	1	0	2	630	0
<b>Grand Total</b>	0	0	0	0	0	765	14	204	1	984	11	157	734	0	902	6	8	10	0	24	1910	1
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	77.7%	1.4%	20.7%	0.1%	51.5%	1.2%	17.4%	81.4%	0.0%	47.2%	25.0%	33.3%	41.7%	0.0%	1.3%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	40.1%	0.7%	10.7%	0.1%	51.5%	0.6%	8.2%	38.4%	0.0%	47.2%	0.3%	0.4%	0.5%	0.0%	1.3%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-081 F Street-2nd Street.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	F Street Southbound					2nd Street Westbound					F Street Northbound					2nd Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	3	9	4	0	16	0	8	2	0	10	1	20	2	0	23	2	6	0	0	8	57	0
07:15	2	25	5	0	32	1	8	2	0	11	0	12	5	0	17	5	1	0	0	6	66	0
07:30	8	19	6	0	33	1	3	3	0	7	2	17	3	0	22	3	6	1	0	10	72	0
07:45	8	15	4	0	27	2	10	2	0	14	1	24	0	0	25	2	1	4	1	8	74	1
Total	21	68	19	0	108	4	29	9	0	42	4	73	10	0	87	12	14	5	1	32	269	1
08:00	3	18	8	0	29	0	4	3	0	7	7	15	3	0	25	3	6	2	0	11	72	0
08:15	5	24	10	0	39	0	5	3	0	8	2	22	1	0	25	3	4	4	0	11	83	0
08:30	7	22	3	0	32	4	13	8	0	25	1	23	2	0	26	5	5	1	0	11	94	0
08:45	4	22	7	0	33	2	5	6	0	13	3	20	4	0	27	9	7	2	0	18	91	0
Total	19	86	28	0	133	6	27	20	0	53	13	80	10	0	103	20	22	9	0	51	340	0
16:00	6	31	16	0	53	4	8	8	0	20	3	28	4	0	35	6	25	7	0	38	146	0
16:15	8	26	14	1	49	6	19	6	0	31	3	34	4	0	41	11	18	6	0	35	156	1
16:30	4	25	8	0	37	3	9	7	0	19	3	28	5	0	36	9	21	6	0	36	128	0
16:45	11	28	14	0	53	4	8	5	0	17	4	32	9	0	45	14	18	7	0	39	154	0
Total	29	110	52	1	192	17	44	26	0	87	13	122	22	0	157	40	82	26	0	148	584	1
17:00	7	28	14	0	49	2	19	11	0	32	3	40	13	0	56	9	23	3	0	35	172	0
17:15	7	25	17	0	49	6	9	8	0	23	6	39	5	0	50	8	22	6	0	36	158	0
17:30	8	40	10	0	58	6	14	11	0	31	6	31	15	0	52	9	18	10	0	37	178	0
17:45	8	39	11	0	58	7	15	12	0	34	5	28	8	0	41	9	20	12	0	41	174	0
Total	30	132	52	0	214	21	57	42	0	120	20	138	41	0	199	35	83	31	0	149	682	0
Grand Total	99	396	151	1	647	48	157	97	0	302	50	413	83	0	546	107	201	71	1	380	1875	2
Apprch %	15.3%	61.2%	23.3%	0.2%		15.9%	52.0%	32.1%	0.0%		9.2%	75.6%	15.2%	0.0%		28.2%	52.9%	18.7%	0.3%			
Total %	5.3%	21.1%	8.1%	0.1%	34.5%	2.6%	8.4%	5.2%	0.0%	16.1%	2.7%	22.0%	4.4%	0.0%	29.1%	5.7%	10.7%	3.8%	0.1%	20.3%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-082 B Street-2nd Street.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	B Street Southbound					2nd Street Westbound					B Street Northbound					2nd Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	4	34	1	0	39	0	1	3	0	4	0	23	3	0	26	0	0	2	0	2	71	0
07:15	2	42	0	0	44	2	0	5	0	7	2	55	1	0	58	1	0	1	0	2	111	0
07:30	12	58	2	0	72	2	0	6	0	8	1	85	1	0	87	0	0	2	0	2	169	0
07:45	4	67	1	0	72	5	1	7	0	13	1	58	2	0	61	1	1	1	0	3	149	0
<b>Total</b>	<b>22</b>	<b>201</b>	<b>4</b>	<b>0</b>	<b>227</b>	<b>9</b>	<b>2</b>	<b>21</b>	<b>0</b>	<b>32</b>	<b>4</b>	<b>221</b>	<b>7</b>	<b>0</b>	<b>232</b>	<b>2</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>9</b>	<b>500</b>	<b>0</b>
08:00	9	73	1	0	83	0	4	7	0	11	2	59	4	0	65	1	1	7	0	9	168	0
08:15	12	94	7	0	113	1	1	8	0	10	1	61	3	0	65	0	1	4	0	5	193	0
08:30	13	97	6	0	116	3	1	5	0	9	0	47	3	0	50	4	3	3	0	10	185	0
08:45	18	93	16	0	127	2	2	7	0	11	2	53	3	0	58	2	2	6	0	10	206	0
<b>Total</b>	<b>52</b>	<b>357</b>	<b>30</b>	<b>0</b>	<b>439</b>	<b>6</b>	<b>8</b>	<b>27</b>	<b>0</b>	<b>41</b>	<b>5</b>	<b>220</b>	<b>13</b>	<b>0</b>	<b>238</b>	<b>7</b>	<b>7</b>	<b>20</b>	<b>0</b>	<b>34</b>	<b>752</b>	<b>0</b>
16:00	23	79	5	0	107	3	5	21	0	29	3	58	9	0	70	0	3	6	0	9	215	0
16:15	31	97	7	0	135	4	4	12	0	20	1	80	16	0	97	1	1	6	0	8	260	0
16:30	26	102	4	0	132	4	3	19	1	27	2	80	13	0	95	1	3	6	0	10	264	1
16:45	31	96	6	0	133	3	1	18	0	22	5	71	13	0	89	4	1	5	0	10	254	0
<b>Total</b>	<b>111</b>	<b>374</b>	<b>22</b>	<b>0</b>	<b>507</b>	<b>14</b>	<b>13</b>	<b>70</b>	<b>1</b>	<b>98</b>	<b>11</b>	<b>289</b>	<b>51</b>	<b>0</b>	<b>351</b>	<b>6</b>	<b>8</b>	<b>23</b>	<b>0</b>	<b>37</b>	<b>993</b>	<b>1</b>
17:00	19	93	4	0	116	2	3	24	0	29	1	79	15	0	95	0	1	9	0	10	250	0
17:15	23	78	5	0	106	4	1	16	0	21	2	84	18	0	104	4	7	5	0	16	247	0
17:30	20	71	7	0	98	2	3	15	0	20	3	57	9	0	69	2	2	3	0	7	194	0
17:45	27	68	4	0	99	2	1	12	0	15	3	89	5	0	97	2	2	8	0	12	223	0
<b>Total</b>	<b>89</b>	<b>310</b>	<b>20</b>	<b>0</b>	<b>419</b>	<b>10</b>	<b>8</b>	<b>67</b>	<b>0</b>	<b>85</b>	<b>9</b>	<b>309</b>	<b>47</b>	<b>0</b>	<b>365</b>	<b>8</b>	<b>12</b>	<b>25</b>	<b>0</b>	<b>45</b>	<b>914</b>	<b>0</b>
<b>Grand Total</b>	<b>274</b>	<b>1242</b>	<b>76</b>	<b>0</b>	<b>1592</b>	<b>39</b>	<b>31</b>	<b>185</b>	<b>1</b>	<b>256</b>	<b>29</b>	<b>1039</b>	<b>118</b>	<b>0</b>	<b>1186</b>	<b>23</b>	<b>28</b>	<b>74</b>	<b>0</b>	<b>125</b>	<b>3159</b>	<b>1</b>
Apprch %	17.2%	78.0%	4.8%	0.0%		15.2%	12.1%	72.3%	0.4%		2.4%	87.6%	9.9%	0.0%		18.4%	22.4%	59.2%	0.0%			
Total %	8.7%	39.3%	2.4%	0.0%	50.4%	1.2%	1.0%	5.9%	0.0%	8.1%	0.9%	32.9%	3.7%	0.0%	37.5%	0.7%	0.9%	2.3%	0.0%	4.0%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-083 L Street-3rd Street.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	L Street Southbound					Westbound					L Street Northbound					3rd Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	26	9	0	35	0	0	0	0	0	14	23	0	0	37	7	0	5	1	13	85	1
07:15	0	30	7	0	37	0	0	0	0	0	10	19	0	0	29	6	0	11	0	17	83	0
07:30	0	35	5	0	40	0	0	0	0	0	6	32	0	0	38	7	0	13	0	20	98	0
07:45	0	58	12	0	70	0	0	0	0	0	17	34	0	0	51	4	0	27	0	31	152	0
Total	0	149	33	0	182	0	0	0	0	0	47	108	0	0	155	24	0	56	1	81	418	1
08:00	0	48	15	0	63	0	0	0	0	0	12	25	0	0	37	9	0	23	0	32	132	0
08:15	0	58	18	0	76	0	0	0	0	0	17	34	0	0	51	11	0	19	0	30	157	0
08:30	0	55	21	0	76	0	0	0	0	0	22	46	0	0	68	12	0	16	0	28	172	0
08:45	0	50	21	0	71	0	0	0	0	0	22	44	0	0	66	19	0	22	0	41	178	0
Total	0	211	75	0	286	0	0	0	0	0	73	149	0	0	222	51	0	80	0	131	639	0
16:00	0	60	13	0	73	0	0	0	0	0	20	57	0	1	78	23	0	36	0	59	210	1
16:15	0	65	20	0	85	0	0	0	0	0	26	49	0	0	75	25	0	49	0	74	234	0
16:30	0	68	21	0	89	0	0	0	0	0	27	49	0	0	76	29	0	32	0	61	226	0
16:45	0	68	28	0	96	0	0	0	0	0	35	45	0	0	80	29	0	40	0	69	245	0
Total	0	261	82	0	343	0	0	0	0	0	108	200	0	1	309	106	0	157	0	263	915	1
17:00	0	67	10	0	77	0	0	0	0	0	29	55	0	0	84	35	0	51	0	86	247	0
17:15	0	68	14	0	82	0	0	0	0	0	33	57	0	0	90	37	0	39	0	76	248	0
17:30	0	61	18	0	79	0	0	0	0	0	35	58	0	0	93	22	0	26	0	48	220	0
17:45	0	44	17	0	61	0	0	0	0	0	47	53	0	0	100	22	0	23	0	45	206	0
Total	0	240	59	0	299	0	0	0	0	0	144	223	0	0	367	116	0	139	0	255	921	0
Grand Total	0	861	249	0	1110	0	0	0	0	0	372	680	0	1	1053	297	0	432	1	730	2893	2
Apprch %	0.0%	77.6%	22.4%	0.0%		0.0%	0.0%	0.0%	0.0%		35.3%	64.6%	0.0%	0.1%		40.7%	0.0%	59.2%	0.1%			
Total %	0.0%	29.8%	8.6%	0.0%	38.4%	0.0%	0.0%	0.0%	0.0%	0.0%	12.9%	23.5%	0.0%	0.0%	36.4%	10.3%	0.0%	14.9%	0.0%	25.2%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-084 F Street-3rd Street.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	F Street Southbound					3rd Street Westbound					F Street Northbound					3rd Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	2	9	2	0	13	5	12	1	0	18	3	14	4	0	21	3	4	1	0	8	60	0
07:15	0	25	4	0	29	2	3	0	0	5	0	13	1	0	14	0	3	3	0	6	54	0
07:30	0	31	4	0	35	6	6	0	0	12	5	11	4	0	20	2	9	4	0	15	82	0
07:45	4	22	7	0	33	2	15	1	0	18	4	24	3	0	31	2	7	5	0	14	96	0
Total	6	87	17	0	110	15	36	2	0	53	12	62	12	0	86	7	23	13	0	43	292	0
08:00	5	31	11	0	47	4	23	2	0	29	2	16	5	0	23	2	8	3	0	13	112	0
08:15	2	23	12	0	37	10	16	3	0	29	3	22	3	0	28	1	8	6	0	15	109	0
08:30	3	25	8	0	36	4	24	2	0	30	3	25	3	0	31	4	10	5	0	19	116	0
08:45	4	27	6	0	37	6	26	2	0	34	4	20	10	0	34	1	10	6	0	17	122	0
Total	14	106	37	0	157	24	89	9	0	122	12	83	21	0	116	8	36	20	0	64	459	0
16:00	4	46	12	0	62	4	23	8	0	35	3	31	4	0	38	6	36	8	0	50	185	0
16:15	9	31	4	0	44	9	23	9	0	41	6	33	7	0	46	8	27	7	0	42	173	0
16:30	7	29	9	0	45	7	31	6	0	44	4	38	10	0	52	16	22	6	0	44	185	0
16:45	4	40	13	0	57	12	32	10	0	54	3	35	11	0	49	8	32	8	0	48	208	0
Total	24	146	38	0	208	32	109	33	0	174	16	137	32	0	185	38	117	29	0	184	751	0
17:00	7	33	14	0	54	6	31	6	0	43	6	46	12	0	64	7	28	13	0	48	209	0
17:15	12	32	15	0	59	9	31	6	0	46	5	41	11	0	57	5	43	6	0	54	216	0
17:30	6	47	10	0	63	12	32	9	0	53	11	30	11	0	52	11	24	9	0	44	212	0
17:45	3	42	10	0	55	11	25	8	0	44	8	32	10	0	50	9	20	9	0	38	187	0
Total	28	154	49	0	231	38	119	29	0	186	30	149	44	0	223	32	115	37	0	184	824	0
Grand Total	72	493	141	0	706	109	353	73	0	535	70	431	109	0	610	85	291	99	0	475	2326	0
Apprch %	10.2%	69.8%	20.0%	0.0%		20.4%	66.0%	13.6%	0.0%		11.5%	70.7%	17.9%	0.0%		17.9%	61.3%	20.8%	0.0%			
Total %	3.1%	21.2%	6.1%	0.0%	30.4%	4.7%	15.2%	3.1%	0.0%	23.0%	3.0%	18.5%	4.7%	0.0%	26.2%	3.7%	12.5%	4.3%	0.0%	20.4%	100.0%	



# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-085 B Street-3rd Street.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	B Street Southbound					3rd Street Westbound					B Street Northbound					3rd Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	4	35	2	0	41	4	0	3	0	7	0	22	0	0	22	0	1	0	0	1	71	0
07:15	9	41	0	0	50	1	0	3	0	4	0	64	0	0	64	0	0	0	0	0	118	0
07:30	14	71	2	0	87	2	0	5	0	7	0	86	1	0	87	0	0	1	0	1	182	0
07:45	8	70	2	0	80	3	0	11	0	14	1	64	2	0	67	0	0	0	0	0	161	0
Total	35	217	6	0	258	10	0	22	0	32	1	236	3	0	240	0	1	1	0	2	532	0
08:00	18	75	2	0	95	8	0	6	0	14	2	63	1	0	66	1	0	0	0	1	176	0
08:15	12	103	1	0	116	8	0	8	0	16	1	66	2	0	69	0	0	0	0	0	201	0
08:30	26	105	2	0	133	10	0	13	0	23	2	49	2	0	53	0	0	1	0	1	210	0
08:45	23	123	3	0	149	5	1	6	0	12	2	56	4	0	62	1	0	0	0	1	224	0
Total	79	406	8	0	493	31	1	33	0	65	7	234	9	0	250	2	0	1	0	3	811	0
16:00	32	94	2	0	128	11	1	16	0	28	0	64	14	0	78	1	1	0	0	2	236	0
16:15	30	128	3	0	161	9	0	14	0	23	4	77	9	0	90	0	0	0	0	0	274	0
16:30	40	133	3	0	176	8	1	17	0	26	3	84	15	0	102	1	1	0	0	2	306	0
16:45	42	120	6	0	168	5	4	17	0	26	1	83	10	0	94	0	0	0	0	0	288	0
Total	144	475	14	0	633	33	6	64	0	103	8	308	48	0	364	2	2	0	0	4	1104	0
17:00	33	110	8	0	151	7	4	25	0	36	2	82	11	0	95	2	2	0	0	4	286	0
17:15	46	96	5	0	147	7	2	19	0	28	1	100	13	0	114	0	0	0	0	0	289	0
17:30	41	92	4	0	137	5	2	20	0	27	2	64	7	0	73	0	0	0	0	0	237	0
17:45	36	86	3	0	125	12	0	19	0	31	1	87	8	0	96	1	1	0	0	2	254	0
Total	156	384	20	0	560	31	8	83	0	122	6	333	39	0	378	3	3	0	0	6	1066	0
Grand Total	414	1482	48	0	1944	105	15	202	0	322	22	1111	99	0	1232	7	6	2	0	15	3513	0
Apprch %	21.3%	76.2%	2.5%	0.0%		32.6%	4.7%	62.7%	0.0%		1.8%	90.2%	8.0%	0.0%		46.7%	40.0%	13.3%	0.0%			
Total %	11.8%	42.2%	1.4%	0.0%	55.3%	3.0%	0.4%	5.8%	0.0%	9.2%	0.6%	31.6%	2.8%	0.0%	35.1%	0.2%	0.2%	0.1%	0.0%	0.4%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-086 F Street-4th Street.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	F Street Southbound					4th Street Westbound					F Street Northbound					4th Street Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	1	11	0	0	12	1	1	0	0	2	0	14	4	0	18	0	2	0	0	2	34	0
07:15	1	28	0	0	29	2	2	3	0	7	0	11	0	0	11	0	2	1	0	3	50	0
07:30	1	32	2	0	35	1	10	1	0	12	1	13	0	0	14	0	2	1	0	3	64	0
07:45	8	38	2	0	48	2	12	1	0	15	3	22	3	0	28	0	3	2	0	5	96	0
Total	11	109	4	0	124	6	25	5	0	36	4	60	7	0	71	0	9	4	0	13	244	0
08:00	7	42	3	0	52	5	9	3	0	17	0	21	2	0	23	2	3	2	0	7	99	0
08:15	5	36	5	0	46	2	7	3	0	12	4	15	4	0	23	1	5	0	0	6	87	0
08:30	7	41	4	0	52	1	6	3	0	10	3	15	8	0	26	1	7	1	0	9	97	0
08:45	8	31	3	0	42	6	15	2	0	23	2	17	3	0	22	1	10	1	0	12	99	0
Total	27	150	15	0	192	14	37	11	0	62	9	68	17	0	94	5	25	4	0	34	382	0
16:00	9	57	9	0	75	4	17	7	0	28	5	31	9	0	45	12	19	11	0	42	190	0
16:15	12	45	13	0	70	5	16	6	0	27	4	40	7	0	51	7	12	2	0	21	169	0
16:30	10	48	10	0	68	5	11	8	0	24	2	49	11	0	62	10	20	4	0	34	188	0
16:45	11	49	10	0	70	5	17	8	0	30	3	41	14	0	58	9	20	6	0	35	193	0
Total	42	199	42	0	283	19	61	29	0	109	14	161	41	0	216	38	71	23	0	132	740	0
17:00	8	51	7	0	66	5	15	11	0	31	2	53	9	0	64	12	20	2	0	34	195	0
17:15	11	57	14	0	82	5	9	9	0	23	5	49	5	0	59	14	21	10	0	45	209	0
17:30	12	53	8	0	73	9	12	11	0	32	3	49	5	0	57	7	21	5	0	33	195	0
17:45	12	45	7	0	64	1	3	5	0	9	5	37	4	0	46	8	13	6	0	27	146	0
Total	43	206	36	0	285	20	39	36	0	95	15	188	23	0	226	41	75	23	0	139	745	0
Grand Total	123	664	97	0	884	59	162	81	0	302	42	477	88	0	607	84	180	54	0	318	2111	0
Apprch %	13.9%	75.1%	11.0%	0.0%		19.5%	53.6%	26.8%	0.0%		6.9%	78.6%	14.5%	0.0%		26.4%	56.6%	17.0%	0.0%			
Total %	5.8%	31.5%	4.6%	0.0%	41.9%	2.8%	7.7%	3.8%	0.0%	14.3%	2.0%	22.6%	4.2%	0.0%	28.8%	4.0%	8.5%	2.6%	0.0%	15.1%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-087 I-80 EB Ramps-Richards Boulevard.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	I-80 EB Ramps Southbound					Richards Boulevard Westbound					Northbound					Richards Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	38	0	26	0	64	0	69	31	0	100	0	0	0	0	0	34	29	0	0	63	227	0
07:15	53	0	33	0	86	0	93	24	0	117	0	0	0	0	0	44	44	0	0	88	291	0
07:30	62	0	36	0	98	0	143	26	0	169	0	0	0	0	0	49	72	0	0	121	388	0
07:45	106	0	59	0	165	0	155	24	0	179	0	0	0	0	0	66	79	0	0	145	489	0
<b>Total</b>	<b>259</b>	<b>0</b>	<b>154</b>	<b>0</b>	<b>413</b>	<b>0</b>	<b>460</b>	<b>105</b>	<b>0</b>	<b>565</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>193</b>	<b>224</b>	<b>0</b>	<b>0</b>	<b>417</b>	<b>1395</b>	<b>0</b>
08:00	96	0	51	0	147	0	130	26	0	156	0	0	0	0	0	52	100	0	0	152	455	0
08:15	106	0	49	0	155	0	119	21	0	140	0	0	0	0	0	79	89	0	0	168	463	0
08:30	80	0	52	0	132	0	185	27	1	213	0	0	0	0	0	53	86	0	0	139	484	1
08:45	74	0	61	0	135	0	148	16	0	164	0	0	0	0	0	42	80	0	0	122	421	0
<b>Total</b>	<b>356</b>	<b>0</b>	<b>213</b>	<b>0</b>	<b>569</b>	<b>0</b>	<b>582</b>	<b>90</b>	<b>1</b>	<b>673</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>226</b>	<b>355</b>	<b>0</b>	<b>0</b>	<b>581</b>	<b>1823</b>	<b>1</b>
16:00	82	0	41	0	123	0	168	49	0	217	0	0	0	0	0	58	86	0	1	145	485	1
16:15	96	0	43	0	139	0	171	26	0	197	0	0	0	0	0	78	117	0	0	195	531	0
16:30	97	0	61	0	158	0	191	41	0	232	0	0	0	0	0	71	108	0	0	179	569	0
16:45	109	0	61	0	170	0	128	41	0	169	0	0	0	0	0	83	111	0	0	194	533	0
<b>Total</b>	<b>384</b>	<b>0</b>	<b>206</b>	<b>0</b>	<b>590</b>	<b>0</b>	<b>658</b>	<b>157</b>	<b>0</b>	<b>815</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>290</b>	<b>422</b>	<b>0</b>	<b>1</b>	<b>713</b>	<b>2118</b>	<b>1</b>
17:00	85	0	51	0	136	0	241	50	0	291	0	0	0	0	0	87	90	0	0	177	604	0
17:15	107	0	64	0	171	0	165	33	0	198	0	0	0	0	0	85	92	0	1	178	547	1
17:30	88	0	51	0	139	0	191	40	0	231	0	0	0	0	0	68	129	0	0	197	567	0
17:45	75	0	52	0	127	0	162	35	1	198	0	0	0	0	0	72	103	0	0	175	500	1
<b>Total</b>	<b>355</b>	<b>0</b>	<b>218</b>	<b>0</b>	<b>573</b>	<b>0</b>	<b>759</b>	<b>158</b>	<b>1</b>	<b>918</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>312</b>	<b>414</b>	<b>0</b>	<b>1</b>	<b>727</b>	<b>2218</b>	<b>2</b>
<b>Grand Total</b>	<b>1354</b>	<b>0</b>	<b>791</b>	<b>0</b>	<b>2145</b>	<b>0</b>	<b>2459</b>	<b>510</b>	<b>2</b>	<b>2971</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1021</b>	<b>1415</b>	<b>0</b>	<b>2</b>	<b>2438</b>	<b>7554</b>	<b>4</b>
Apprch %	63.1%	0.0%	36.9%	0.0%		0.0%	82.8%	17.2%	0.1%		0.0%	0.0%	0.0%	0.0%		41.9%	58.0%	0.0%	0.1%			
Total %	17.9%	0.0%	10.5%	0.0%	28.4%	0.0%	32.6%	6.8%	0.0%	39.3%	0.0%	0.0%	0.0%	0.0%	0.0%	13.5%	18.7%	0.0%	0.0%	32.3%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-088 I-80 WB Ramps-Richards Boulevard.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	I-80 WB Ramps Southbound					Richards Boulevard Westbound					I-80 WB Ramps Northbound					Richards Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	71	0	71	0	54	41	0	95	0	0	15	0	15	0	51	34	0	85	266	0
07:15	0	0	101	0	101	0	80	46	0	126	0	0	28	0	28	0	58	38	0	96	351	0
07:30	0	0	103	0	103	0	87	87	0	174	0	0	47	0	47	0	85	35	0	120	444	0
07:45	0	0	106	0	106	0	102	113	0	215	0	0	52	0	52	0	85	45	0	130	503	0
Total	0	0	381	0	381	0	323	287	0	610	0	0	142	0	142	0	279	152	0	431	1564	0
08:00	0	0	108	0	108	0	92	84	0	176	0	0	59	0	59	0	94	39	0	133	476	0
08:15	0	0	97	0	97	0	101	75	0	176	0	0	37	0	37	0	124	35	0	159	469	0
08:30	0	0	76	0	76	0	121	115	0	236	0	0	51	0	51	0	94	35	0	129	492	0
08:45	0	0	96	0	96	0	112	91	0	203	0	0	58	0	58	0	63	49	0	112	469	0
Total	0	0	377	0	377	0	426	365	0	791	0	0	205	0	205	0	375	158	0	533	1906	0
16:00	0	0	75	0	75	0	110	103	0	213	0	0	16	0	16	0	142	73	0	215	519	0
16:15	0	0	80	0	80	0	120	89	0	209	0	0	18	0	18	0	161	59	0	220	527	0
16:30	0	0	81	0	81	0	120	123	0	243	0	0	13	0	13	0	190	69	0	259	596	0
16:45	0	0	90	0	90	0	116	80	0	196	0	0	17	0	17	0	160	81	0	241	544	0
Total	0	0	326	0	326	0	466	395	0	861	0	0	64	0	64	0	653	282	0	935	2186	0
17:00	0	0	71	0	71	0	139	163	0	302	0	0	21	0	21	0	160	90	0	250	644	0
17:15	0	0	80	0	80	0	130	96	0	226	0	0	18	0	18	0	147	63	0	210	534	0
17:30	0	0	81	0	81	0	126	100	0	226	0	0	26	0	26	0	175	79	0	254	587	0
17:45	0	0	85	0	85	0	112	104	0	216	0	0	23	0	23	0	144	58	0	202	526	0
Total	0	0	317	0	317	0	507	463	0	970	0	0	88	0	88	0	626	290	0	916	2291	0
Grand Total	0	0	1401	0	1401	0	1722	1510	0	3232	0	0	499	0	499	0	1933	882	0	2815	7947	0
Apprch %	0.0%	0.0%	100.0%	0.0%		0.0%	53.3%	46.7%	0.0%		0.0%	0.0%	100.0%	0.0%		0.0%	68.7%	31.3%	0.0%			
Total %	0.0%	0.0%	17.6%	0.0%	17.6%	0.0%	21.7%	19.0%	0.0%	40.7%	0.0%	0.0%	6.3%	0.0%	6.3%	0.0%	24.3%	11.1%	0.0%	35.4%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-089 In & Out-Caffe Italia Driveways-Richards Boul  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	In & Out Driveway Southbound					Richards Boulevard Westbound					Caffe Italia Driveway Northbound					Richards Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	1	0	0	0	1	7	111	3	0	121	3	0	2	0	5	0	78	1	0	79	206	0
07:15	1	0	1	0	2	4	168	3	0	175	1	0	2	0	3	1	94	2	0	97	277	0
07:30	2	0	0	0	2	2	186	4	1	193	1	0	2	0	3	0	113	1	0	114	312	1
07:45	1	0	0	0	1	3	196	6	1	206	3	0	1	0	4	0	131	1	0	132	343	1
Total	5	0	1	0	6	16	661	16	2	695	8	0	7	0	15	1	416	5	0	422	1138	2
08:00	2	0	2	0	4	6	190	2	1	199	2	0	4	0	6	2	126	2	0	130	339	1
08:15	2	0	3	0	5	9	189	4	1	203	2	0	1	0	3	1	153	3	0	157	368	1
08:30	0	0	1	0	1	3	186	2	0	191	3	0	3	0	6	0	129	0	0	129	327	0
08:45	2	0	0	0	2	6	199	2	0	207	1	0	4	0	5	0	100	3	0	103	317	0
Total	6	0	6	0	12	24	764	10	2	800	8	0	12	0	20	3	508	8	0	519	1351	2
16:00	2	0	0	0	2	1	164	12	0	177	1	0	2	0	3	4	206	2	0	212	394	0
16:15	2	0	2	0	4	0	192	12	1	205	0	0	1	0	1	1	225	1	0	227	437	1
16:30	1	0	1	0	2	0	180	10	1	191	2	0	4	0	6	0	246	4	0	250	449	1
16:45	3	0	1	0	4	3	188	18	0	209	0	0	3	0	3	1	240	3	0	244	460	0
Total	8	0	4	0	12	4	724	52	2	782	3	0	10	0	13	6	917	10	0	933	1740	2
17:00	2	0	4	0	6	1	189	14	0	204	0	0	2	0	2	1	243	1	0	245	457	0
17:15	4	0	3	0	7	7	198	15	0	220	0	0	1	0	1	0	213	2	0	215	443	0
17:30	2	0	1	0	3	4	183	12	0	199	0	0	9	0	9	2	239	2	0	243	454	0
17:45	1	0	1	0	2	4	181	14	1	200	0	0	1	0	1	3	209	0	0	212	415	1
Total	9	0	9	0	18	16	751	55	1	823	0	0	13	0	13	6	904	5	0	915	1769	1
Grand Total	28	0	20	0	48	60	2900	133	7	3100	19	0	42	0	61	16	2745	28	0	2789	5998	7
Apprch %	58.3%	0.0%	41.7%	0.0%		1.9%	93.5%	4.3%	0.2%		31.1%	0.0%	68.9%	0.0%		0.6%	98.4%	1.0%	0.0%			
Total %	0.5%	0.0%	0.3%	0.0%	0.8%	1.0%	48.3%	2.2%	0.1%	51.7%	0.3%	0.0%	0.7%	0.0%	1.0%	0.3%	45.8%	0.5%	0.0%	46.5%	100.0%	

### 14-7680-089 Secondary Driveway

Inbound and Outbound Vehicles @ Dutch Brothers Driveway

AM	Outbound		Inbound	
	Northbound Left	Northbound Right	Eastbound Right	Westbound Left
7:00	1	4	2	12
7:15	0	7	2	9
7:30	1	6	1	10
7:45	1	7	0	13
8:00	0	7	1	9
8:15	2	10	1	9
8:30	0	6	3	10
8:45	1	8	2	8
	3	30	5	41

PM	Outbound		Inbound	
	Northbound Left	Northbound Right	Eastbound Right	Westbound Left
16:00	0	1	3	6
16:15	0	7	2	3
16:30	0	4	2	6
16:45	0	7	2	3
17:00	0	4	4	6
17:15	0	5	2	3
17:30	0	5	1	2
17:45	0	7	2	5
	0	20	10	18

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-090 Olive Drive-Richards Boulevard.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Olive Drive Southbound					Richards Boulevard Westbound					Olive Drive Northbound					Richards Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	5	4	11	0	20	6	93	7	0	106	3	1	8	0	12	3	63	0	0	66	204	0
07:15	6	3	19	0	28	17	131	9	0	157	3	1	7	0	11	5	77	4	0	86	282	0
07:30	12	8	16	0	36	17	161	3	0	181	6	2	12	0	20	4	88	2	0	94	331	0
07:45	13	7	26	0	46	8	171	5	0	184	5	0	14	0	19	4	99	4	0	107	356	0
<b>Total</b>	<b>36</b>	<b>22</b>	<b>72</b>	<b>0</b>	<b>130</b>	<b>48</b>	<b>556</b>	<b>24</b>	<b>0</b>	<b>628</b>	<b>17</b>	<b>4</b>	<b>41</b>	<b>0</b>	<b>62</b>	<b>16</b>	<b>327</b>	<b>10</b>	<b>0</b>	<b>353</b>	<b>1173</b>	<b>0</b>
08:00	14	6	26	0	46	13	169	6	0	188	4	0	15	0	19	5	93	9	0	107	360	0
08:15	16	5	37	0	58	11	168	5	0	184	8	1	9	0	18	6	123	7	0	136	396	0
08:30	19	4	33	0	56	11	165	9	0	185	4	0	13	0	17	8	97	10	0	115	373	0
08:45	13	2	24	0	39	11	176	7	0	194	9	1	7	0	17	1	78	3	0	82	332	0
<b>Total</b>	<b>62</b>	<b>17</b>	<b>120</b>	<b>0</b>	<b>199</b>	<b>46</b>	<b>678</b>	<b>27</b>	<b>0</b>	<b>751</b>	<b>25</b>	<b>2</b>	<b>44</b>	<b>0</b>	<b>71</b>	<b>20</b>	<b>391</b>	<b>29</b>	<b>0</b>	<b>440</b>	<b>1461</b>	<b>0</b>
16:00	30	0	17	0	47	10	145	9	0	164	6	0	21	0	27	14	160	14	0	188	426	0
16:15	23	8	32	0	63	9	165	12	0	186	8	1	17	0	26	22	179	9	0	210	485	0
16:30	36	5	45	0	86	11	149	19	0	179	7	4	24	0	35	13	189	6	0	208	508	0
16:45	26	4	48	0	78	7	161	14	0	182	6	2	17	0	25	16	192	4	0	212	497	0
<b>Total</b>	<b>115</b>	<b>17</b>	<b>142</b>	<b>0</b>	<b>274</b>	<b>37</b>	<b>620</b>	<b>54</b>	<b>0</b>	<b>711</b>	<b>27</b>	<b>7</b>	<b>79</b>	<b>0</b>	<b>113</b>	<b>65</b>	<b>720</b>	<b>33</b>	<b>0</b>	<b>818</b>	<b>1916</b>	<b>0</b>
17:00	39	2	42	0	83	5	169	18	0	192	7	0	14	0	21	21	193	9	0	223	519	0
17:15	26	2	35	0	63	6	174	18	0	198	6	2	10	0	18	24	175	9	0	208	487	0
17:30	31	6	36	0	73	5	159	18	0	182	3	3	23	0	29	12	182	4	0	198	482	0
17:45	34	6	48	0	88	3	156	13	0	172	6	1	9	0	16	12	166	4	0	182	458	0
<b>Total</b>	<b>130</b>	<b>16</b>	<b>161</b>	<b>0</b>	<b>307</b>	<b>19</b>	<b>658</b>	<b>67</b>	<b>0</b>	<b>744</b>	<b>22</b>	<b>6</b>	<b>56</b>	<b>0</b>	<b>84</b>	<b>69</b>	<b>716</b>	<b>26</b>	<b>0</b>	<b>811</b>	<b>1946</b>	<b>0</b>
<b>Grand Total</b>	<b>343</b>	<b>72</b>	<b>495</b>	<b>0</b>	<b>910</b>	<b>150</b>	<b>2512</b>	<b>172</b>	<b>0</b>	<b>2834</b>	<b>91</b>	<b>19</b>	<b>220</b>	<b>0</b>	<b>330</b>	<b>170</b>	<b>2154</b>	<b>98</b>	<b>0</b>	<b>2422</b>	<b>6496</b>	<b>0</b>
Apprch %	37.7%	7.9%	54.4%	0.0%		5.3%	88.6%	6.1%	0.0%		27.6%	5.8%	66.7%	0.0%		7.0%	88.9%	4.0%	0.0%			
Total %	5.3%	1.1%	7.6%	0.0%	14.0%	2.3%	38.7%	2.6%	0.0%	43.6%	1.4%	0.3%	3.4%	0.0%	5.1%	2.6%	33.2%	1.5%	0.0%	37.3%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-091 CR 98 (Pedrick Road)-CR 31 (Covell Boulevard)  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	CR 98 (Pedrick Road) Southbound					CR 31 (Covell Boulevard) Westbound					CR 98 (Pedrick Road) Northbound					CR 31 (Covell Boulevard) Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	3	31	4	0	38	3	16	3	0	22	2	10	5	0	17	7	43	6	0	56	133	0
07:15	4	22	7	0	33	9	27	0	0	36	0	14	6	0	20	15	65	8	0	88	177	0
07:30	9	30	5	0	44	8	29	4	0	41	4	32	6	0	42	15	59	4	0	78	205	0
07:45	10	28	9	0	47	7	25	8	0	40	2	16	9	0	27	13	81	1	0	95	209	0
<b>Total</b>	<b>26</b>	<b>111</b>	<b>25</b>	<b>0</b>	<b>162</b>	<b>27</b>	<b>97</b>	<b>15</b>	<b>0</b>	<b>139</b>	<b>8</b>	<b>72</b>	<b>26</b>	<b>0</b>	<b>106</b>	<b>50</b>	<b>248</b>	<b>19</b>	<b>0</b>	<b>317</b>	<b>724</b>	<b>0</b>
08:00	9	23	13	0	45	18	34	5	0	57	5	19	10	0	34	8	46	6	0	60	196	0
08:15	4	23	11	0	38	15	41	4	0	60	4	23	7	0	34	11	60	8	0	79	211	0
08:30	5	17	5	0	27	11	24	1	0	36	10	16	7	0	33	10	27	5	0	42	138	0
08:45	5	17	7	0	29	12	24	5	0	41	18	14	8	0	40	11	51	7	0	69	179	0
<b>Total</b>	<b>23</b>	<b>80</b>	<b>36</b>	<b>0</b>	<b>139</b>	<b>56</b>	<b>123</b>	<b>15</b>	<b>0</b>	<b>194</b>	<b>37</b>	<b>72</b>	<b>32</b>	<b>0</b>	<b>141</b>	<b>40</b>	<b>184</b>	<b>26</b>	<b>0</b>	<b>250</b>	<b>724</b>	<b>0</b>
16:00	2	12	11	0	25	5	58	1	0	64	7	36	8	0	51	18	62	4	0	84	224	0
16:15	3	20	14	0	37	11	55	8	0	74	6	35	7	0	48	15	54	3	0	72	231	0
16:30	4	18	15	0	37	8	53	2	0	63	6	38	15	0	59	15	53	5	0	73	232	0
16:45	6	26	5	0	37	7	63	5	0	75	3	33	7	0	43	20	61	3	0	84	239	0
<b>Total</b>	<b>15</b>	<b>76</b>	<b>45</b>	<b>0</b>	<b>136</b>	<b>31</b>	<b>229</b>	<b>16</b>	<b>0</b>	<b>276</b>	<b>22</b>	<b>142</b>	<b>37</b>	<b>0</b>	<b>201</b>	<b>68</b>	<b>230</b>	<b>15</b>	<b>0</b>	<b>313</b>	<b>926</b>	<b>0</b>
17:00	10	29	10	0	49	7	56	5	0	68	6	38	15	0	59	9	57	4	0	70	246	0
17:15	9	14	7	0	30	5	60	10	0	75	2	40	8	0	50	6	55	1	0	62	217	0
17:30	4	26	13	0	43	8	73	6	0	87	1	27	9	0	37	11	45	2	0	58	225	0
17:45	9	16	9	0	34	8	53	0	0	61	0	31	9	0	40	17	39	2	0	58	193	0
<b>Total</b>	<b>32</b>	<b>85</b>	<b>39</b>	<b>0</b>	<b>156</b>	<b>28</b>	<b>242</b>	<b>21</b>	<b>0</b>	<b>291</b>	<b>9</b>	<b>136</b>	<b>41</b>	<b>0</b>	<b>186</b>	<b>43</b>	<b>196</b>	<b>9</b>	<b>0</b>	<b>248</b>	<b>881</b>	<b>0</b>
<b>Grand Total</b>	<b>96</b>	<b>352</b>	<b>145</b>	<b>0</b>	<b>593</b>	<b>142</b>	<b>691</b>	<b>67</b>	<b>0</b>	<b>900</b>	<b>76</b>	<b>422</b>	<b>136</b>	<b>0</b>	<b>634</b>	<b>201</b>	<b>858</b>	<b>69</b>	<b>0</b>	<b>1128</b>	<b>3255</b>	<b>0</b>
Apprch %	16.2%	59.4%	24.5%	0.0%		15.8%	76.8%	7.4%	0.0%		12.0%	66.6%	21.5%	0.0%		17.8%	76.1%	6.1%	0.0%			
Total %	2.9%	10.8%	4.5%	0.0%	18.2%	4.4%	21.2%	2.1%	0.0%	27.6%	2.3%	13.0%	4.2%	0.0%	19.5%	6.2%	26.4%	2.1%	0.0%	34.7%	100.0%	



# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-092 CR 99D-CR 29.ppd  
 Date : 10/16/2014

## Unshifted Count = All Vehicles

START TIME	CR 99D Southbound					CR 29 Westbound					CR 99D Northbound					CR 29 Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	1	0	1	0	2	5	18	0	0	23	2	0	3	0	5	0	21	2	0	23	53	0
07:15	1	0	0	0	1	4	20	0	0	24	1	0	3	0	4	0	51	6	0	57	86	0
07:30	0	0	0	0	0	6	31	1	0	38	5	0	8	0	13	1	50	6	0	57	108	0
07:45	1	0	3	0	4	19	41	2	0	62	0	0	3	0	3	1	63	14	0	78	147	0
<b>Total</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>7</b>	<b>34</b>	<b>110</b>	<b>3</b>	<b>0</b>	<b>147</b>	<b>8</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>25</b>	<b>2</b>	<b>185</b>	<b>28</b>	<b>0</b>	<b>215</b>	<b>394</b>	<b>0</b>
08:00	0	0	0	0	0	12	34	2	0	48	4	0	1	0	5	1	50	4	0	55	108	0
08:15	0	0	0	0	0	9	32	3	0	44	1	0	5	0	6	2	44	9	0	55	105	0
08:30	1	0	0	0	1	13	36	4	1	54	3	1	1	0	5	1	45	4	0	50	110	1
08:45	0	0	1	1	2	10	38	8	0	56	4	0	5	0	9	0	33	1	0	34	101	1
<b>Total</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>44</b>	<b>140</b>	<b>17</b>	<b>1</b>	<b>202</b>	<b>12</b>	<b>1</b>	<b>12</b>	<b>0</b>	<b>25</b>	<b>4</b>	<b>172</b>	<b>18</b>	<b>0</b>	<b>194</b>	<b>424</b>	<b>2</b>
16:00	3	0	2	0	5	1	31	2	0	34	5	0	11	0	16	2	36	1	0	39	94	0
16:15	4	0	0	0	4	4	38	6	0	48	4	1	13	0	18	2	31	1	0	34	104	0
16:30	3	0	0	0	3	1	46	1	0	48	5	1	9	0	15	1	31	4	0	36	102	0
16:45	5	1	2	0	8	9	31	4	0	44	10	0	8	0	18	2	42	1	0	45	115	0
<b>Total</b>	<b>15</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>20</b>	<b>15</b>	<b>146</b>	<b>13</b>	<b>0</b>	<b>174</b>	<b>24</b>	<b>2</b>	<b>41</b>	<b>0</b>	<b>67</b>	<b>7</b>	<b>140</b>	<b>7</b>	<b>0</b>	<b>154</b>	<b>415</b>	<b>0</b>
17:00	6	1	2	0	9	1	41	4	0	46	12	0	18	0	30	0	43	4	0	47	132	0
17:15	5	0	0	0	5	3	45	8	0	56	7	0	12	0	19	2	51	0	0	53	133	0
17:30	4	1	2	0	7	3	38	3	0	44	3	0	4	0	7	2	25	1	0	28	86	0
17:45	3	0	5	0	8	3	37	0	0	40	6	0	5	0	11	0	30	3	0	33	92	0
<b>Total</b>	<b>18</b>	<b>2</b>	<b>9</b>	<b>0</b>	<b>29</b>	<b>10</b>	<b>161</b>	<b>15</b>	<b>0</b>	<b>186</b>	<b>28</b>	<b>0</b>	<b>39</b>	<b>0</b>	<b>67</b>	<b>4</b>	<b>149</b>	<b>8</b>	<b>0</b>	<b>161</b>	<b>443</b>	<b>0</b>
<b>Grand Total</b>	<b>37</b>	<b>3</b>	<b>18</b>	<b>1</b>	<b>59</b>	<b>103</b>	<b>557</b>	<b>48</b>	<b>1</b>	<b>709</b>	<b>72</b>	<b>3</b>	<b>109</b>	<b>0</b>	<b>184</b>	<b>17</b>	<b>646</b>	<b>61</b>	<b>0</b>	<b>724</b>	<b>1676</b>	<b>2</b>
Apprch %	62.7%	5.1%	30.5%	1.7%		14.5%	78.6%	6.8%	0.1%		39.1%	1.6%	59.2%	0.0%		2.3%	89.2%	8.4%	0.0%			
Total %	2.2%	0.2%	1.1%	0.1%	3.5%	6.1%	33.2%	2.9%	0.1%	42.3%	4.3%	0.2%	6.5%	0.0%	11.0%	1.0%	38.5%	3.6%	0.0%	43.2%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-093 CR 105-CR 32A.ppd  
 Date : 10/15/2014

## Unshifted Count = All Vehicles

START TIME	CR 105 Southbound					Westbound					CR 105 Northbound					CR 32A Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	9	3	0	12	0	0	0	0	0	13	7	0	0	20	3	0	4	0	7	39	0
07:15	0	8	3	0	11	0	0	0	0	0	7	4	0	0	11	0	0	3	0	3	25	0
07:30	0	9	0	0	9	0	0	0	0	0	11	3	0	0	14	1	0	10	0	11	34	0
07:45	0	17	1	0	18	0	0	0	0	0	22	6	0	0	28	4	0	10	0	14	60	0
<b>Total</b>	0	43	7	0	50	0	0	0	0	0	53	20	0	0	73	8	0	27	0	35	158	0
08:00	0	6	3	0	9	0	0	0	0	0	15	6	0	1	22	0	0	13	0	13	44	1
08:15	0	11	1	0	12	0	0	0	0	0	16	8	0	0	24	0	0	14	0	14	50	0
08:30	0	8	3	0	11	0	0	0	0	0	7	3	0	0	10	4	0	11	1	16	37	1
08:45	0	5	2	0	7	0	0	0	0	0	6	6	0	0	12	0	0	5	0	5	24	0
<b>Total</b>	0	30	9	0	39	0	0	0	0	0	44	23	0	1	68	4	0	43	1	48	155	2
16:00	0	6	2	0	8	0	0	0	0	0	7	14	0	0	21	1	0	37	0	38	67	0
16:15	0	7	2	0	9	0	0	0	0	0	11	11	0	0	22	1	0	32	0	33	64	0
16:30	0	12	4	0	16	0	0	0	0	0	8	8	0	0	16	0	0	60	0	60	92	0
16:45	0	8	3	0	11	0	0	0	0	0	13	16	0	0	29	1	0	53	0	54	94	0
<b>Total</b>	0	33	11	0	44	0	0	0	0	0	39	49	0	0	88	3	0	182	0	185	317	0
17:00	0	5	7	0	12	0	0	0	0	0	5	10	0	0	15	1	0	57	0	58	85	0
17:15	0	1	0	0	1	0	0	0	0	0	12	16	0	0	28	4	0	67	0	71	100	0
17:30	0	8	1	0	9	0	0	0	0	0	13	6	0	0	19	4	0	24	0	28	56	0
17:45	0	5	2	0	7	0	0	0	0	0	8	5	0	0	13	1	0	27	0	28	48	0
<b>Total</b>	0	19	10	0	29	0	0	0	0	0	38	37	0	0	75	10	0	175	0	185	289	0
<b>Grand Total</b>	0	125	37	0	162	0	0	0	0	0	174	129	0	1	304	25	0	427	1	453	919	2
Apprch %	0.0%	77.2%	22.8%	0.0%		0.0%	0.0%	0.0%	0.0%		57.2%	42.4%	0.0%	0.3%		5.5%	0.0%	94.3%	0.2%			
Total %	0.0%	13.6%	4.0%	0.0%	17.6%	0.0%	0.0%	0.0%	0.0%	0.0%	18.9%	14.0%	0.0%	0.1%	33.1%	2.7%	0.0%	46.5%	0.1%	49.3%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-094 I-80 WB Ramps-CR 32A.ppd  
 Date : 10/15/2014

## Unshifted Count = All Vehicles

START TIME	Southbound					CR 32A Westbound					I-80 WB Ramps Northbound					CR 32A Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	1	0	0	0	1	20	0	15	0	35	0	14	0	0	14	50	0
07:15	0	0	0	0	0	0	0	0	0	0	11	0	18	1	30	0	10	0	0	10	40	1
07:30	0	0	0	0	0	1	0	0	1	2	13	0	13	0	26	0	20	0	0	20	48	1
07:45	0	0	0	0	0	2	1	0	0	3	30	0	12	0	42	0	24	0	0	24	69	0
Total	0	0	0	0	0	4	1	0	1	6	74	0	58	1	133	0	68	0	0	68	207	2
08:00	0	0	0	0	0	0	0	0	0	0	20	0	11	0	31	0	21	0	0	21	52	0
08:15	0	0	0	0	0	2	1	0	0	3	21	0	15	0	36	0	23	0	0	23	62	0
08:30	0	0	0	0	0	1	0	0	0	1	12	0	14	0	26	0	19	0	0	19	46	0
08:45	0	0	0	0	0	1	1	0	0	2	11	0	7	1	19	0	15	0	0	15	36	1
Total	0	0	0	0	0	4	2	0	0	6	64	0	47	1	112	0	78	0	0	78	196	1
16:00	0	0	0	0	0	2	0	0	0	2	17	0	10	0	27	0	35	0	0	35	64	0
16:15	0	0	0	0	0	3	0	0	0	3	23	0	15	0	38	0	40	0	0	40	81	0
16:30	0	0	0	0	0	4	0	0	2	6	14	0	19	0	33	0	64	0	0	64	103	2
16:45	0	0	0	0	0	4	2	0	0	6	29	0	16	0	45	0	71	0	0	71	122	0
Total	0	0	0	0	0	13	2	0	2	17	83	0	60	0	143	0	210	0	0	210	370	2
17:00	0	0	0	0	0	2	1	0	0	3	16	0	17	0	33	0	58	0	0	58	94	0
17:15	0	0	0	0	0	1	1	0	0	2	27	0	17	0	44	0	65	0	0	65	111	0
17:30	0	0	0	0	0	1	1	0	0	2	19	0	17	0	36	0	40	1	0	41	79	0
17:45	0	0	0	0	0	2	1	0	0	3	9	0	15	0	24	0	34	0	0	34	61	0
Total	0	0	0	0	0	6	4	0	0	10	71	0	66	0	137	0	197	1	0	198	345	0
Grand Total	0	0	0	0	0	27	9	0	3	39	292	0	231	2	525	0	553	1	0	554	1118	5
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	69.2%	23.1%	0.0%	7.7%	3.5%	55.6%	0.0%	44.0%	0.4%	47.0%	0.0%	99.8%	0.2%	0.0%	49.6%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	0.8%	0.0%	0.3%	3.5%	26.1%	0.0%	20.7%	0.2%	47.0%	0.0%	49.5%	0.1%	0.0%	49.6%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7098-001 I-80 EB Ramps-County Road 32B (Chiles Roa  
 Date : 2/3/2015

## Unshifted Count = All Vehicles

START TIME	I-80 EB Ramps Southbound					County Road 32B (Chiles Road) Westbound					Northbound					County Road 32B (Chiles Road) Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	3	0	0	0	3	0	12	20	0	32	0	0	0	0	0	21	2	0	0	23	58	0
07:15	1	0	3	0	4	0	12	25	0	37	0	0	0	0	0	30	0	0	0	30	71	0
07:30	1	0	1	0	2	0	10	20	0	30	0	0	0	0	0	34	3	0	0	37	69	0
07:45	0	0	3	0	3	0	19	27	0	46	0	0	0	0	0	45	1	0	0	46	95	0
Total	5	0	7	0	12	0	53	92	0	145	0	0	0	0	0	130	6	0	0	136	293	0
08:00	0	0	2	0	2	0	13	30	0	43	0	0	0	0	0	43	2	0	0	45	90	0
08:15	0	0	4	0	4	0	13	25	0	38	0	0	0	0	0	39	1	0	0	40	82	0
08:30	0	0	1	0	1	0	5	24	0	29	0	0	0	0	0	30	2	0	0	32	62	0
08:45	2	0	2	0	4	0	7	14	0	21	0	0	0	0	0	24	2	0	0	26	51	0
Total	2	0	9	0	11	0	38	93	0	131	0	0	0	0	0	136	7	0	0	143	285	0
16:00	0	0	2	0	2	0	11	47	0	58	0	0	0	0	0	67	1	0	0	68	128	0
16:15	1	0	2	0	3	0	8	62	0	70	0	0	0	0	0	77	0	0	0	77	150	0
16:30	3	0	8	0	11	0	14	43	0	57	0	0	0	0	0	46	3	0	0	49	117	0
16:45	1	0	1	0	2	0	8	58	0	66	0	0	0	0	0	42	3	0	0	45	113	0
Total	5	0	13	0	18	0	41	210	0	251	0	0	0	0	0	232	7	0	0	239	508	0
17:00	0	0	2	0	2	0	13	59	0	72	0	0	0	0	0	58	3	0	0	61	135	0
17:15	1	0	3	0	4	0	8	67	0	75	0	0	0	0	0	44	3	0	0	47	126	0
17:30	0	0	2	0	2	0	14	47	0	61	0	0	0	0	0	37	2	0	0	39	102	0
17:45	1	0	1	0	2	0	18	39	0	57	0	0	0	0	0	37	2	0	0	39	98	0
Total	2	0	8	0	10	0	53	212	0	265	0	0	0	0	0	176	10	0	0	186	461	0
Grand Total	14	0	37	0	51	0	185	607	0	792	0	0	0	0	0	674	30	0	0	704	1547	0
Apprch %	27.5%	0.0%	72.5%	0.0%		0.0%	23.4%	76.6%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	95.7%	4.3%	0.0%	0.0%			
Total %	0.9%	0.0%	2.4%	0.0%	3.3%	0.0%	12.0%	39.2%	0.0%	51.2%	0.0%	0.0%	0.0%	0.0%	0.0%	43.6%	1.9%	0.0%	0.0%	45.5%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-096 Old Davis Road-Hutchison Drive.ppd

Date : 10/16/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Old Davis Road Southbound					Hutchison Drive Westbound					Old Davis Road Northbound					Hutchison Drive Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	13	7	0	20	0	0	0	0	0	3	9	4	0	16	6	0	1	0	7	43	0
07:15	0	19	9	0	28	0	0	0	0	0	2	9	4	0	15	7	0	0	0	7	50	0
07:30	2	27	9	0	38	1	1	0	0	2	4	23	2	0	29	9	0	2	0	11	80	0
07:45	0	55	9	0	64	3	0	0	0	3	5	16	7	0	28	4	0	1	0	5	100	0
<b>Total</b>	<b>2</b>	<b>114</b>	<b>34</b>	<b>0</b>	<b>150</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>14</b>	<b>57</b>	<b>17</b>	<b>0</b>	<b>88</b>	<b>26</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>30</b>	<b>273</b>	<b>0</b>
08:00	1	40	7	0	48	0	0	0	0	0	2	22	5	0	29	7	0	1	0	8	85	0
08:15	0	35	8	0	43	0	0	0	0	0	5	27	9	0	41	7	0	3	0	10	94	0
08:30	0	77	11	0	88	2	0	2	0	4	4	26	11	0	41	6	0	5	0	11	144	0
08:45	4	79	12	0	95	4	0	2	0	6	2	31	7	0	40	5	0	7	0	12	153	0
<b>Total</b>	<b>5</b>	<b>231</b>	<b>38</b>	<b>0</b>	<b>274</b>	<b>6</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>10</b>	<b>13</b>	<b>106</b>	<b>32</b>	<b>0</b>	<b>151</b>	<b>25</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>41</b>	<b>476</b>	<b>0</b>
16:00	2	34	5	0	41	6	0	2	0	8	4	50	4	0	58	11	1	3	0	15	122	0
16:15	7	23	6	0	36	4	0	1	0	5	3	75	5	0	83	11	0	1	0	12	136	0
16:30	1	36	9	0	46	4	2	3	0	9	2	75	3	0	80	12	0	3	0	15	150	0
16:45	2	35	6	1	44	5	0	2	0	7	1	69	0	0	70	3	0	2	0	5	126	1
<b>Total</b>	<b>12</b>	<b>128</b>	<b>26</b>	<b>1</b>	<b>167</b>	<b>19</b>	<b>2</b>	<b>8</b>	<b>0</b>	<b>29</b>	<b>10</b>	<b>269</b>	<b>12</b>	<b>0</b>	<b>291</b>	<b>37</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>47</b>	<b>534</b>	<b>1</b>
17:00	3	36	9	0	48	11	1	3	0	15	1	85	1	0	87	12	0	5	0	17	167	0
17:15	0	35	11	0	46	3	0	2	0	5	1	100	2	0	103	5	0	6	0	11	165	0
17:30	2	37	6	0	45	4	1	3	0	8	0	77	1	0	78	6	0	6	0	12	143	0
17:45	6	26	16	0	48	1	0	4	0	5	4	73	3	1	81	8	1	2	0	11	145	1
<b>Total</b>	<b>11</b>	<b>134</b>	<b>42</b>	<b>0</b>	<b>187</b>	<b>19</b>	<b>2</b>	<b>12</b>	<b>0</b>	<b>33</b>	<b>6</b>	<b>335</b>	<b>7</b>	<b>1</b>	<b>349</b>	<b>31</b>	<b>1</b>	<b>19</b>	<b>0</b>	<b>51</b>	<b>620</b>	<b>1</b>
<b>Grand Total</b>	<b>30</b>	<b>607</b>	<b>140</b>	<b>1</b>	<b>778</b>	<b>48</b>	<b>5</b>	<b>24</b>	<b>0</b>	<b>77</b>	<b>43</b>	<b>767</b>	<b>68</b>	<b>1</b>	<b>879</b>	<b>119</b>	<b>2</b>	<b>48</b>	<b>0</b>	<b>169</b>	<b>1903</b>	<b>2</b>
Apprch %	3.9%	78.0%	18.0%	0.1%		62.3%	6.5%	31.2%	0.0%		4.9%	87.3%	7.7%	0.1%		70.4%	1.2%	28.4%	0.0%			
Total %	1.6%	31.9%	7.4%	0.1%	40.9%	2.5%	0.3%	1.3%	0.0%	4.0%	2.3%	40.3%	3.6%	0.1%	46.2%	6.3%	0.1%	2.5%	0.0%	8.9%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-097 Hyatt Place Main Driveway-Old Davis Road.pp  
 Date : 10/22/2014

## Unshifted Count = All Vehicles

START TIME	Hyatt Place Main Driveway Southbound					Old Davis Road Westbound					Northbound					Old Davis Road Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	1	15	0	0	16	26	0
07:15	3	0	1	0	4	0	15	1	0	16	0	0	0	0	0	5	26	0	0	31	51	0
07:30	1	0	2	0	3	0	20	1	0	21	0	0	0	0	0	6	25	0	0	31	55	0
07:45	5	0	2	0	7	0	39	1	0	40	0	0	0	0	0	4	36	0	0	40	87	0
<b>Total</b>	9	0	5	0	14	0	84	3	0	87	0	0	0	0	0	16	102	0	0	118	219	0
08:00	1	0	2	0	3	0	32	0	0	32	0	0	0	0	0	1	25	0	0	26	61	0
08:15	0	0	2	0	2	0	62	0	0	62	0	0	0	0	0	1	33	0	0	34	98	0
08:30	1	0	0	0	1	0	40	1	0	41	0	0	0	0	0	3	45	0	0	48	90	0
08:45	2	0	5	0	7	0	55	2	0	57	0	0	0	0	0	1	45	0	0	46	110	0
<b>Total</b>	4	0	9	0	13	0	189	3	0	192	0	0	0	0	0	6	148	0	0	154	359	0
16:00	1	0	9	0	10	0	41	2	0	43	0	0	0	0	0	1	63	0	0	64	117	0
16:15	4	0	8	0	12	0	26	1	1	28	0	0	0	0	0	2	44	0	0	46	86	1
16:30	1	0	3	0	4	0	34	0	1	35	0	0	0	0	0	2	49	0	0	51	90	1
16:45	1	0	0	0	1	0	40	3	0	43	0	0	0	0	0	2	58	0	0	60	104	0
<b>Total</b>	7	0	20	0	27	0	141	6	2	149	0	0	0	0	0	7	214	0	0	221	397	2
17:00	2	0	5	0	7	0	65	3	0	68	0	0	0	0	0	2	73	0	0	75	150	0
17:15	4	0	3	0	7	0	45	1	1	47	0	0	0	0	0	3	64	0	0	67	121	1
17:30	1	0	0	0	1	0	30	2	0	32	0	0	0	0	0	1	57	0	0	58	91	0
17:45	0	0	1	0	1	0	37	2	1	40	0	0	0	0	0	2	50	0	0	52	93	1
<b>Total</b>	7	0	9	0	16	0	177	8	2	187	0	0	0	0	0	8	244	0	0	252	455	2
<b>Grand Total</b>	27	0	43	0	70	0	591	20	4	615	0	0	0	0	0	37	708	0	0	745	1430	4
Apprch %	38.6%	0.0%	61.4%	0.0%		0.0%	96.1%	3.3%	0.7%		0.0%	0.0%	0.0%	0.0%		5.0%	95.0%	0.0%	0.0%			
Total %	1.9%	0.0%	3.0%	0.0%	4.9%	0.0%	41.3%	1.4%	0.3%	43.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	49.5%	0.0%	0.0%	52.1%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-098 Alumni Lane-Old Davis Road.ppd  
 Date : 10/22/2014

## Unshifted Count = All Vehicles

START TIME	Alumni Lane Southbound					Old Davis Road Westbound					Alumni Lane Northbound					Old Davis Road Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	0	8	1	0	9	0	0	0	0	0	6	20	0	0	26	35	0
07:15	0	0	0	0	0	3	11	3	0	17	0	0	0	0	0	2	30	4	2	38	55	2
07:30	0	0	0	0	0	1	15	2	0	18	0	0	0	0	0	3	31	9	0	43	61	0
07:45	0	0	0	0	0	5	37	2	0	44	0	0	0	0	0	7	41	18	0	66	110	0
<b>Total</b>	0	0	0	0	0	9	71	8	0	88	0	0	0	0	0	18	122	31	2	173	261	2
08:00	0	0	0	0	0	14	22	0	0	36	1	0	0	0	1	4	27	20	0	51	88	0
08:15	0	0	0	0	0	24	37	5	0	66	1	1	0	0	2	6	37	8	1	52	120	1
08:30	0	0	0	0	0	12	29	2	1	44	0	1	1	0	2	6	50	13	1	70	116	2
08:45	0	0	0	0	0	16	38	4	0	58	5	1	0	0	6	4	43	12	0	59	123	0
<b>Total</b>	0	0	0	0	0	66	126	11	1	204	7	3	1	0	11	20	157	53	2	232	447	3
16:00	0	0	0	0	0	3	47	2	1	53	15	0	8	0	23	3	57	1	0	61	137	1
16:15	0	0	0	0	0	2	28	1	0	31	5	0	3	0	8	4	44	2	3	53	92	3
16:30	0	0	0	0	0	1	35	1	0	37	4	0	7	0	11	6	42	3	3	54	102	3
16:45	0	0	0	0	0	4	34	4	0	42	5	1	15	0	21	0	45	2	0	47	110	0
<b>Total</b>	0	0	0	0	0	10	144	8	1	163	29	1	33	0	63	13	188	8	6	215	441	7
17:00	0	0	0	0	0	2	65	4	0	71	23	5	17	0	45	6	60	0	0	66	182	0
17:15	0	0	0	0	0	1	42	5	1	49	5	2	12	0	19	3	54	3	0	60	128	1
17:30	0	0	0	0	0	0	30	1	0	31	4	0	5	0	9	2	53	3	0	58	98	0
17:45	0	0	0	0	0	1	35	4	0	40	2	1	6	0	9	6	48	0	0	54	103	0
<b>Total</b>	0	0	0	0	0	4	172	14	1	191	34	8	40	0	82	17	215	6	0	238	511	1
<b>Grand Total</b>	0	0	0	0	0	89	513	41	3	646	70	12	74	0	156	68	682	98	10	858	1660	13
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	13.8%	79.4%	6.3%	0.5%	38.9%	44.9%	7.7%	47.4%	0.0%	9.4%	7.9%	79.5%	11.4%	1.2%	51.7%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	5.4%	30.9%	2.5%	0.2%	38.9%	4.2%	0.7%	4.5%	0.0%	9.4%	4.1%	41.1%	5.9%	0.6%	51.7%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-099 Mrak Hall Drive-Old Davis Road.ppd

Date : 10/22/2014

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Mrak Hall Drive Southbound					Old Davis Road Westbound					Northbound					Old Davis Road Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	3	0	5	0	8	0	5	2	0	7	0	0	0	0	0	16	22	0	0	38	53	0
07:15	4	0	9	0	13	0	12	2	0	14	0	0	0	0	0	9	34	0	0	43	70	0
07:30	1	0	7	0	8	0	14	0	0	14	0	0	0	0	0	8	42	0	0	50	72	0
07:45	6	0	12	0	18	0	35	3	0	38	0	0	0	0	0	17	60	0	0	77	133	0
Total	14	0	33	0	47	0	66	7	0	73	0	0	0	0	0	50	158	0	0	208	328	0
08:00	5	0	6	0	11	0	21	2	0	23	0	0	0	0	0	12	46	0	0	58	92	0
08:15	4	0	13	0	17	0	35	4	0	39	0	0	0	0	0	14	48	0	0	62	118	0
08:30	8	0	14	0	22	0	27	3	0	30	0	0	0	0	0	20	63	0	0	83	135	0
08:45	7	0	12	0	19	0	40	3	0	43	0	0	0	0	0	18	52	0	0	70	132	0
Total	24	0	45	0	69	0	123	12	0	135	0	0	0	0	0	64	209	0	0	273	477	0
16:00	4	0	17	0	21	0	60	1	1	62	0	0	0	0	0	15	56	0	0	71	154	1
16:15	5	0	10	0	15	0	33	3	0	36	0	0	0	0	0	5	48	0	0	53	104	0
16:30	6	0	18	0	24	0	34	8	0	42	0	0	0	0	0	13	48	0	0	61	127	0
16:45	6	0	24	0	30	0	31	7	0	38	0	0	0	0	0	16	41	0	0	57	125	0
Total	21	0	69	0	90	0	158	19	1	178	0	0	0	0	0	49	193	0	0	242	510	1
17:00	11	0	40	0	51	0	85	4	0	89	0	0	0	0	0	19	56	0	0	75	215	0
17:15	5	0	24	0	29	0	41	6	0	47	0	0	0	0	0	7	58	0	0	65	141	0
17:30	9	0	13	0	22	0	28	4	0	32	0	0	0	0	0	12	47	0	0	59	113	0
17:45	12	0	9	0	21	0	36	3	0	39	0	0	0	0	0	10	41	0	0	51	111	0
Total	37	0	86	0	123	0	190	17	0	207	0	0	0	0	0	48	202	0	0	250	580	0
Grand Total	96	0	233	0	329	0	537	55	1	593	0	0	0	0	0	211	762	0	0	973	1895	1
Apprch %	29.2%	0.0%	70.8%	0.0%		0.0%	90.6%	9.3%	0.2%		0.0%	0.0%	0.0%	0.0%	0.0%	21.7%	78.3%	0.0%	0.0%			
Total %	5.1%	0.0%	12.3%	0.0%	17.4%	0.0%	28.3%	2.9%	0.1%	31.3%	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	40.2%	0.0%	0.0%	51.3%	100.0%	



# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-100 Hilgard Lane-Old Davis Road.ppd  
 Date : 10/22/2014

## Unshifted Count = All Vehicles

START TIME	Southbound					Old Davis Road Westbound					Hilgard Lane Northbound					Old Davis Road Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	1	9	0	0	10	3	0	0	0	3	0	39	14	0	53	66	0
07:15	0	0	0	0	0	2	19	0	0	21	2	0	0	0	2	0	42	16	0	58	81	0
07:30	0	0	0	0	0	2	18	0	0	20	0	0	1	0	1	0	48	39	0	87	108	0
07:45	0	0	0	0	0	1	43	0	0	44	3	0	1	0	4	0	78	66	0	144	192	0
<b>Total</b>	0	0	0	0	0	6	89	0	0	95	8	0	2	0	10	0	207	135	0	342	447	0
08:00	0	0	0	0	0	6	23	0	0	29	3	0	2	0	5	0	56	72	0	128	162	0
08:15	0	0	0	0	0	7	40	0	0	47	3	0	1	0	4	0	62	67	2	131	182	2
08:30	0	0	0	0	0	6	36	0	0	42	2	0	0	0	2	0	82	69	0	151	195	0
08:45	0	0	0	0	0	9	43	0	0	52	2	0	1	0	3	0	70	54	0	124	179	0
<b>Total</b>	0	0	0	0	0	28	142	0	0	170	10	0	4	0	14	0	270	262	2	534	718	2
16:00	0	0	0	0	0	1	74	0	0	75	37	0	13	0	50	0	59	9	0	68	193	0
16:15	0	0	0	0	0	2	42	0	0	44	23	0	10	0	33	0	48	8	1	57	134	1
16:30	0	0	0	0	0	0	52	0	1	53	30	0	6	0	36	0	49	6	0	55	144	1
16:45	0	0	0	0	0	0	54	0	0	54	46	0	9	0	55	0	53	13	0	66	175	0
<b>Total</b>	0	0	0	0	0	3	222	0	1	226	136	0	38	0	174	0	209	36	1	246	646	2
17:00	0	0	0	0	0	1	122	0	0	123	85	0	10	0	95	0	62	3	1	66	284	1
17:15	0	0	0	0	0	1	64	0	0	65	81	0	11	0	92	0	51	1	0	52	209	0
17:30	0	0	0	0	0	1	41	0	0	42	43	0	6	0	49	0	55	6	0	61	152	0
17:45	0	0	0	0	0	2	41	0	0	43	38	0	4	0	42	0	45	2	0	47	132	0
<b>Total</b>	0	0	0	0	0	5	268	0	0	273	247	0	31	0	278	0	213	12	1	226	777	1
<b>Grand Total</b>	0	0	0	0	0	42	721	0	1	764	401	0	75	0	476	0	899	445	4	1348	2588	5
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	94.4%	0.0%	0.1%	29.5%	84.2%	0.0%	15.8%	0.0%	18.4%	0.0%	66.7%	33.0%	0.3%	52.1%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	27.9%	0.0%	0.0%	29.5%	15.5%	0.0%	2.9%	0.0%	18.4%	0.0%	34.7%	17.2%	0.2%	52.1%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-101 California Avenue-Old Davis Road.ppd

Date : 10/22/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	California Avenue Southbound					Old Davis Road Westbound					Northbound					Old Davis Road Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	12	0	11	0	23	0	4	8	1	13	0	0	0	0	0	42	46	0	0	88	124	1
07:15	13	0	4	0	17	0	12	8	0	20	0	0	0	0	0	65	48	0	0	113	150	0
07:30	10	0	16	1	27	0	7	13	0	20	0	0	0	0	0	68	76	0	1	145	192	2
07:45	25	0	11	0	36	0	14	28	1	43	0	0	0	0	0	97	123	0	0	220	299	1
<b>Total</b>	<b>60</b>	<b>0</b>	<b>42</b>	<b>1</b>	<b>103</b>	<b>0</b>	<b>37</b>	<b>57</b>	<b>2</b>	<b>96</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>272</b>	<b>293</b>	<b>0</b>	<b>1</b>	<b>566</b>	<b>765</b>	<b>4</b>
08:00	29	0	24	0	53	0	8	21	0	29	0	0	0	0	0	71	95	0	1	167	249	1
08:15	21	0	15	1	37	0	9	31	0	40	0	0	0	0	0	63	113	0	1	177	254	2
08:30	39	0	8	0	47	0	13	27	0	40	0	0	0	0	0	89	107	0	0	196	283	0
08:45	33	0	19	0	52	0	13	29	0	42	0	0	0	0	0	79	92	0	2	173	267	2
<b>Total</b>	<b>122</b>	<b>0</b>	<b>66</b>	<b>1</b>	<b>189</b>	<b>0</b>	<b>43</b>	<b>108</b>	<b>0</b>	<b>151</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>302</b>	<b>407</b>	<b>0</b>	<b>4</b>	<b>713</b>	<b>1053</b>	<b>5</b>
16:00	48	0	49	0	97	0	88	25	0	113	0	0	0	0	0	20	17	0	0	37	247	0
16:15	30	0	50	0	80	0	51	21	0	72	0	0	0	0	0	23	26	0	0	49	201	0
16:30	34	0	57	0	91	0	59	21	0	80	0	0	0	0	0	27	24	0	0	51	222	0
16:45	31	0	48	0	79	0	77	30	0	107	0	0	0	0	0	22	37	0	0	59	245	0
<b>Total</b>	<b>143</b>	<b>0</b>	<b>204</b>	<b>0</b>	<b>347</b>	<b>0</b>	<b>275</b>	<b>97</b>	<b>0</b>	<b>372</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>92</b>	<b>104</b>	<b>0</b>	<b>0</b>	<b>196</b>	<b>915</b>	<b>0</b>
17:00	40	0	88	0	128	0	148	51	1	200	0	0	0	0	0	10	20	0	0	30	358	1
17:15	35	0	64	0	99	0	114	27	1	142	0	0	0	0	0	19	21	0	0	40	281	1
17:30	31	0	33	0	64	0	65	21	1	87	0	0	0	0	0	18	24	0	0	42	193	1
17:45	30	0	31	0	61	0	53	25	0	78	0	0	0	0	0	16	22	0	1	39	178	1
<b>Total</b>	<b>136</b>	<b>0</b>	<b>216</b>	<b>0</b>	<b>352</b>	<b>0</b>	<b>380</b>	<b>124</b>	<b>3</b>	<b>507</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>63</b>	<b>87</b>	<b>0</b>	<b>1</b>	<b>151</b>	<b>1010</b>	<b>4</b>
<b>Grand Total</b>	<b>461</b>	<b>0</b>	<b>528</b>	<b>2</b>	<b>991</b>	<b>0</b>	<b>735</b>	<b>386</b>	<b>5</b>	<b>1126</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>729</b>	<b>891</b>	<b>0</b>	<b>6</b>	<b>1626</b>	<b>3743</b>	<b>13</b>
Apprch %	46.5%	0.0%	53.3%	0.2%		0.0%	65.3%	34.3%	0.4%		0.0%	0.0%	0.0%	0.0%		44.8%	54.8%	0.0%	0.4%			
Total %	12.3%	0.0%	14.1%	0.1%	26.5%	0.0%	19.6%	10.3%	0.1%	30.1%	0.0%	0.0%	0.0%	0.0%	0.0%	19.5%	23.8%	0.0%	0.2%	43.4%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-102 Old Davis Road-I-80 WB Ramps.ppd  
 Date : 10/22/2014

## Unshifted Count = All Vehicles

START TIME	Old Davis Road Southbound					I-80 WB Ramps Westbound					Old Davis Road Northbound					I-80 WB On-Ramp Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	8	5	0	13	6	0	47	0	53	3	30	0	0	33	0	0	0	0	0	99	0
07:15	0	14	6	0	20	9	0	79	0	88	6	44	0	0	50	0	0	0	0	0	158	0
07:30	0	10	8	0	18	8	1	78	0	87	5	69	0	0	74	0	0	0	0	0	179	0
07:45	0	24	11	0	35	12	0	129	0	141	4	87	0	0	91	0	0	0	0	0	267	0
Total	0	56	30	0	86	35	1	333	0	369	18	230	0	0	248	0	0	0	0	0	703	0
08:00	0	22	6	0	28	6	0	81	0	87	5	75	0	0	80	0	0	0	0	0	195	0
08:15	0	21	8	0	29	8	0	104	0	112	7	77	0	0	84	0	0	0	0	0	225	0
08:30	0	8	8	0	16	7	2	120	0	129	9	86	0	0	95	0	0	0	0	0	240	0
08:45	0	26	9	0	35	3	1	105	0	109	2	64	0	0	66	0	0	0	0	0	210	0
Total	0	77	31	0	108	24	3	410	0	437	23	302	0	0	325	0	0	0	0	0	870	0
16:00	0	93	55	1	149	1	1	23	0	25	18	14	0	0	32	0	0	0	0	0	206	1
16:15	0	54	35	0	89	3	1	27	0	31	10	20	0	0	30	0	0	0	0	0	150	0
16:30	0	63	60	0	123	2	1	35	0	38	13	13	0	0	26	0	0	0	0	0	187	0
16:45	0	59	51	0	110	0	1	33	0	34	17	29	0	0	46	0	0	0	0	0	190	0
Total	0	269	201	1	471	6	4	118	0	128	58	76	0	0	134	0	0	0	0	0	733	1
17:00	0	112	122	0	234	1	1	22	0	24	21	11	0	0	32	0	0	0	0	0	290	0
17:15	0	91	100	0	191	3	0	16	0	19	10	16	0	0	26	0	0	0	0	0	236	0
17:30	0	56	43	0	99	3	1	18	0	22	11	15	0	0	26	0	0	0	0	0	147	0
17:45	0	43	35	0	78	1	0	30	0	31	7	17	0	0	24	0	0	0	0	0	133	0
Total	0	302	300	0	602	8	2	86	0	96	49	59	0	0	108	0	0	0	0	0	806	0
Grand Total	0	704	562	1	1267	73	10	947	0	1030	148	667	0	0	815	0	0	0	0	0	3112	1
Apprch %	0.0%	55.6%	44.4%	0.1%		7.1%	1.0%	91.9%	0.0%		18.2%	81.8%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%			
Total %	0.0%	22.6%	18.1%	0.0%	40.7%	2.3%	0.3%	30.4%	0.0%	33.1%	4.8%	21.4%	0.0%	0.0%	26.2%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-103 Old Davis Road-I-80 EB Ramps.ppd

Date : 10/22/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Old Davis Road Southbound					I-80 EB On-Ramp Westbound					Old Davis Road Northbound					I-80 EB Off-Ramp Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	5	11	0	0	16	0	0	0	0	0	0	8	0	0	8	25	1	10	0	36	60	0
07:15	8	13	0	0	21	0	0	0	0	0	0	13	2	0	15	37	0	6	0	43	79	0
07:30	9	10	0	1	20	0	0	0	0	0	0	10	0	0	10	61	1	7	0	69	99	1
07:45	15	19	0	0	34	0	0	0	0	0	0	13	2	1	16	79	0	11	0	90	140	1
<b>Total</b>	<b>37</b>	<b>53</b>	<b>0</b>	<b>1</b>	<b>91</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>44</b>	<b>4</b>	<b>1</b>	<b>49</b>	<b>202</b>	<b>2</b>	<b>34</b>	<b>0</b>	<b>238</b>	<b>378</b>	<b>2</b>
08:00	8	20	0	0	28	0	0	0	0	0	0	7	2	0	9	72	0	12	0	84	121	0
08:15	9	18	0	0	27	0	0	0	0	0	0	16	3	0	19	68	0	14	0	82	128	0
08:30	7	9	0	0	16	0	0	0	0	0	0	17	4	0	21	78	0	13	0	91	128	0
08:45	19	10	0	0	29	0	0	0	0	0	0	7	1	0	8	61	0	11	0	72	109	0
<b>Total</b>	<b>43</b>	<b>57</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>47</b>	<b>10</b>	<b>0</b>	<b>57</b>	<b>279</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>329</b>	<b>486</b>	<b>0</b>
16:00	86	2	0	0	88	0	0	0	0	0	0	17	3	0	20	14	1	6	0	21	129	0
16:15	53	5	0	0	58	0	0	0	0	0	0	8	7	0	15	22	0	6	0	28	101	0
16:30	60	3	0	0	63	0	0	0	0	0	0	18	8	0	26	9	0	4	0	13	102	0
16:45	55	5	0	0	60	0	0	0	0	0	0	17	11	0	28	29	0	7	0	36	124	0
<b>Total</b>	<b>254</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>269</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>29</b>	<b>0</b>	<b>89</b>	<b>74</b>	<b>1</b>	<b>23</b>	<b>0</b>	<b>98</b>	<b>456</b>	<b>0</b>
17:00	100	12	0	0	112	0	0	0	0	0	0	20	9	0	29	10	1	6	0	17	158	0
17:15	87	10	0	1	98	0	0	0	0	0	0	15	8	0	23	12	0	6	0	18	139	1
17:30	56	4	0	1	61	0	0	0	0	0	0	11	6	0	17	14	0	5	0	19	97	1
17:45	36	5	0	0	41	0	0	0	0	0	0	5	4	0	9	18	0	2	0	20	70	0
<b>Total</b>	<b>279</b>	<b>31</b>	<b>0</b>	<b>2</b>	<b>312</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>51</b>	<b>27</b>	<b>0</b>	<b>78</b>	<b>54</b>	<b>1</b>	<b>19</b>	<b>0</b>	<b>74</b>	<b>464</b>	<b>2</b>
<b>Grand Total</b>	<b>613</b>	<b>156</b>	<b>0</b>	<b>3</b>	<b>772</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>202</b>	<b>70</b>	<b>1</b>	<b>273</b>	<b>609</b>	<b>4</b>	<b>126</b>	<b>0</b>	<b>739</b>	<b>1784</b>	<b>4</b>
Apprch %	79.4%	20.2%	0.0%	0.4%		0.0%	0.0%	0.0%	0.0%		0.0%	74.0%	25.6%	0.4%		82.4%	0.5%	17.1%	0.0%			
Total %	34.4%	8.7%	0.0%	0.2%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.3%	3.9%	0.1%	15.3%	34.1%	0.2%	7.1%	0.0%	41.4%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-104 California Avenue-La Rue Road.ppd

Date : 10/22/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Crocker Lane Southbound					La Rue Road Westbound					California Avenue Northbound					La Rue Road Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	3	6	0	9	6	14	0	0	20	38	1	4	0	43	0	11	11	0	22	94	0
07:15	0	4	4	0	8	7	26	1	0	34	64	7	1	0	72	3	4	12	0	19	133	0
07:30	0	3	3	0	6	3	9	0	0	12	65	3	3	0	71	4	3	17	0	24	113	0
07:45	0	2	4	0	6	3	6	0	0	9	103	7	3	0	113	1	10	35	0	46	174	0
<b>Total</b>	0	12	17	0	29	19	55	1	0	75	270	18	11	0	299	8	28	75	0	111	514	0
08:00	0	0	4	0	4	1	9	0	0	10	81	7	3	0	91	0	8	46	0	54	159	0
08:15	0	0	8	0	8	4	6	0	0	10	95	2	3	0	100	1	5	39	0	45	163	0
08:30	0	1	2	0	3	1	9	0	0	10	91	2	4	0	97	2	9	33	0	44	154	0
08:45	0	3	3	0	6	2	9	0	0	11	100	9	3	0	112	1	9	50	0	60	189	0
<b>Total</b>	0	4	17	0	21	8	33	0	0	41	367	20	13	0	400	4	31	168	0	203	665	0
16:00	0	3	7	0	10	2	2	1	0	5	45	3	2	0	50	3	2	108	1	114	179	1
16:15	0	4	2	0	6	1	3	1	0	5	34	3	1	0	38	2	2	55	0	59	108	0
16:30	0	5	5	0	10	1	1	0	0	2	41	3	1	1	46	5	2	81	1	89	147	2
16:45	0	3	2	0	5	0	0	0	0	0	45	5	0	0	50	0	0	67	0	67	122	0
<b>Total</b>	0	15	16	0	31	4	6	2	0	12	165	14	4	1	184	10	6	311	2	329	556	3
17:00	0	8	3	0	11	1	2	0	0	3	55	5	1	1	62	6	0	119	0	125	201	1
17:15	0	3	1	0	4	0	1	0	0	1	38	1	0	0	39	7	0	90	0	97	141	0
17:30	0	8	7	0	15	1	0	0	0	1	27	3	0	0	30	3	2	48	0	53	99	0
17:45	1	3	4	0	8	1	0	1	0	2	44	3	0	0	47	2	1	48	0	51	108	0
<b>Total</b>	1	22	15	0	38	3	3	1	0	7	164	12	1	1	178	18	3	305	0	326	549	1
<b>Grand Total</b>	1	53	65	0	119	34	97	4	0	135	966	64	29	2	1061	40	68	859	2	969	2284	4
Apprch %	0.8%	44.5%	54.6%	0.0%		25.2%	71.9%	3.0%	0.0%		91.0%	6.0%	2.7%	0.2%		4.1%	7.0%	88.6%	0.2%			
Total %	0.0%	2.3%	2.8%	0.0%	5.2%	1.5%	4.2%	0.2%	0.0%	5.9%	42.3%	2.8%	1.3%	0.1%	46.5%	1.8%	3.0%	37.6%	0.1%	42.4%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-105 Bioletti Way-La Rue Road.ppd  
 Date : 10/22/2014

## Unshifted Count = All Vehicles

START TIME	Bioletti Way Southbound					La Rue Road Westbound					Northbound					La Rue Road Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	3	0	3	0	6	0	45	9	0	54	0	0	0	0	0	5	17	0	0	22	82	0
07:15	2	0	3	0	5	0	70	22	0	92	0	0	0	0	0	9	18	0	0	27	124	0
07:30	3	0	3	0	6	0	48	23	0	71	0	0	0	0	0	7	27	0	0	34	111	0
07:45	0	0	3	0	3	0	74	33	0	107	0	0	0	0	0	13	51	0	0	64	174	0
Total	8	0	12	0	20	0	237	87	0	324	0	0	0	0	0	34	113	0	0	147	491	0
08:00	6	0	5	0	11	0	56	25	0	81	0	0	0	0	0	9	54	0	0	63	155	0
08:15	10	0	5	0	15	0	76	23	0	99	0	0	0	0	0	12	39	0	0	51	165	0
08:30	2	0	3	0	5	0	69	18	0	87	0	0	0	0	0	13	48	0	0	61	153	0
08:45	12	0	6	0	18	0	82	21	0	103	0	0	0	0	0	12	50	0	0	62	183	0
Total	30	0	19	0	49	0	283	87	0	370	0	0	0	0	0	46	191	0	0	237	656	0
16:00	23	0	15	0	38	0	51	8	0	59	0	0	0	0	0	4	84	0	0	88	185	0
16:15	12	0	11	0	23	0	34	5	0	39	0	0	0	0	0	8	45	0	0	53	115	0
16:30	15	0	11	0	26	0	43	9	0	52	0	0	0	0	0	8	71	0	0	79	157	0
16:45	13	0	13	0	26	0	40	6	0	46	0	0	0	0	0	8	60	0	0	68	140	0
Total	63	0	50	0	113	0	168	28	0	196	0	0	0	0	0	28	260	0	0	288	597	0
17:00	34	0	26	0	60	0	65	5	0	70	0	0	0	0	0	4	66	0	0	70	200	0
17:15	20	0	19	0	39	0	48	4	0	52	0	0	0	0	0	4	68	0	0	72	163	0
17:30	10	0	11	0	21	0	32	5	0	37	0	0	0	0	0	8	40	0	0	48	106	0
17:45	9	0	15	0	24	0	40	8	0	48	0	0	0	0	0	4	38	0	0	42	114	0
Total	73	0	71	0	144	0	185	22	0	207	0	0	0	0	0	20	212	0	0	232	583	0
Grand Total	174	0	152	0	326	0	873	224	0	1097	0	0	0	0	0	128	776	0	0	904	2327	0
Apprch %	53.4%	0.0%	46.6%	0.0%		0.0%	79.6%	20.4%	0.0%		0.0%	0.0%	0.0%	0.0%		14.2%	85.8%	0.0%	0.0%			
Total %	7.5%	0.0%	6.5%	0.0%	14.0%	0.0%	37.5%	9.6%	0.0%	47.1%	0.0%	0.0%	0.0%	0.0%		5.5%	33.3%	0.0%	0.0%	38.8%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-106 Dairy Road-La Rue Road.ppd  
 Date : 10/22/2014

## Unshifted Count = All Vehicles

START TIME	Dairy Road Southbound					La Rue Road Westbound					Driveway Northbound					La Rue Road Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	4	0	1	0	5	0	28	6	0	34	1	0	0	0	1	6	23	0	0	29	69	0
07:15	3	0	1	0	4	0	50	16	0	66	2	0	2	0	4	1	34	0	0	35	109	0
07:30	6	0	2	0	8	1	32	6	0	39	4	0	0	0	4	2	55	1	0	58	109	0
07:45	6	0	1	0	7	0	51	15	1	67	2	1	1	0	4	8	78	0	0	86	164	1
<b>Total</b>	19	0	5	0	24	1	161	43	1	206	9	1	3	0	13	17	190	1	0	208	451	1
08:00	4	2	3	0	9	1	38	14	0	53	1	2	4	0	7	3	64	1	0	68	137	0
08:15	0	1	3	0	4	2	54	14	0	70	0	0	1	0	1	2	58	1	0	61	136	0
08:30	5	0	1	0	6	2	54	11	0	67	3	0	3	0	6	1	72	1	0	74	153	0
08:45	6	0	0	0	6	0	60	16	0	76	1	0	5	0	6	4	70	0	0	74	162	0
<b>Total</b>	15	3	7	0	25	5	206	55	0	266	5	2	13	0	20	10	264	3	0	277	588	0
16:00	7	0	4	0	11	2	86	3	0	91	1	1	1	0	3	0	55	0	0	55	160	0
16:15	12	0	4	0	16	0	39	9	0	48	0	1	0	0	1	1	43	0	0	44	109	0
16:30	7	0	2	0	9	0	61	6	0	67	0	2	0	0	2	2	67	0	0	69	147	0
16:45	7	0	1	0	8	0	59	9	0	68	1	0	0	0	1	1	49	1	0	51	128	0
<b>Total</b>	33	0	11	0	44	2	245	27	0	274	2	4	1	0	7	4	214	1	0	219	544	0
17:00	13	0	2	0	15	1	107	8	0	116	2	0	0	0	2	0	45	0	0	45	178	0
17:15	10	0	2	0	12	0	77	10	0	87	0	0	0	0	0	2	46	0	0	48	147	0
17:30	4	0	2	0	6	0	58	2	0	60	0	0	0	0	0	0	44	0	1	45	111	1
17:45	3	0	2	0	5	0	66	7	0	73	0	0	0	0	0	0	39	0	0	39	117	0
<b>Total</b>	30	0	8	0	38	1	308	27	0	336	2	0	0	0	2	2	174	0	1	177	553	1
<b>Grand Total</b>	97	3	31	0	131	9	920	152	1	1082	18	7	17	0	42	33	842	5	1	881	2136	2
Apprch %	74.0%	2.3%	23.7%	0.0%		0.8%	85.0%	14.0%	0.1%		42.9%	16.7%	40.5%	0.0%		3.7%	95.6%	0.6%	0.1%			
Total %	4.5%	0.1%	1.5%	0.0%	6.1%	0.4%	43.1%	7.1%	0.0%	50.7%	0.8%	0.3%	0.8%	0.0%	2.0%	1.5%	39.4%	0.2%	0.0%	41.2%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-107 Garrod Drive-La Rue Road.ppd  
 Date : 10/22/2014

## Unshifted Count = All Vehicles

START TIME	Southbound					La Rue Road Westbound					Garrod Drive Northbound					La Rue Road Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	16	12	0	0	28	4	0	17	0	21	0	14	19	0	33	82	0
07:15	0	0	0	0	0	21	32	0	0	53	4	0	8	0	12	0	32	34	1	67	132	1
07:30	0	0	0	0	0	18	18	0	0	36	3	0	14	0	17	0	47	30	1	78	131	1
07:45	0	0	0	0	0	33	19	0	0	52	7	0	10	0	17	0	79	59	1	139	208	1
<b>Total</b>	0	0	0	0	0	88	81	0	0	169	18	0	49	0	67	0	172	142	3	317	553	3
08:00	0	0	0	0	0	17	25	0	0	42	12	0	18	0	30	0	53	26	1	80	152	1
08:15	0	0	0	0	0	22	31	0	0	53	10	0	9	0	19	0	55	19	0	74	146	0
08:30	0	0	0	0	0	22	34	0	0	56	6	0	13	0	19	0	62	20	0	82	157	0
08:45	0	0	0	0	0	25	36	0	0	61	6	0	12	0	18	0	63	24	1	88	167	1
<b>Total</b>	0	0	0	0	0	86	126	0	0	212	34	0	52	0	86	0	233	89	2	324	622	2
16:00	0	0	0	0	0	12	75	0	0	87	28	0	12	0	40	0	41	10	0	51	178	0
16:15	0	0	0	0	0	5	38	0	0	43	14	0	14	0	28	0	33	3	0	36	107	0
16:30	0	0	0	0	0	3	58	0	2	63	12	0	25	0	37	0	38	7	2	47	147	4
16:45	0	0	0	0	0	9	52	0	0	61	21	0	16	0	37	0	35	19	1	55	153	1
<b>Total</b>	0	0	0	0	0	29	223	0	2	254	75	0	67	0	142	0	147	39	3	189	585	5
17:00	0	0	0	0	0	7	106	0	0	113	27	0	15	0	42	0	28	15	0	43	198	0
17:15	0	0	0	0	0	8	70	0	0	78	21	0	15	0	36	0	36	11	0	47	161	0
17:30	0	0	0	0	0	5	60	0	0	65	34	0	13	0	47	0	29	4	0	33	145	0
17:45	0	0	0	0	0	5	62	0	0	67	16	0	11	0	27	0	27	11	1	39	133	1
<b>Total</b>	0	0	0	0	0	25	298	0	0	323	98	0	54	0	152	0	120	41	1	162	637	1
<b>Grand Total</b>	0	0	0	0	0	228	728	0	2	958	225	0	222	0	447	0	672	311	9	992	2397	11
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	23.8%	76.0%	0.0%	0.2%	40.0%	50.3%	0.0%	49.7%	0.0%	18.6%	0.0%	67.7%	31.4%	0.9%	41.4%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	9.5%	30.4%	0.0%	0.1%	40.0%	9.4%	0.0%	9.3%	0.0%	18.6%	0.0%	28.0%	13.0%	0.4%	41.4%	100.0%	



# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-108 La Rue Road-Hutchison Drive.ppd

Date : 10/28/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	La Rue Road Southbound					Hutchison Drive Westbound					La Rue Road Northbound					Hutchison Drive Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	17	21	11	0	49	1	11	7	0	19	6	8	5	0	19	14	34	22	0	70	157	0
07:15	22	11	13	0	46	1	8	9	0	18	7	10	5	0	22	16	63	37	0	116	202	0
07:30	26	33	23	0	82	0	16	12	0	28	11	7	3	0	21	23	58	39	0	120	251	0
07:45	42	47	35	0	124	2	14	7	0	23	11	16	2	0	29	36	84	68	0	188	364	0
<b>Total</b>	<b>107</b>	<b>112</b>	<b>82</b>	<b>0</b>	<b>301</b>	<b>4</b>	<b>49</b>	<b>35</b>	<b>0</b>	<b>88</b>	<b>35</b>	<b>41</b>	<b>15</b>	<b>0</b>	<b>91</b>	<b>89</b>	<b>239</b>	<b>166</b>	<b>0</b>	<b>494</b>	<b>974</b>	<b>0</b>
08:00	27	40	29	0	96	0	19	10	0	29	11	25	5	0	41	33	66	47	0	146	312	0
08:15	25	38	30	0	93	1	14	7	0	22	15	24	1	0	40	29	80	42	0	151	306	0
08:30	62	45	41	0	148	2	15	16	0	33	14	18	4	0	36	29	123	49	1	202	419	1
08:45	65	49	66	0	180	5	23	31	0	59	24	14	10	0	48	30	104	62	0	196	483	0
<b>Total</b>	<b>179</b>	<b>172</b>	<b>166</b>	<b>0</b>	<b>517</b>	<b>8</b>	<b>71</b>	<b>64</b>	<b>0</b>	<b>143</b>	<b>64</b>	<b>81</b>	<b>20</b>	<b>0</b>	<b>165</b>	<b>121</b>	<b>373</b>	<b>200</b>	<b>1</b>	<b>695</b>	<b>1520</b>	<b>1</b>
16:00	23	23	29	0	75	9	52	45	0	106	43	36	4	0	83	48	32	22	0	102	366	0
16:15	24	29	46	0	99	0	54	24	0	78	41	39	2	0	82	57	33	25	0	115	374	0
16:30	37	12	38	1	88	8	72	70	0	150	34	51	3	0	88	45	43	17	0	105	431	1
16:45	26	20	27	0	73	5	63	47	0	115	27	32	2	0	61	63	34	21	1	119	368	1
<b>Total</b>	<b>110</b>	<b>84</b>	<b>140</b>	<b>1</b>	<b>335</b>	<b>22</b>	<b>241</b>	<b>186</b>	<b>0</b>	<b>449</b>	<b>145</b>	<b>158</b>	<b>11</b>	<b>0</b>	<b>314</b>	<b>213</b>	<b>142</b>	<b>85</b>	<b>1</b>	<b>441</b>	<b>1539</b>	<b>2</b>
17:00	10	28	43	0	81	0	86	53	0	139	50	66	2	0	118	58	15	14	0	87	425	0
17:15	16	18	47	1	82	5	57	50	0	112	49	67	2	0	118	58	14	12	0	84	396	1
17:30	36	21	35	0	92	2	44	43	0	89	41	44	1	0	86	51	36	11	0	98	365	0
17:45	57	22	51	0	130	3	45	41	0	89	28	36	5	0	69	68	41	29	0	138	426	0
<b>Total</b>	<b>119</b>	<b>89</b>	<b>176</b>	<b>1</b>	<b>385</b>	<b>10</b>	<b>232</b>	<b>187</b>	<b>0</b>	<b>429</b>	<b>168</b>	<b>213</b>	<b>10</b>	<b>0</b>	<b>391</b>	<b>235</b>	<b>106</b>	<b>66</b>	<b>0</b>	<b>407</b>	<b>1612</b>	<b>1</b>
<b>Grand Total</b>	<b>515</b>	<b>457</b>	<b>564</b>	<b>2</b>	<b>1538</b>	<b>44</b>	<b>593</b>	<b>472</b>	<b>0</b>	<b>1109</b>	<b>412</b>	<b>493</b>	<b>56</b>	<b>0</b>	<b>961</b>	<b>658</b>	<b>860</b>	<b>517</b>	<b>2</b>	<b>2037</b>	<b>5645</b>	<b>4</b>
Apprch %	33.5%	29.7%	36.7%	0.1%		4.0%	53.5%	42.6%	0.0%		42.9%	51.3%	5.8%	0.0%		32.3%	42.2%	25.4%	0.1%			
Total %	9.1%	8.1%	10.0%	0.0%	27.2%	0.8%	10.5%	8.4%	0.0%	19.6%	7.3%	8.7%	1.0%	0.0%	17.0%	11.7%	15.2%	9.2%	0.0%	36.1%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-109 La Rue Road-Orchard Road.ppd

Date : 10/28/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	La Rue Road Southbound					Orchard Road Westbound					La Rue Road Northbound					Orchard Road Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	13	43	1	0	57	9	0	11	0	20	2	23	9	0	34	1	0	0	0	1	112	0
07:15	8	37	2	0	47	4	1	5	0	10	2	28	7	0	37	0	0	4	0	4	98	0
07:30	23	72	10	0	105	2	0	7	0	9	8	18	11	0	37	4	1	8	0	13	164	0
07:45	28	118	26	0	172	7	1	8	0	16	6	42	16	0	64	2	3	5	0	10	262	0
Total	72	270	39	0	381	22	2	31	0	55	18	111	43	0	172	7	4	17	0	28	636	0
08:00	20	74	13	0	107	4	1	6	0	11	5	42	22	0	69	6	4	7	0	17	204	0
08:15	15	90	14	0	119	5	0	6	0	11	7	37	14	0	58	4	2	6	0	12	200	0
08:30	28	125	19	0	172	4	0	11	0	15	4	40	15	0	59	7	2	5	0	14	260	0
08:45	36	165	18	0	219	13	1	16	0	30	5	54	22	0	81	15	3	6	0	24	354	0
Total	99	454	64	0	617	26	2	39	0	67	21	173	73	0	267	32	11	24	0	67	1018	0
16:00	7	62	12	0	81	14	0	23	0	37	5	116	14	0	135	9	0	3	0	12	265	0
16:15	13	83	10	0	106	13	1	13	0	27	2	100	9	0	111	11	1	5	0	17	261	0
16:30	9	66	6	0	81	12	4	20	0	36	6	158	11	1	176	20	2	6	0	28	321	1
16:45	7	58	15	0	80	10	3	21	0	34	9	121	13	0	143	16	1	10	0	27	284	0
Total	36	269	43	0	348	49	8	77	0	134	22	495	47	1	565	56	4	24	0	84	1131	1
17:00	10	52	14	0	76	17	1	22	0	40	3	149	16	0	168	26	1	6	0	33	317	0
17:15	9	79	15	0	103	8	1	14	0	23	9	167	13	0	189	22	1	5	0	28	343	0
17:30	5	68	15	0	88	17	0	14	0	31	7	127	10	0	144	26	2	5	0	33	296	0
17:45	20	115	6	0	141	13	0	15	0	28	1	136	9	0	146	18	1	7	0	26	341	0
Total	44	314	50	0	408	55	2	65	0	122	20	579	48	0	647	92	5	23	0	120	1297	0
Grand Total	251	1307	196	0	1754	152	14	212	0	378	81	1358	211	1	1651	187	24	88	0	299	4082	1
Apprch %	14.3%	74.5%	11.2%	0.0%		40.2%	3.7%	56.1%	0.0%		4.9%	82.3%	12.8%	0.1%		62.5%	8.0%	29.4%	0.0%			
Total %	6.1%	32.0%	4.8%	0.0%	43.0%	3.7%	0.3%	5.2%	0.0%	9.3%	2.0%	33.3%	5.2%	0.0%	40.4%	4.6%	0.6%	2.2%	0.0%	7.3%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-110 Extension Center Drive-Hutchison Drive.ppd

Date : 10/28/2014

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Extension Center Drive Southbound					Hutchison Drive Westbound					Northbound					Hutchison Drive Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	3	0	4	0	7	0	26	2	0	28	0	0	0	0	0	10	64	0	0	74	109	0
07:15	1	0	2	0	3	0	28	1	0	29	0	0	0	0	0	15	117	0	0	132	164	0
07:30	5	0	4	0	9	0	44	5	0	49	0	0	0	0	0	20	118	0	0	138	196	0
07:45	8	0	12	0	20	0	55	6	0	61	0	0	0	0	0	12	187	0	0	199	280	0
Total	17	0	22	0	39	0	153	14	0	167	0	0	0	0	0	57	486	0	0	543	749	0
08:00	3	0	2	0	5	0	50	7	0	57	0	0	0	0	0	25	145	0	0	170	232	0
08:15	10	0	4	0	14	0	55	6	0	61	0	0	0	0	0	25	130	0	0	155	230	0
08:30	7	0	7	0	14	0	62	8	0	70	0	0	0	0	0	29	203	0	0	232	316	0
08:45	9	0	11	0	20	0	99	11	0	110	0	0	0	0	0	24	183	0	0	207	337	0
Total	29	0	24	0	53	0	266	32	0	298	0	0	0	0	0	103	661	0	0	764	1115	0
16:00	18	0	26	0	44	0	116	9	0	125	0	0	0	0	0	7	84	0	1	92	261	1
16:15	9	0	20	0	29	0	130	7	0	137	0	0	0	0	0	4	107	0	0	111	277	0
16:30	7	0	15	0	22	0	136	4	0	140	0	0	0	0	0	9	103	0	0	112	274	0
16:45	11	0	22	0	33	0	113	5	0	118	0	0	0	0	0	3	101	0	0	104	255	0
Total	45	0	83	0	128	0	495	25	0	520	0	0	0	0	0	23	395	0	1	419	1067	1
17:00	5	0	20	0	25	0	171	10	1	182	0	0	0	0	0	9	80	0	0	89	296	1
17:15	4	0	16	0	20	0	148	3	0	151	0	0	0	0	0	10	84	0	0	94	265	0
17:30	2	0	16	0	18	0	106	17	0	123	0	0	0	0	0	14	95	0	0	109	250	0
17:45	10	0	22	0	32	0	116	8	0	124	0	0	0	0	0	6	119	0	0	125	281	0
Total	21	0	74	0	95	0	541	38	1	580	0	0	0	0	0	39	378	0	0	417	1092	1
Grand Total	112	0	203	0	315	0	1455	109	1	1565	0	0	0	0	0	222	1920	0	1	2143	4023	2
Apprch %	35.6%	0.0%	64.4%	0.0%		0.0%	93.0%	7.0%	0.1%		0.0%	0.0%	0.0%	0.0%	0.0%	10.4%	89.6%	0.0%	0.0%			
Total %	2.8%	0.0%	5.0%	0.0%	7.8%	0.0%	36.2%	2.7%	0.0%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	47.7%	0.0%	0.0%	53.3%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-111 Health Sciences Drive-Hutchison Drive.ppd  
 Date : 10/28/2014

## Unshifted Count = All Vehicles

START TIME	Southbound					Hutchison Drive Westbound					Health Sciences Drive Northbound					Hutchison Drive Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	10	19	0	0	29	3	0	2	0	5	0	71	23	0	94	128	0
07:15	0	0	0	0	0	9	19	0	0	28	7	0	3	0	10	0	129	36	0	165	203	0
07:30	0	0	0	0	0	13	36	0	0	49	8	0	7	0	15	0	128	46	0	174	238	0
07:45	0	0	0	0	0	15	53	0	0	68	4	0	8	0	12	0	193	94	0	287	367	0
<b>Total</b>	0	0	0	0	0	47	127	0	0	174	22	0	20	0	42	0	521	199	0	720	936	0
08:00	0	0	0	0	0	20	27	0	0	47	8	0	9	0	17	0	158	64	0	222	286	0
08:15	0	0	0	0	0	20	41	0	0	61	8	0	6	0	14	0	154	63	0	217	292	0
08:30	0	0	0	0	0	31	37	0	0	68	7	0	9	0	16	0	215	75	0	290	374	0
08:45	0	0	0	0	0	59	45	0	0	104	10	0	11	0	21	0	198	150	0	348	473	0
<b>Total</b>	0	0	0	0	0	130	150	0	0	280	33	0	35	0	68	0	725	352	0	1077	1425	0
16:00	0	0	0	0	0	10	128	0	0	138	41	0	21	0	62	0	75	10	0	85	285	0
16:15	0	0	0	0	0	19	126	0	0	145	47	0	29	0	76	0	82	13	0	95	316	0
16:30	0	0	0	0	0	15	139	0	0	154	57	0	26	0	83	0	84	38	0	122	359	0
16:45	0	0	0	0	0	16	122	0	0	138	40	0	25	0	65	0	82	30	0	112	315	0
<b>Total</b>	0	0	0	0	0	60	515	0	0	575	185	0	101	0	286	0	323	91	0	414	1275	0
17:00	0	0	0	0	0	16	165	0	0	181	90	0	35	0	125	0	55	26	0	81	387	0
17:15	0	0	0	0	0	19	145	0	0	164	78	0	30	0	108	0	63	24	0	87	359	0
17:30	0	0	0	0	0	14	112	0	0	126	58	0	28	0	86	0	80	12	0	92	304	0
17:45	0	0	0	0	0	19	117	0	0	136	47	0	28	0	75	0	102	34	0	136	347	0
<b>Total</b>	0	0	0	0	0	68	539	0	0	607	273	0	121	0	394	0	300	96	0	396	1397	0
<b>Grand Total</b>	0	0	0	0	0	305	1331	0	0	1636	513	0	277	0	790	0	1869	738	0	2607	5033	0
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	18.6%	81.4%	0.0%	0.0%	32.5%	64.9%	0.0%	35.1%	0.0%	15.7%	0.0%	71.7%	28.3%	0.0%	51.8%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	6.1%	26.4%	0.0%	0.0%	32.5%	10.2%	0.0%	5.5%	0.0%	15.7%	0.0%	37.1%	14.7%	0.0%	51.8%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-112 SR 113 NB Ramps-Hutchison Drive.ppd  
 Date : 10/28/2014

## Unshifted Count = All Vehicles

START TIME	SR 113 NB On-Ramp Southbound					Hutchison Drive Westbound					SR 113 NB Ramps Northbound					Hutchison Drive Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	0	17	3	0	20	23	0	49	0	72	0	48	0	0	48	140	0
07:15	0	0	0	0	0	0	19	7	0	26	21	0	86	0	107	0	74	3	0	77	210	0
07:30	0	0	0	0	0	0	35	9	0	44	29	0	102	0	131	0	77	1	0	78	253	0
07:45	0	0	0	0	0	0	50	5	0	55	49	0	140	0	189	0	148	5	0	153	397	0
<b>Total</b>	0	0	0	0	0	0	121	24	0	145	122	0	377	0	499	0	347	9	0	356	1000	0
08:00	0	0	0	0	0	0	20	17	0	37	41	0	108	0	149	0	106	6	0	112	298	0
08:15	0	0	0	0	0	0	36	10	0	46	24	0	108	0	132	0	115	1	0	116	294	0
08:30	0	0	0	0	0	0	35	10	0	45	26	0	152	0	178	0	144	5	0	149	372	0
08:45	0	0	0	0	0	0	33	19	0	52	25	0	149	0	174	0	196	2	1	199	425	1
<b>Total</b>	0	0	0	0	0	0	124	56	0	180	116	0	517	0	633	0	561	14	1	576	1389	1
16:00	0	0	0	0	0	0	92	73	0	165	19	0	37	0	56	0	51	27	0	78	299	0
16:15	0	0	0	0	0	0	100	74	0	174	30	0	36	0	66	0	64	38	0	102	342	0
16:30	0	0	0	0	0	0	101	90	0	191	23	0	64	0	87	0	55	21	0	76	354	0
16:45	0	0	0	0	0	0	103	61	0	164	26	0	57	0	83	0	53	24	0	77	324	0
<b>Total</b>	0	0	0	0	0	0	396	298	0	694	98	0	194	0	292	0	223	110	0	333	1319	0
17:00	0	0	0	0	0	0	126	128	0	254	26	0	37	0	63	0	47	36	0	83	400	0
17:15	0	0	0	0	0	0	113	112	0	225	41	0	35	0	76	0	54	32	0	86	387	0
17:30	0	0	0	0	0	0	89	84	0	173	21	0	30	0	51	0	60	13	0	73	297	0
17:45	0	0	0	0	0	0	87	70	0	157	21	0	47	0	68	0	91	18	0	109	334	0
<b>Total</b>	0	0	0	0	0	0	415	394	0	809	109	0	149	0	258	0	252	99	0	351	1418	0
<b>Grand Total</b>	0	0	0	0	0	0	1056	772	0	1828	445	0	1237	0	1682	0	1383	232	1	1616	5126	1
Apprch %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	57.8%	42.2%	0.0%	35.7%	26.5%	0.0%	73.5%	0.0%	32.8%	0.0%	85.6%	14.4%	0.1%	31.5%	100.0%	
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.6%	15.1%	0.0%	35.7%	8.7%	0.0%	24.1%	0.0%	32.8%	0.0%	27.0%	4.5%	0.0%	31.5%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-113 SR 113 SB Ramps-Hutchison Drive.ppd

Date : 10/28/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	SR 113 SB Ramps Southbound					Hutchison Drive Westbound					SR 113 SB On-Ramp Northbound					Hutchison Drive Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	31	0	9	0	40	0	35	8	0	43	0	0	0	0	0	0	16	10	0	26	109	0
07:15	57	0	10	0	67	0	30	12	0	42	0	0	0	0	0	0	20	23	0	43	152	0
07:30	63	0	16	0	79	0	47	15	0	62	0	0	0	0	0	0	18	17	0	35	176	0
07:45	119	0	41	0	160	0	82	19	0	101	0	0	0	0	0	0	33	24	0	57	318	0
<b>Total</b>	<b>270</b>	<b>0</b>	<b>76</b>	<b>0</b>	<b>346</b>	<b>0</b>	<b>194</b>	<b>54</b>	<b>0</b>	<b>248</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>87</b>	<b>74</b>	<b>0</b>	<b>161</b>	<b>755</b>	<b>0</b>
08:00	67	0	26	0	93	0	47	13	0	60	0	0	0	0	0	0	42	34	0	76	229	0
08:15	87	0	17	0	104	0	42	17	0	59	0	0	0	0	0	0	29	19	0	48	211	0
08:30	115	0	17	0	132	0	39	20	0	59	0	0	0	0	0	0	36	14	0	50	241	0
08:45	159	0	17	0	176	0	36	21	0	57	0	0	0	0	0	0	33	18	0	51	284	0
<b>Total</b>	<b>428</b>	<b>0</b>	<b>77</b>	<b>0</b>	<b>505</b>	<b>0</b>	<b>164</b>	<b>71</b>	<b>0</b>	<b>235</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>140</b>	<b>85</b>	<b>0</b>	<b>225</b>	<b>965</b>	<b>0</b>
16:00	20	0	8	0	28	0	50	63	1	114	0	0	0	0	0	0	59	25	0	84	226	1
16:15	24	0	16	0	40	0	61	61	0	122	0	0	0	0	0	0	80	33	0	113	275	0
16:30	32	0	9	0	41	0	44	81	0	125	0	0	0	0	0	0	45	35	0	80	246	0
16:45	23	0	11	0	34	0	45	80	2	127	0	0	0	0	0	0	52	25	0	77	238	2
<b>Total</b>	<b>99</b>	<b>0</b>	<b>44</b>	<b>0</b>	<b>143</b>	<b>0</b>	<b>200</b>	<b>285</b>	<b>3</b>	<b>488</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>236</b>	<b>118</b>	<b>0</b>	<b>354</b>	<b>985</b>	<b>3</b>
17:00	17	0	13	0	30	0	48	107	0	155	0	0	0	0	0	0	65	39	0	104	289	0
17:15	20	0	21	0	41	0	81	68	1	150	0	0	0	0	0	0	65	28	0	93	284	1
17:30	27	0	9	0	36	0	48	57	0	105	0	0	0	0	0	0	46	18	0	64	205	0
17:45	42	0	17	0	59	0	45	68	0	113	0	0	0	0	0	0	65	33	0	98	270	0
<b>Total</b>	<b>106</b>	<b>0</b>	<b>60</b>	<b>0</b>	<b>166</b>	<b>0</b>	<b>222</b>	<b>300</b>	<b>1</b>	<b>523</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>241</b>	<b>118</b>	<b>0</b>	<b>359</b>	<b>1048</b>	<b>1</b>
<b>Grand Total</b>	<b>903</b>	<b>0</b>	<b>257</b>	<b>0</b>	<b>1160</b>	<b>0</b>	<b>780</b>	<b>710</b>	<b>4</b>	<b>1494</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>704</b>	<b>395</b>	<b>0</b>	<b>1099</b>	<b>3753</b>	<b>4</b>
Apprch %	77.8%	0.0%	22.2%	0.0%		0.0%	52.2%	47.5%	0.3%		0.0%	0.0%	0.0%	0.0%		0.0%	64.1%	35.9%	0.0%			
Total %	24.1%	0.0%	6.8%	0.0%	30.9%	0.0%	20.8%	18.9%	0.1%	39.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	18.8%	10.5%	0.0%	29.3%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-114 Lake Boulevard-Russell Boulevard.ppd

Date : 10/28/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Lake Boulevard Southbound					Russell Boulevard Westbound					Bike Path Northbound					Russell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	18	0	11	0	29	0	4	10	0	14	0	0	0	0	0	1	11	0	0	12	55	0
07:15	36	0	9	0	45	0	8	10	0	18	0	0	0	0	0	2	19	0	0	21	84	0
07:30	47	0	9	0	56	0	15	11	0	26	0	0	0	0	0	2	20	0	0	22	104	0
07:45	43	0	12	0	55	0	20	14	0	34	0	0	0	0	0	4	38	0	0	42	131	0
<b>Total</b>	<b>144</b>	<b>0</b>	<b>41</b>	<b>0</b>	<b>185</b>	<b>0</b>	<b>47</b>	<b>45</b>	<b>0</b>	<b>92</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>88</b>	<b>0</b>	<b>0</b>	<b>97</b>	<b>374</b>	<b>0</b>
08:00	36	0	19	0	55	0	19	14	0	33	0	0	0	0	0	8	37	0	0	45	133	0
08:15	41	0	20	0	61	0	34	16	0	50	0	0	0	0	0	12	38	0	0	50	161	0
08:30	62	0	10	0	72	0	16	13	0	29	0	0	0	0	0	9	31	0	0	40	141	0
08:45	48	0	16	0	64	0	17	16	0	33	0	0	0	0	0	5	27	0	0	32	129	0
<b>Total</b>	<b>187</b>	<b>0</b>	<b>65</b>	<b>0</b>	<b>252</b>	<b>0</b>	<b>86</b>	<b>59</b>	<b>0</b>	<b>145</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>133</b>	<b>0</b>	<b>0</b>	<b>167</b>	<b>564</b>	<b>0</b>
16:00	32	0	4	0	36	0	23	21	0	44	0	0	0	0	0	8	26	0	0	34	114	0
16:15	24	0	11	0	35	0	23	46	0	69	0	0	0	0	0	14	13	0	0	27	131	0
16:30	31	0	8	0	39	0	25	29	0	54	0	0	0	0	0	20	20	0	0	40	133	0
16:45	18	0	9	0	27	0	14	36	0	50	0	0	0	0	0	17	27	0	0	44	121	0
<b>Total</b>	<b>105</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>137</b>	<b>0</b>	<b>85</b>	<b>132</b>	<b>0</b>	<b>217</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>59</b>	<b>86</b>	<b>0</b>	<b>0</b>	<b>145</b>	<b>499</b>	<b>0</b>
17:00	30	0	5	0	35	0	30	29	0	59	0	0	0	0	0	21	24	0	0	45	139	0
17:15	26	0	5	0	31	0	28	42	0	70	0	0	0	0	0	13	25	0	0	38	139	0
17:30	40	0	8	0	48	0	25	37	0	62	0	0	0	0	0	20	14	0	0	34	144	0
17:45	38	0	9	0	47	0	16	45	0	61	0	0	0	0	0	11	18	0	0	29	137	0
<b>Total</b>	<b>134</b>	<b>0</b>	<b>27</b>	<b>0</b>	<b>161</b>	<b>0</b>	<b>99</b>	<b>153</b>	<b>0</b>	<b>252</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>65</b>	<b>81</b>	<b>0</b>	<b>0</b>	<b>146</b>	<b>559</b>	<b>0</b>
<b>Grand Total</b>	<b>570</b>	<b>0</b>	<b>165</b>	<b>0</b>	<b>735</b>	<b>0</b>	<b>317</b>	<b>389</b>	<b>0</b>	<b>706</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>167</b>	<b>388</b>	<b>0</b>	<b>0</b>	<b>555</b>	<b>1996</b>	<b>0</b>
Apprch %	77.6%	0.0%	22.4%	0.0%		0.0%	44.9%	55.1%	0.0%		0.0%	0.0%	0.0%	0.0%		30.1%	69.9%	0.0%	0.0%			
Total %	28.6%	0.0%	8.3%	0.0%	36.8%	0.0%	15.9%	19.5%	0.0%	35.4%	0.0%	0.0%	0.0%	0.0%	0.0%	8.4%	19.4%	0.0%	0.0%	27.8%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-115A Arlington Boulevard-Russell Boulevard.ppd

Date : 10/28/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Arlington Boulevard Southbound					Westbound					Arlington Boulevard Northbound					Russell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	33	3	0	36	0	0	0	0	0	15	9	0	0	24	2	0	0	0	2	62	0
07:15	0	40	2	0	42	0	0	0	0	0	21	22	0	0	43	0	0	0	0	0	85	0
07:30	0	60	6	0	66	0	0	0	0	0	23	22	0	0	45	4	0	0	0	4	115	0
07:45	0	138	10	0	148	0	0	0	0	0	30	40	0	2	72	7	0	0	0	7	227	2
<b>Total</b>	0	271	21	0	292	0	0	0	0	0	89	93	0	2	184	13	0	0	0	13	489	2
08:00	0	116	6	0	122	0	0	0	0	0	36	33	0	0	69	3	0	0	0	3	194	0
08:15	0	68	15	0	83	0	0	0	0	0	45	25	0	0	70	5	0	0	0	5	158	0
08:30	0	71	3	0	74	0	0	0	0	0	31	14	0	0	45	1	0	0	0	1	120	0
08:45	0	70	3	0	73	0	0	0	0	0	45	29	0	0	74	3	0	1	0	4	151	0
<b>Total</b>	0	325	27	0	352	0	0	0	0	0	157	101	0	0	258	12	0	1	0	13	623	0
16:00	0	43	1	0	44	0	0	0	0	0	53	50	0	0	103	3	0	1	0	4	151	0
16:15	0	41	1	0	42	0	0	0	0	0	81	62	0	0	143	0	0	0	0	0	185	0
16:30	0	36	0	0	36	0	0	0	0	0	65	57	0	0	122	1	0	0	0	1	159	0
16:45	0	27	3	0	30	0	0	0	0	0	63	48	0	0	111	2	0	0	0	2	143	0
<b>Total</b>	0	147	5	0	152	0	0	0	0	0	262	217	0	0	479	6	0	1	0	7	638	0
17:00	0	42	2	0	44	0	0	0	0	0	76	54	0	0	130	3	0	0	0	3	177	0
17:15	0	35	3	0	38	0	0	0	0	0	85	86	0	0	171	3	0	0	0	3	212	0
17:30	0	34	0	0	34	0	0	0	0	0	73	75	0	0	148	1	0	1	0	2	184	0
17:45	0	33	7	0	40	0	0	0	0	0	71	60	0	0	131	4	0	0	0	4	175	0
<b>Total</b>	0	144	12	0	156	0	0	0	0	0	305	275	0	0	580	11	0	1	0	12	748	0
<b>Grand Total</b>	0	887	65	0	952	0	0	0	0	0	813	686	0	2	1501	42	0	3	0	45	2498	2
Apprch %	0.0%	93.2%	6.8%	0.0%		0.0%	0.0%	0.0%	0.0%		54.2%	45.7%	0.0%	0.1%		93.3%	0.0%	6.7%	0.0%			
Total %	0.0%	35.5%	2.6%	0.0%	38.1%	0.0%	0.0%	0.0%	0.0%	0.0%	32.5%	27.5%	0.0%	0.1%	60.1%	1.7%	0.0%	0.1%	0.0%	1.8%	100.0%	



# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-115B Arlington Boulevard-Russell Boulevard.ppd

Date : 10/28/2014

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Arlington Boulevard Southbound					Russell Boulevard Westbound					Bike Path Northbound					Russell Boulevard Eastbound					Total	Uturn Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	31	0	0	0	31	0	0	24	0	24	0	0	0	0	0	0	29	0	0	29	84	0
07:15	42	0	0	0	42	0	0	43	0	43	0	0	0	0	0	0	60	0	0	60	145	0
07:30	58	0	0	0	58	0	0	47	0	47	0	0	0	0	0	0	72	0	0	72	177	0
07:45	140	0	0	0	140	0	0	75	0	75	0	0	0	0	0	0	95	0	0	95	310	0
Total	271	0	0	0	271	0	0	189	0	189	0	0	0	0	0	0	256	0	0	256	716	0
08:00	115	0	0	0	115	0	0	69	0	69	0	0	0	0	0	0	79	0	0	79	263	0
08:15	71	0	0	0	71	0	0	69	0	69	0	0	0	0	0	0	94	0	0	94	234	0
08:30	71	0	0	0	71	0	0	45	0	45	0	0	0	0	0	0	115	0	0	115	231	0
08:45	72	0	0	0	72	0	0	72	0	72	0	0	0	0	0	0	92	0	0	92	236	0
Total	329	0	0	0	329	0	0	255	0	255	0	0	0	0	0	0	380	0	0	380	964	0
16:00	44	0	0	0	44	0	0	104	0	104	0	0	0	0	0	0	59	0	0	59	207	0
16:15	43	0	0	0	43	0	0	143	0	143	0	0	0	0	0	0	49	0	0	49	235	0
16:30	36	0	0	0	36	0	0	122	0	122	0	0	0	0	0	0	61	0	0	61	219	0
16:45	27	0	0	0	27	0	0	112	0	112	0	0	0	0	0	0	53	0	0	53	192	0
Total	150	0	0	0	150	0	0	481	0	481	0	0	0	0	0	0	222	0	0	222	853	0
17:00	42	0	0	0	42	0	0	130	0	130	0	0	0	0	0	0	70	0	0	70	242	0
17:15	35	0	0	0	35	0	0	170	0	170	0	0	0	0	0	0	66	0	0	66	271	0
17:30	35	0	0	0	35	0	0	145	0	145	0	0	0	0	0	0	65	0	0	65	245	0
17:45	32	0	0	0	32	0	0	132	0	132	0	0	0	0	0	0	58	0	0	58	222	0
Total	144	0	0	0	144	0	0	577	0	577	0	0	0	0	0	0	259	0	0	259	980	0
Grand Total	894	0	0	0	894	0	0	1502	0	1502	0	0	0	0	0	0	1117	0	0	1117	3513	0
Apprch %	100.0%	0.0%	0.0%	0.0%		0.0%	0.0%	100.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%			
Total %	25.4%	0.0%	0.0%	0.0%	25.4%	0.0%	0.0%	42.8%	0.0%	42.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	31.8%	0.0%	0.0%	31.8%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-116 Eisenhower Street-Russell Boulevard.ppd

Date : 10/28/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	Eisenhower Street Southbound					Russell Boulevard Westbound					Bike Path Northbound					Russell Boulevard Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	5	0	0	0	5	0	25	0	0	25	0	0	0	0	0	1	59	0	0	60	90	0
07:15	4	0	0	0	4	0	41	5	0	46	0	0	0	0	0	0	102	0	0	102	152	0
07:30	9	0	1	0	10	0	47	13	0	60	0	0	0	0	0	0	129	0	0	129	199	0
07:45	9	0	0	0	9	0	73	98	0	171	0	0	0	0	0	4	229	0	0	233	413	0
<b>Total</b>	<b>27</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>28</b>	<b>0</b>	<b>186</b>	<b>116</b>	<b>0</b>	<b>302</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>519</b>	<b>0</b>	<b>0</b>	<b>524</b>	<b>854</b>	<b>0</b>
08:00	13	0	2	0	15	0	66	34	0	100	0	0	0	0	0	3	192	0	0	195	310	0
08:15	8	0	0	0	8	0	71	8	0	79	0	0	0	0	0	2	162	0	0	164	251	0
08:30	5	0	0	0	5	0	47	4	0	51	0	0	0	0	0	3	184	0	0	187	243	0
08:45	12	0	1	0	13	0	71	9	0	80	0	0	0	0	0	1	164	0	0	165	258	0
<b>Total</b>	<b>38</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>41</b>	<b>0</b>	<b>255</b>	<b>55</b>	<b>0</b>	<b>310</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>702</b>	<b>0</b>	<b>0</b>	<b>711</b>	<b>1062</b>	<b>0</b>
16:00	7	0	0	0	7	0	104	16	0	120	0	0	0	0	0	1	98	0	0	99	226	0
16:15	3	0	2	0	5	0	143	12	0	155	0	0	0	0	0	0	98	0	0	98	258	0
16:30	8	0	3	0	11	0	117	15	0	132	0	0	0	0	0	2	93	0	0	95	238	0
16:45	6	0	0	0	6	0	111	5	0	116	0	0	0	0	0	3	77	0	0	80	202	0
<b>Total</b>	<b>24</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>29</b>	<b>0</b>	<b>475</b>	<b>48</b>	<b>0</b>	<b>523</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>366</b>	<b>0</b>	<b>0</b>	<b>372</b>	<b>924</b>	<b>0</b>
17:00	3	0	3	0	6	0	124	9	1	134	0	0	0	0	0	1	111	0	0	112	252	1
17:15	6	0	1	0	7	0	168	13	1	182	0	0	0	0	0	6	94	0	0	100	289	1
17:30	4	0	1	0	5	0	143	13	0	156	0	0	0	0	0	2	99	0	0	101	262	0
17:45	4	0	1	0	5	0	135	7	0	142	0	0	0	0	0	2	88	0	0	90	237	0
<b>Total</b>	<b>17</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>23</b>	<b>0</b>	<b>570</b>	<b>42</b>	<b>2</b>	<b>614</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>392</b>	<b>0</b>	<b>0</b>	<b>403</b>	<b>1040</b>	<b>2</b>
<b>Grand Total</b>	<b>106</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>121</b>	<b>0</b>	<b>1486</b>	<b>261</b>	<b>2</b>	<b>1749</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>1979</b>	<b>0</b>	<b>0</b>	<b>2010</b>	<b>3880</b>	<b>2</b>
Apprch %	87.6%	0.0%	12.4%	0.0%		0.0%	85.0%	14.9%	0.1%		0.0%	0.0%	0.0%	0.0%		1.5%	98.5%	0.0%	0.0%			
Total %	2.7%	0.0%	0.4%	0.0%	3.1%	0.0%	38.3%	6.7%	0.1%	45.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	51.0%	0.0%	0.0%	51.8%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 14-7680-095 I-80 EB Off-Ramp-Chiles Road.ppd

Date : 10/15/2014

City of Davis  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	I-80 EB Off-Ramp Southbound					Chiles Road Westbound					Northbound					Chiles Road Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	29	0	16	0	45	0	54	0	0	54	0	0	0	0	0	0	73	0	0	73	172	0
07:15	46	0	20	0	66	0	43	0	0	43	0	0	0	0	0	0	66	0	0	66	175	0
07:30	36	0	20	0	56	0	78	0	0	78	0	0	0	0	0	0	107	0	0	107	241	0
07:45	70	0	26	0	96	0	77	0	0	77	0	0	0	0	0	0	83	0	0	83	256	0
<b>Total</b>	<b>181</b>	<b>0</b>	<b>82</b>	<b>0</b>	<b>263</b>	<b>0</b>	<b>252</b>	<b>0</b>	<b>0</b>	<b>252</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>329</b>	<b>0</b>	<b>0</b>	<b>329</b>	<b>844</b>	<b>0</b>
08:00	57	0	24	0	81	0	83	0	0	83	0	0	0	0	0	0	88	0	0	88	252	0
08:15	69	0	23	0	92	0	94	0	0	94	0	0	0	0	0	0	111	0	0	111	297	0
08:30	59	0	15	0	74	0	75	0	0	75	0	0	0	0	0	0	99	0	0	99	248	0
08:45	56	0	23	0	79	0	104	0	0	104	0	0	0	0	0	0	96	0	0	96	279	0
<b>Total</b>	<b>241</b>	<b>0</b>	<b>85</b>	<b>0</b>	<b>326</b>	<b>0</b>	<b>356</b>	<b>0</b>	<b>0</b>	<b>356</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>394</b>	<b>0</b>	<b>0</b>	<b>394</b>	<b>1076</b>	<b>0</b>
16:00	63	0	35	0	98	0	66	0	0	66	0	0	0	0	0	0	104	0	0	104	268	0
16:15	74	0	22	0	96	0	61	0	0	61	0	0	0	0	0	0	86	0	0	86	243	0
16:30	70	0	11	0	81	0	80	0	0	80	0	0	0	0	0	0	89	0	0	89	250	0
16:45	105	0	31	0	136	0	62	0	0	62	0	0	0	0	0	0	102	0	0	102	300	0
<b>Total</b>	<b>312</b>	<b>0</b>	<b>99</b>	<b>0</b>	<b>411</b>	<b>0</b>	<b>269</b>	<b>0</b>	<b>0</b>	<b>269</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>381</b>	<b>0</b>	<b>0</b>	<b>381</b>	<b>1061</b>	<b>0</b>
17:00	76	0	19	0	95	0	92	0	0	92	0	0	0	0	0	0	135	0	0	135	322	0
17:15	95	0	25	0	120	0	113	0	0	113	0	0	0	0	0	0	97	0	0	97	330	0
17:30	70	0	30	0	100	0	90	0	0	90	0	0	0	0	0	0	107	0	0	107	297	0
17:45	90	0	18	0	108	0	78	0	0	78	0	0	0	0	0	0	101	0	0	101	287	0
<b>Total</b>	<b>331</b>	<b>0</b>	<b>92</b>	<b>0</b>	<b>423</b>	<b>0</b>	<b>373</b>	<b>0</b>	<b>0</b>	<b>373</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>440</b>	<b>0</b>	<b>0</b>	<b>440</b>	<b>1236</b>	<b>0</b>
<b>Grand Total</b>	<b>1065</b>	<b>0</b>	<b>358</b>	<b>0</b>	<b>1423</b>	<b>0</b>	<b>1250</b>	<b>0</b>	<b>0</b>	<b>1250</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1544</b>	<b>0</b>	<b>0</b>	<b>1544</b>	<b>4217</b>	<b>0</b>
Apprch %	74.8%	0.0%	25.2%	0.0%		0.0%	100.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%			
Total %	25.3%	0.0%	8.5%	0.0%	33.7%	0.0%	29.6%	0.0%	0.0%	29.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	36.6%	0.0%	0.0%	36.6%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7233-002 SR 113 SB Ramps-County Road 29.ppd

Date : 3/24/2015

Yolo County  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	SR 113 SB Off-Ramp Southbound					County Road 29 Westbound					SR 113 SB On-Ramp Northbound					County Road 29 Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	17	0	7	0	24	2	6	0	0	8	0	0	0	0	0	0	19	9	0	28	60	0
07:15	28	0	11	0	39	1	12	0	0	13	0	0	0	0	0	0	23	9	0	32	84	0
07:30	26	1	15	0	42	7	19	0	0	26	0	0	0	0	0	0	25	6	0	31	99	0
07:45	42	1	27	0	70	9	24	0	0	33	0	0	0	0	0	0	38	18	0	56	159	0
<b>Total</b>	<b>113</b>	<b>2</b>	<b>60</b>	<b>0</b>	<b>175</b>	<b>19</b>	<b>61</b>	<b>0</b>	<b>0</b>	<b>80</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>105</b>	<b>42</b>	<b>0</b>	<b>147</b>	<b>402</b>	<b>0</b>
08:00	24	1	22	0	47	6	19	0	0	25	0	0	0	0	0	0	18	6	0	24	96	0
08:15	38	0	13	0	51	4	18	0	0	22	0	0	0	0	0	0	36	10	0	46	119	0
08:30	14	1	14	0	29	7	22	0	0	29	0	0	0	0	0	0	33	9	0	42	100	0
08:45	27	2	12	0	41	5	27	0	0	32	0	0	0	0	0	0	43	8	0	51	124	0
<b>Total</b>	<b>103</b>	<b>4</b>	<b>61</b>	<b>0</b>	<b>168</b>	<b>22</b>	<b>86</b>	<b>0</b>	<b>0</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>130</b>	<b>33</b>	<b>0</b>	<b>163</b>	<b>439</b>	<b>0</b>
16:00	16	0	8	0	24	11	29	0	0	40	0	0	0	0	0	0	22	3	0	25	89	0
16:15	17	0	11	0	28	2	21	0	0	23	0	0	0	0	0	0	36	3	0	39	90	0
16:30	17	1	7	0	25	3	29	0	0	32	0	0	0	0	0	0	44	2	0	46	103	0
16:45	23	0	19	0	42	5	20	0	0	25	0	0	0	0	0	0	38	8	0	46	113	0
<b>Total</b>	<b>73</b>	<b>1</b>	<b>45</b>	<b>0</b>	<b>119</b>	<b>21</b>	<b>99</b>	<b>0</b>	<b>0</b>	<b>120</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>140</b>	<b>16</b>	<b>0</b>	<b>156</b>	<b>395</b>	<b>0</b>
17:00	22	1	6	0	29	3	32	0	0	35	0	0	0	0	0	0	63	5	0	68	132	0
17:15	36	0	8	0	44	10	32	0	0	42	0	0	0	0	0	0	36	7	0	43	129	0
17:30	37	0	3	0	40	3	33	0	0	36	0	0	0	0	0	0	24	7	0	31	107	0
17:45	29	0	12	0	41	1	25	0	0	26	0	0	0	0	0	0	31	8	0	39	106	0
<b>Total</b>	<b>124</b>	<b>1</b>	<b>29</b>	<b>0</b>	<b>154</b>	<b>17</b>	<b>122</b>	<b>0</b>	<b>0</b>	<b>139</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>154</b>	<b>27</b>	<b>0</b>	<b>181</b>	<b>474</b>	<b>0</b>
<b>Grand Total</b>	<b>413</b>	<b>8</b>	<b>195</b>	<b>0</b>	<b>616</b>	<b>79</b>	<b>368</b>	<b>0</b>	<b>0</b>	<b>447</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>529</b>	<b>118</b>	<b>0</b>	<b>647</b>	<b>1710</b>	<b>0</b>
Apprch %	67.0%	1.3%	31.7%	0.0%		17.7%	82.3%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	81.8%	18.2%	0.0%			
Total %	24.2%	0.5%	11.4%	0.0%	36.0%	4.6%	21.5%	0.0%	0.0%	26.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	30.9%	6.9%	0.0%	37.8%	100.0%	

# ALL TRAFFIC DATA

(916) 771-8700

[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

File Name : 15-7233-001 SR 113 NB Ramps-County Road 29.ppd

Date : 3/24/2015

Yolo County  
All Vehicles on Unshifted  
Peds & Bikes on Bank 1  
Nothing on Bank 2

## Unshifted Count = All Vehicles

START TIME	SR 113 NB Ramps Southbound					County Road 29 Westbound					Northbound					County Road 29 Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	4	0	1	0	5	0	6	8	0	14	0	0	0	0	0	9	29	0	0	38	57	0
07:15	4	0	4	0	8	0	10	26	1	37	0	0	0	0	0	11	38	0	0	49	94	1
07:30	4	0	6	0	10	0	22	30	0	52	0	0	0	0	0	7	46	0	0	53	115	0
07:45	2	0	5	0	7	0	26	41	0	67	0	0	0	0	0	16	65	0	0	81	155	0
Total	14	0	16	0	30	0	64	105	1	170	0	0	0	0	0	43	178	0	0	221	421	1
08:00	12	0	6	0	18	0	22	31	0	53	0	0	0	0	0	5	36	0	0	41	112	0
08:15	5	0	4	0	9	0	16	31	0	47	0	0	0	0	0	7	66	0	0	73	129	0
08:30	6	0	5	0	11	0	22	18	1	41	0	0	0	0	0	6	42	0	0	48	100	1
08:45	3	0	4	0	7	0	30	28	0	58	0	0	0	0	0	15	55	0	0	70	135	0
Total	26	0	19	0	45	0	90	108	1	199	0	0	0	0	0	33	199	0	0	232	476	1
16:00	9	0	16	0	25	0	24	19	0	43	0	0	0	0	0	9	31	0	0	40	108	0
16:15	2	0	11	0	13	0	14	23	0	37	0	0	0	0	0	13	39	0	0	52	102	0
16:30	6	0	5	0	11	0	24	34	0	58	0	0	0	0	0	22	39	0	0	61	130	0
16:45	2	0	3	0	5	0	23	18	0	41	0	0	0	0	0	17	44	0	0	61	107	0
Total	19	0	35	0	54	0	85	94	0	179	0	0	0	0	0	61	153	0	0	214	447	0
17:00	6	0	10	0	16	0	27	46	0	73	0	0	0	0	0	32	51	0	0	83	172	0
17:15	5	0	10	0	15	0	29	31	0	60	0	0	0	0	0	16	59	0	0	75	150	0
17:30	5	0	6	0	11	0	30	24	0	54	0	0	0	0	0	12	49	0	0	61	126	0
17:45	2	0	5	0	7	0	21	28	0	49	0	0	0	0	0	15	44	0	0	59	115	0
Total	18	0	31	0	49	0	107	129	0	236	0	0	0	0	0	75	203	0	0	278	563	0
Grand Total	77	0	101	0	178	0	346	436	2	784	0	0	0	0	0	212	733	0	0	945	1907	2
Apprch %	43.3%	0.0%	56.7%	0.0%		0.0%	44.1%	55.6%	0.3%		0.0%	0.0%	0.0%	0.0%	0.0%	22.4%	77.6%	0.0%	0.0%			
Total %	4.0%	0.0%	5.3%	0.0%	9.3%	0.0%	18.1%	22.9%	0.1%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	38.4%	0.0%	0.0%	49.6%	100.0%	

# ALL TRAFFIC DATA

City of Davis  
 All Vehicles on Unshifted  
 Peds & Bikes on Bank 1  
 Nothing on Bank 2

(916) 771-8700  
[orders@atdtraffic.com](mailto:orders@atdtraffic.com)

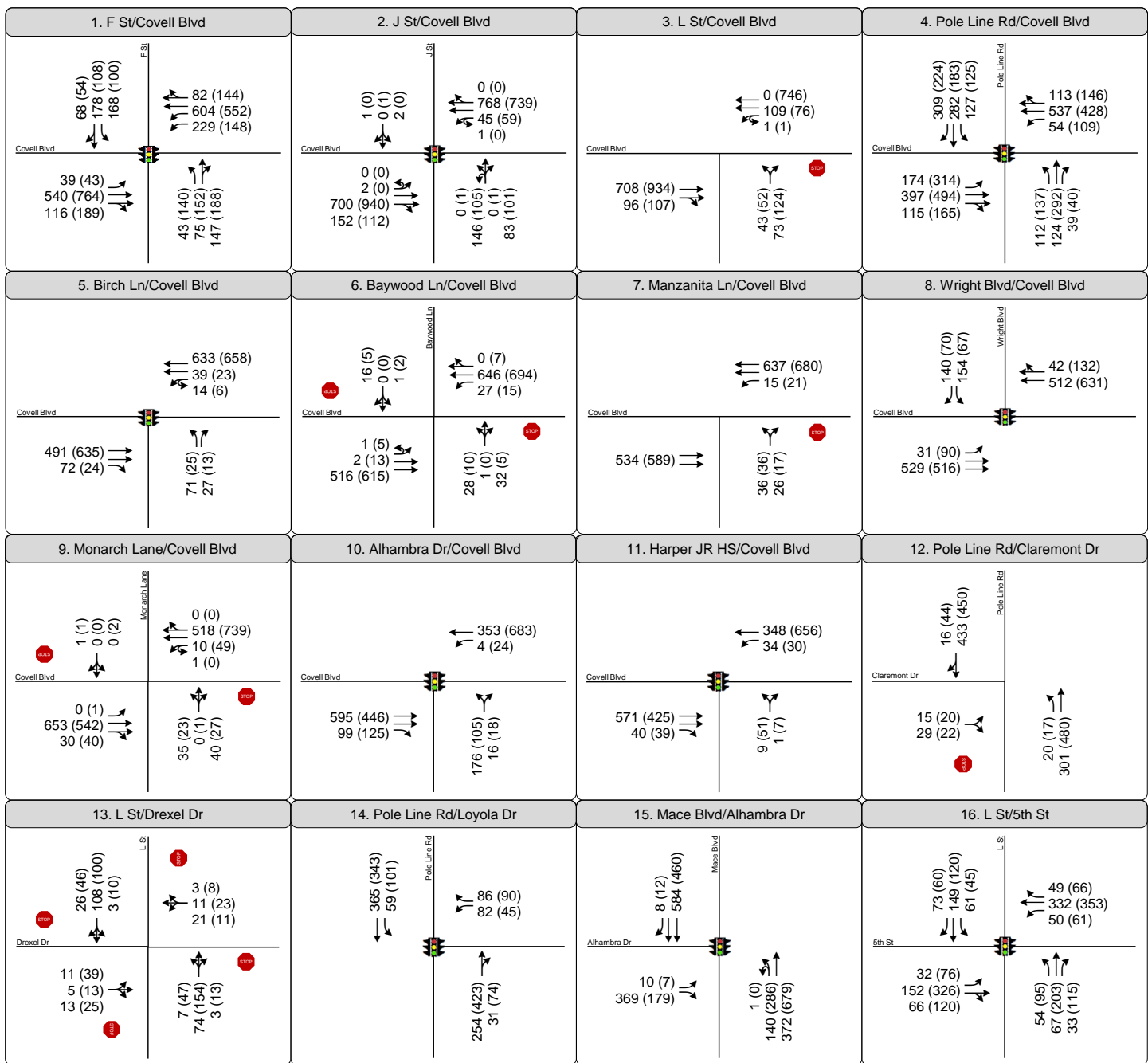
File Name : 15-7124-001 County Road 99D-Barry Road.ppd  
 Date : 2/12/2015

## Unshifted Count = All Vehicles

START TIME	County Road 99 Southbound					Westbound					County Road 99 Northbound					Barry Road Eastbound					Total	Utum Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	8	0	0	8	0	0	0	0	0	3	7	0	0	10	0	0	3	0	3	21	0
07:15	0	12	0	0	12	0	0	0	0	0	2	2	0	0	4	0	0	4	0	4	20	0
07:30	0	22	1	0	23	0	0	0	0	0	1	12	0	0	13	0	0	2	0	2	38	0
07:45	0	38	1	0	39	0	0	0	0	0	0	8	0	0	8	1	0	3	0	4	51	0
<b>Total</b>	0	80	2	0	82	0	0	0	0	0	6	29	0	0	35	1	0	12	0	13	130	0
08:00	0	24	2	0	26	0	0	0	0	0	2	4	0	0	6	2	0	2	0	4	36	0
08:15	0	12	0	0	12	0	0	0	0	0	2	2	0	0	4	1	0	4	0	5	21	0
08:30	0	9	0	0	9	0	0	0	0	0	2	0	0	0	2	2	0	3	0	5	16	0
08:45	0	7	2	0	9	0	0	0	0	0	0	4	0	0	4	0	0	5	0	5	18	0
<b>Total</b>	0	52	4	0	56	0	0	0	0	0	6	10	0	0	16	5	0	14	0	19	91	0
16:00	0	6	0	0	6	0	0	0	0	0	3	10	0	0	13	0	0	4	0	4	23	0
16:15	0	3	0	0	3	0	0	0	0	0	2	2	0	0	4	0	0	4	0	4	11	0
16:30	0	5	0	0	5	0	0	0	0	0	1	13	0	0	14	0	0	1	0	1	20	0
16:45	0	9	0	0	9	0	0	0	0	0	3	19	0	0	22	0	0	1	0	1	32	0
<b>Total</b>	0	23	0	0	23	0	0	0	0	0	9	44	0	0	53	0	0	10	0	10	86	0
17:00	0	4	0	0	4	0	0	0	0	0	2	34	0	0	36	0	0	1	0	1	41	0
17:15	0	9	0	0	9	0	0	0	0	0	4	15	0	0	19	0	0	0	0	0	28	0
17:30	0	8	0	0	8	0	0	0	0	0	3	11	0	0	14	0	0	0	0	0	22	0
17:45	0	7	0	0	7	0	0	0	0	0	2	13	0	0	15	0	0	1	0	1	23	0
<b>Total</b>	0	28	0	0	28	0	0	0	0	0	11	73	0	0	84	0	0	2	0	2	114	0
<b>Grand Total</b>	0	183	6	0	189	0	0	0	0	0	32	156	0	0	188	6	0	38	0	44	421	0
Apprch %	0.0%	96.8%	3.2%	0.0%		0.0%	0.0%	0.0%	0.0%		17.0%	83.0%	0.0%	0.0%		13.6%	0.0%	86.4%	0.0%			
Total %	0.0%	43.5%	1.4%	0.0%	44.9%	0.0%	0.0%	0.0%	0.0%	0.0%	7.6%	37.1%	0.0%	0.0%	44.7%	1.4%	0.0%	9.0%	0.0%	10.5%	100.0%	

## **J.2 – INTERSECTION TRAFFIC VOLUMES – ALL CASES**



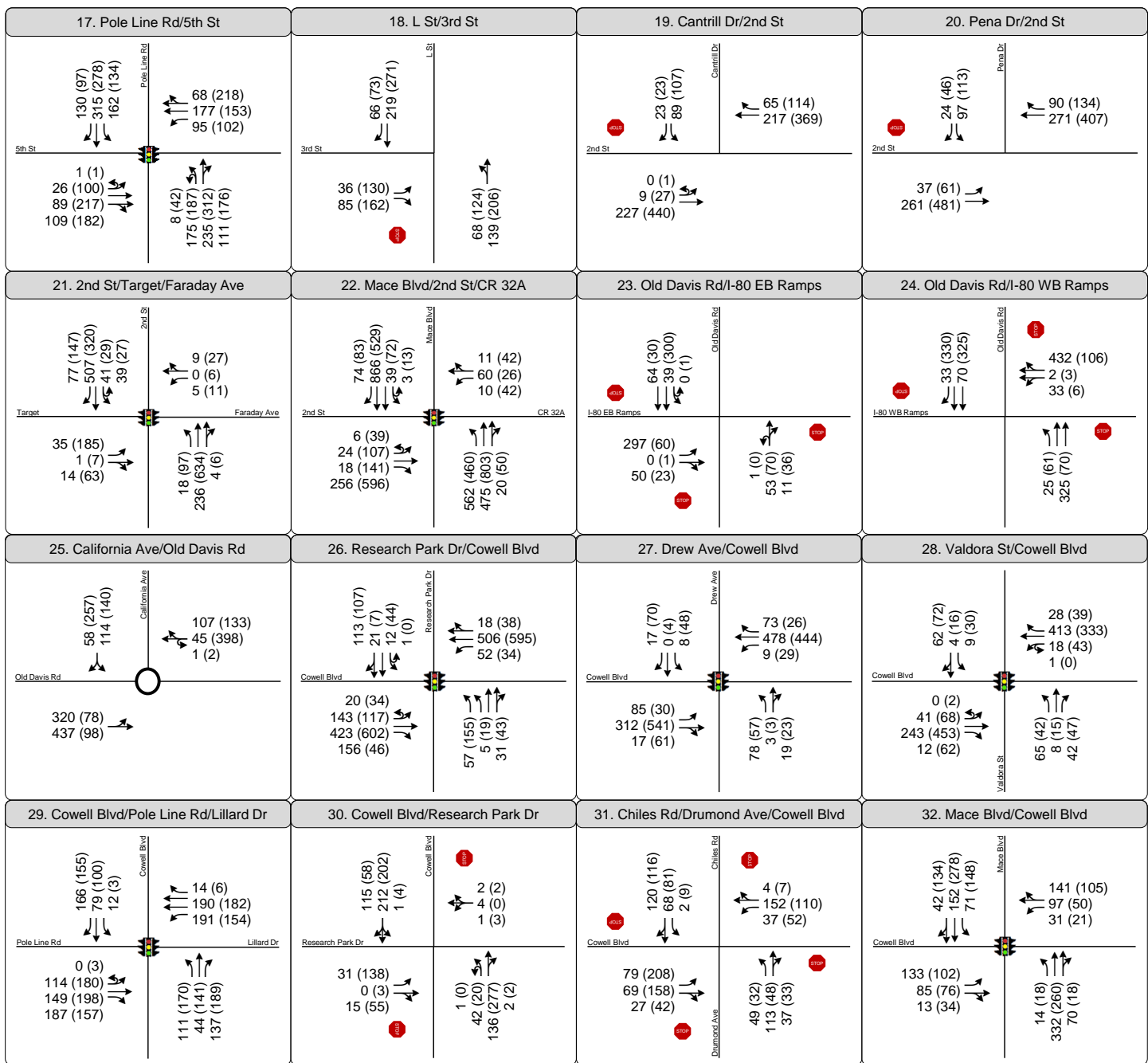


-  Turn Lane
- AM (PM)** Peak Hour Traffic Volume
-  Traffic Signal
-  Stop Sign
-  Roundabout

Figure 1A  
 Peak Hour Intersection Volumes  
 Existing Conditions



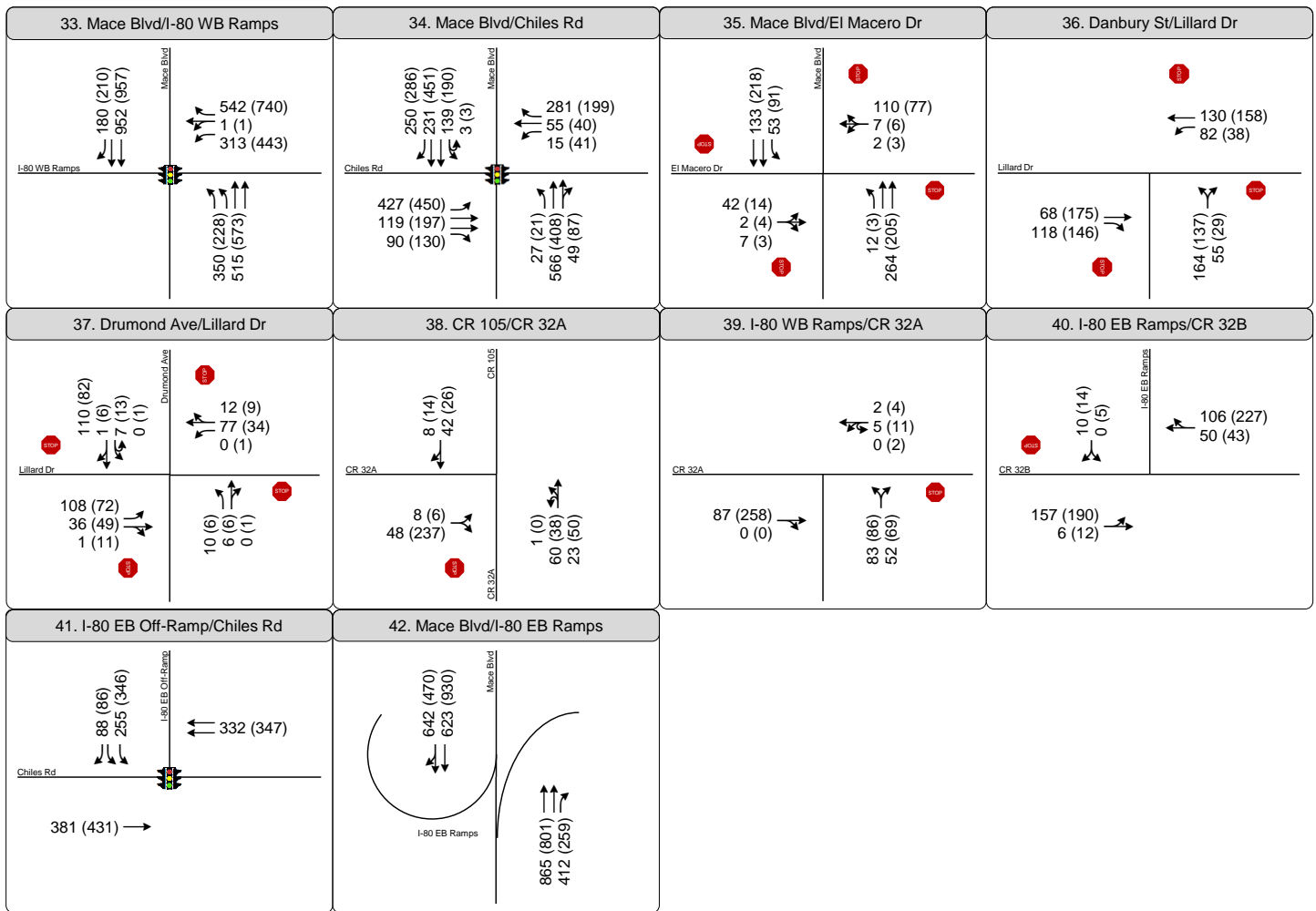




- Turn Lane
- AM (PM)** Peak Hour Traffic Volume
- Traffic Signal
- Stop Sign
- Roundabout



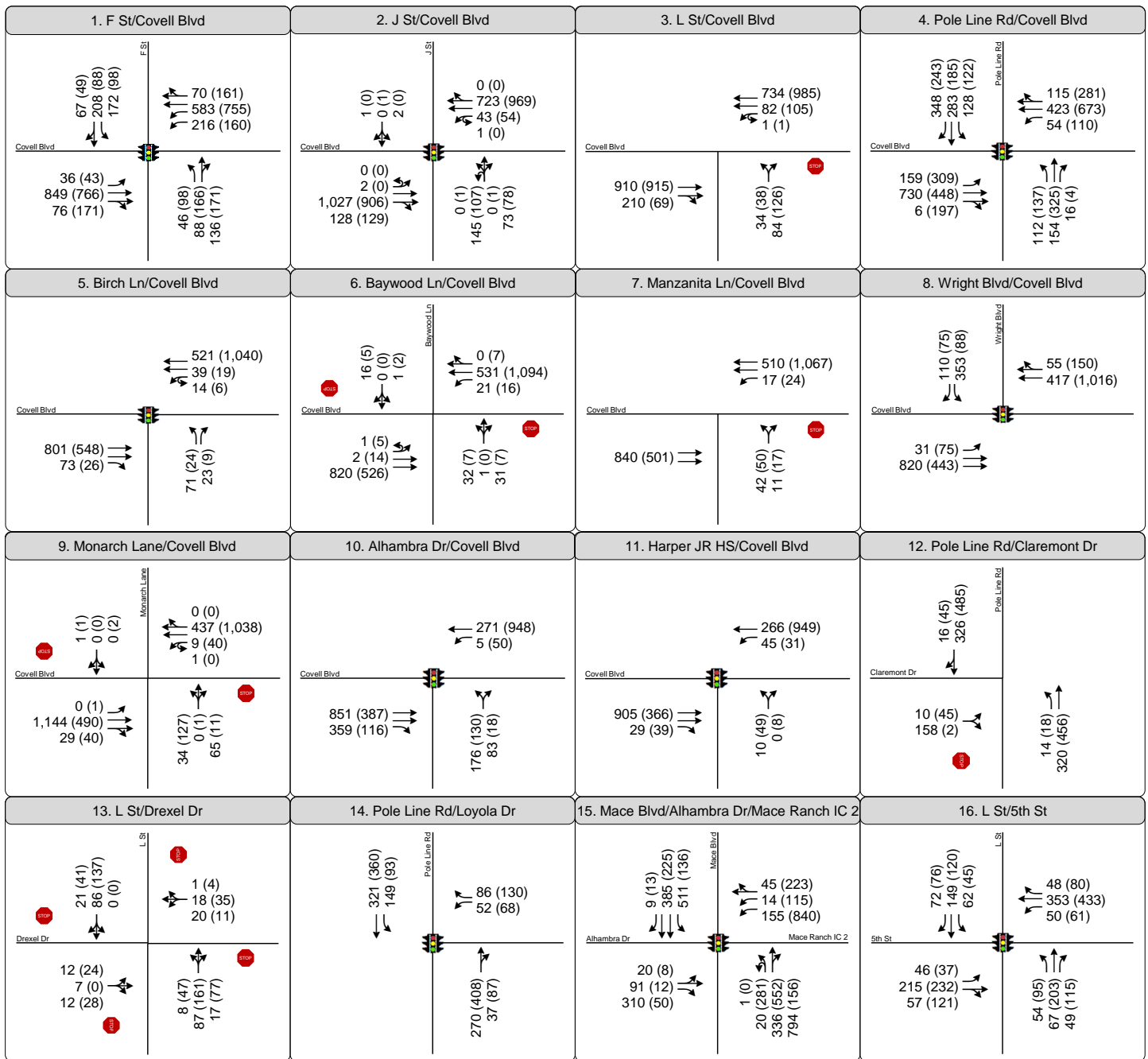
Figure 1B  
Peak Hour Intersection Volumes  
Existing Conditions



- Turn Lane
- AM (PM)** Peak Hour Traffic Volume
- Traffic Signal
- Stop Sign
- Roundabout

Figure 1C  
Peak Hour Intersection Volumes  
Existing Conditions

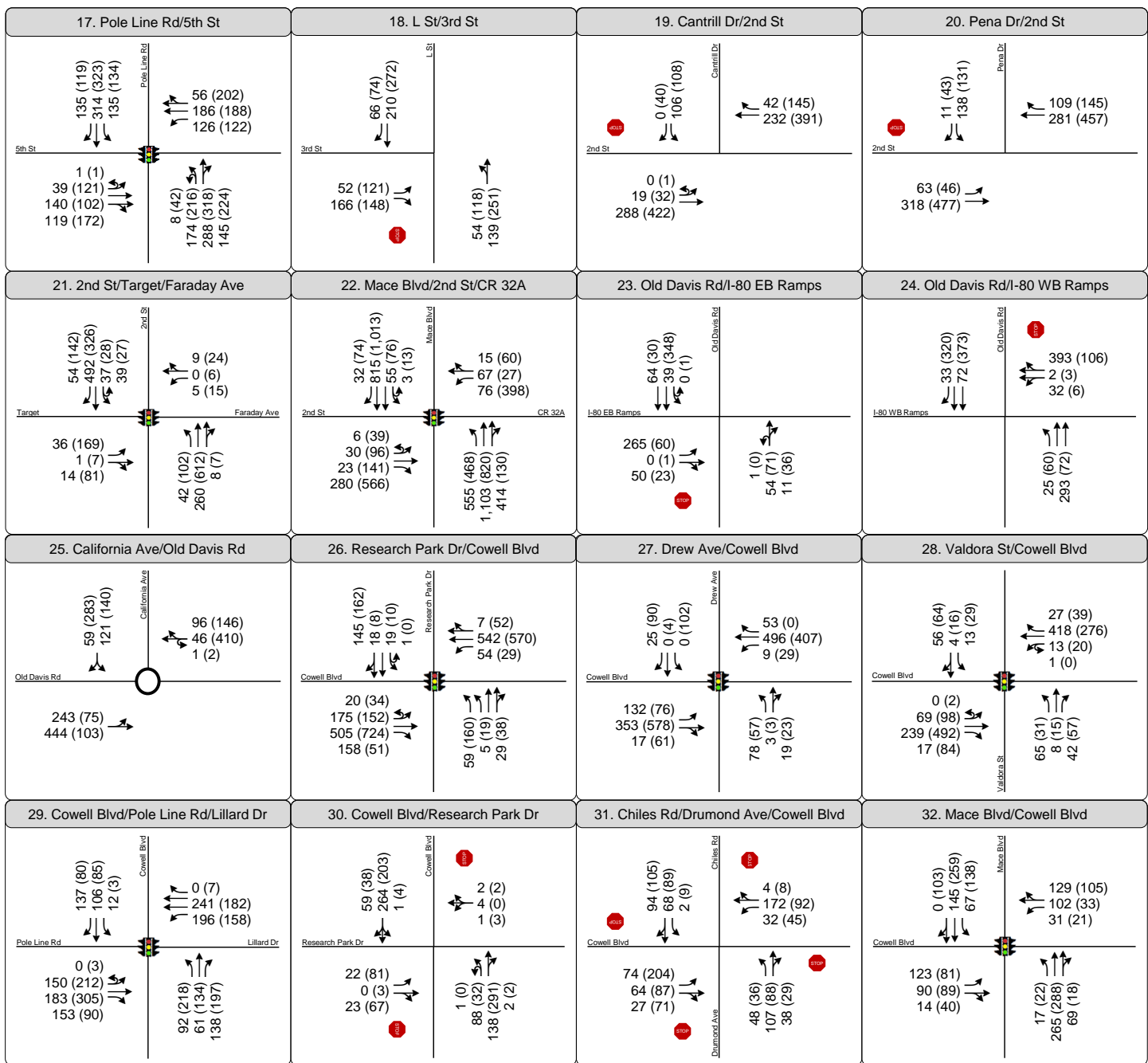




-  Turn Lane
- AM (PM)** Peak Hour Traffic Volume
-  Traffic Signal
-  Stop Sign
-  Roundabout

Figure 2A  
 Peak Hour Intersection Volumes  
 Existing Plus Project

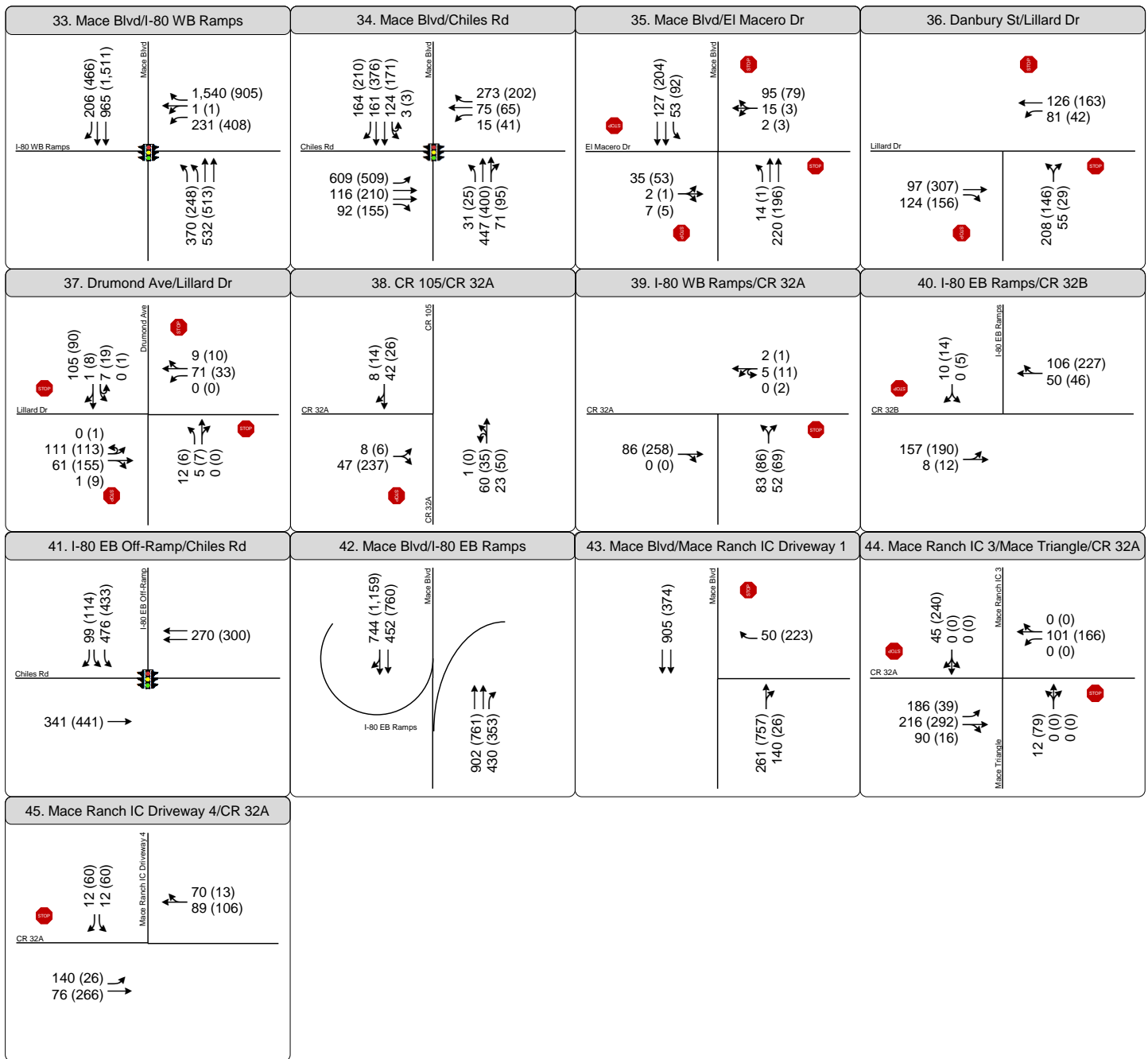




- Turn Lane
- AM (PM)** Peak Hour Traffic Volume
- Traffic Signal
- Stop Sign
- Roundabout



Figure 2B  
Peak Hour Intersection Volumes  
Existing Plus Project



- Turn Lane
- AM (PM)** Peak Hour Traffic Volume
- Traffic Signal
- Stop Sign
- Roundabout



Figure 2C  
Peak Hour Intersection Volumes  
Existing Plus Project

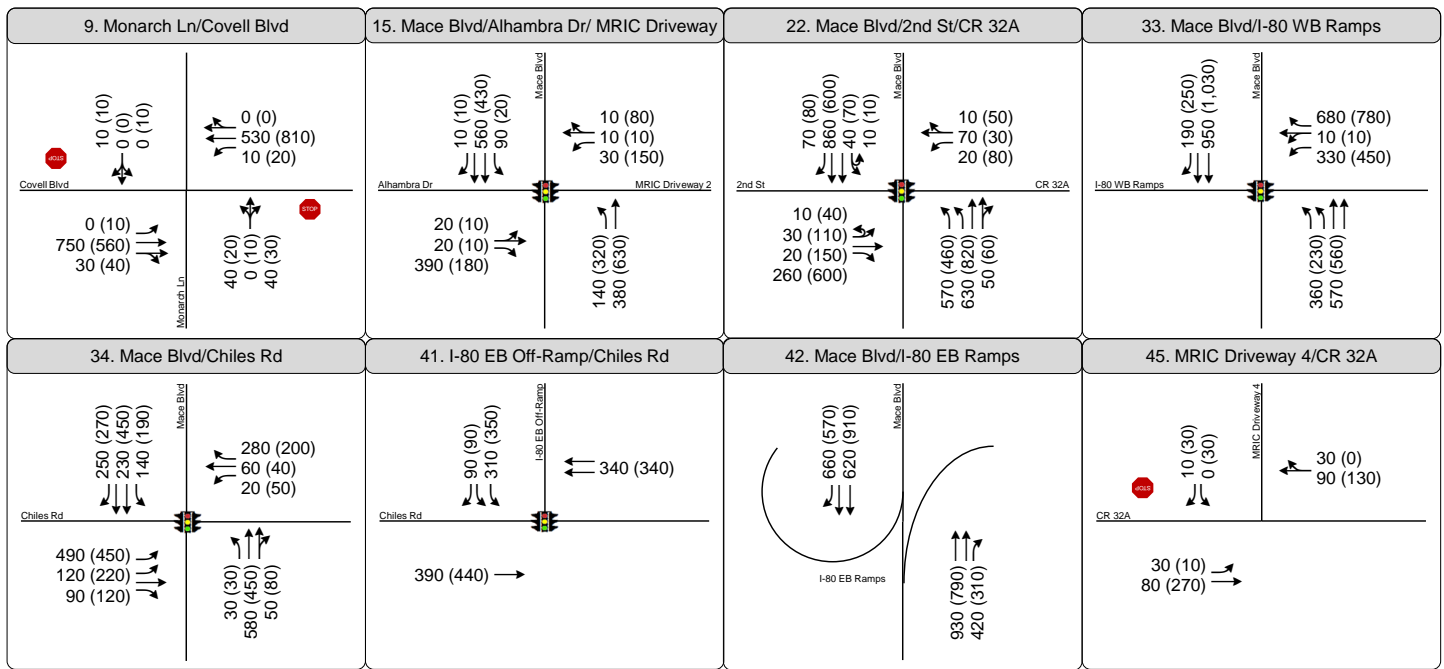


Figure 3  
 Peak Hour Traffic Volumes  
 Existing Plus Project Phase 1



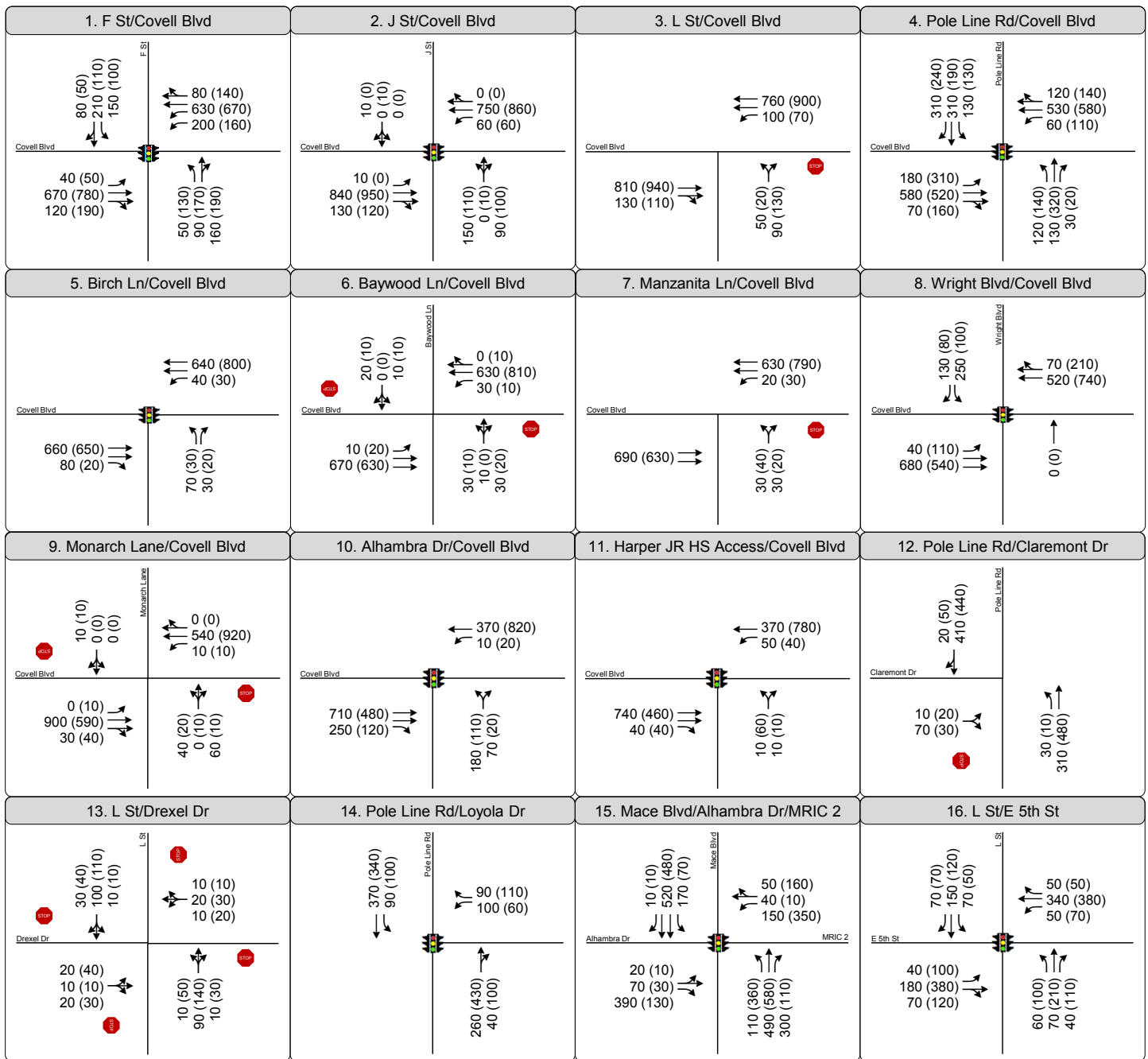


Figure 4A  
Peak Hour Traffic Volumes  
Existing Plus Project Mixed-Use



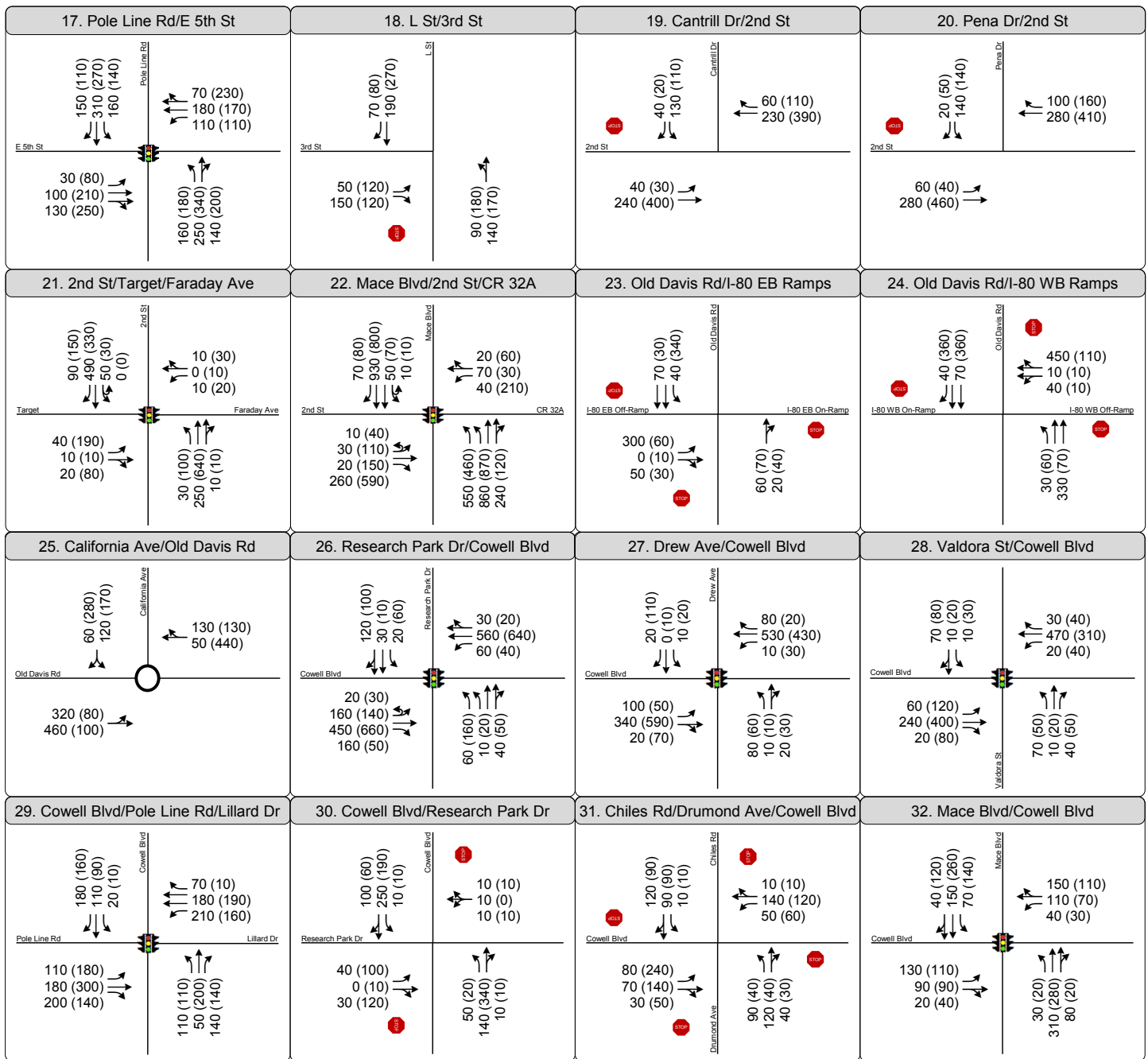


Figure 4B  
 Peak Hour Traffic Volumes  
 Existing Plus Project Mixed-Use





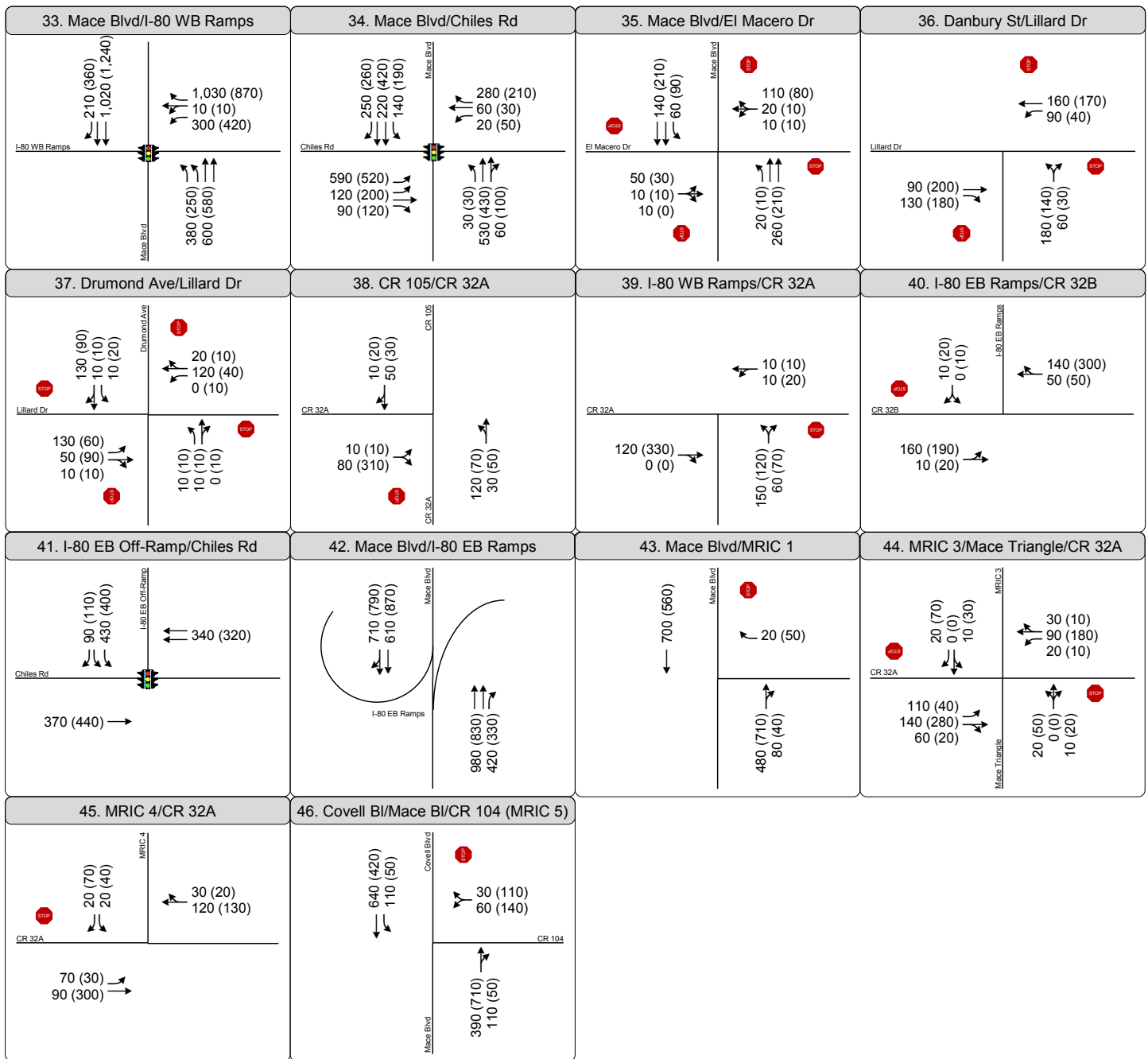
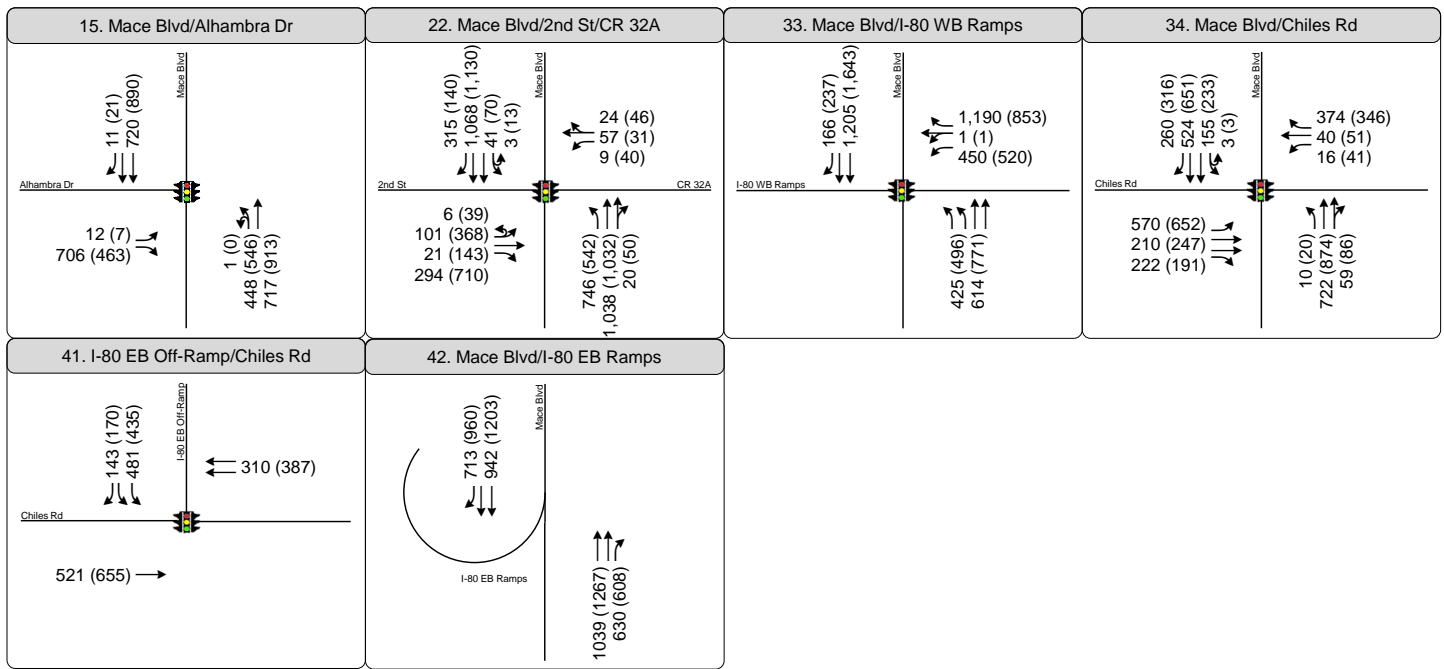


Figure 4C  
 Peak Hour Traffic Volumes  
 Existing Plus Project Mixed-Use

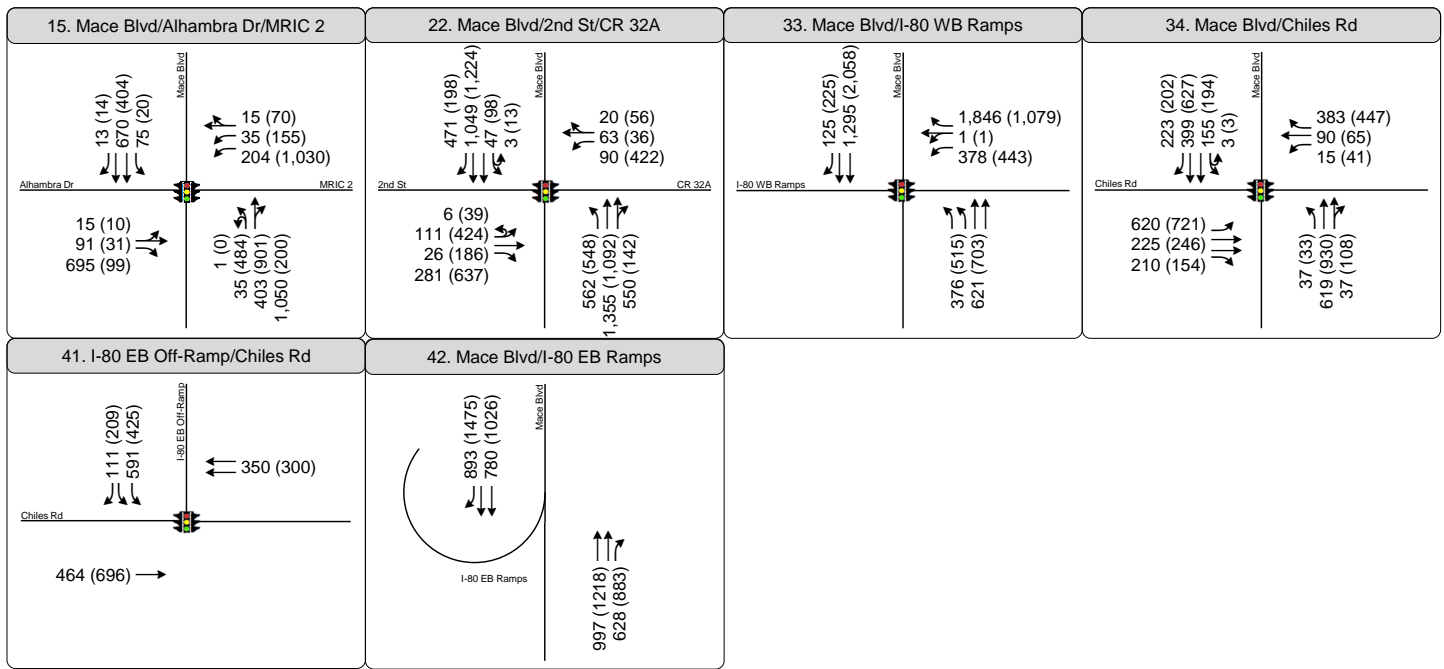




-  Turn Lane
- AM (PM)** Peak Hour Traffic Volume
-  Traffic Signal
-  Stop Sign

Figure 5  
 Peak Hour Intersection Volumes  
 CEQA Cumulative No Project





-  Turn Lane
- AM (PM)** Peak Hour Traffic Volume
-  Traffic Signal
-  Stop Sign

Figure 6  
Peak Hour Intersection Volumes  
Cumulative Plus Project



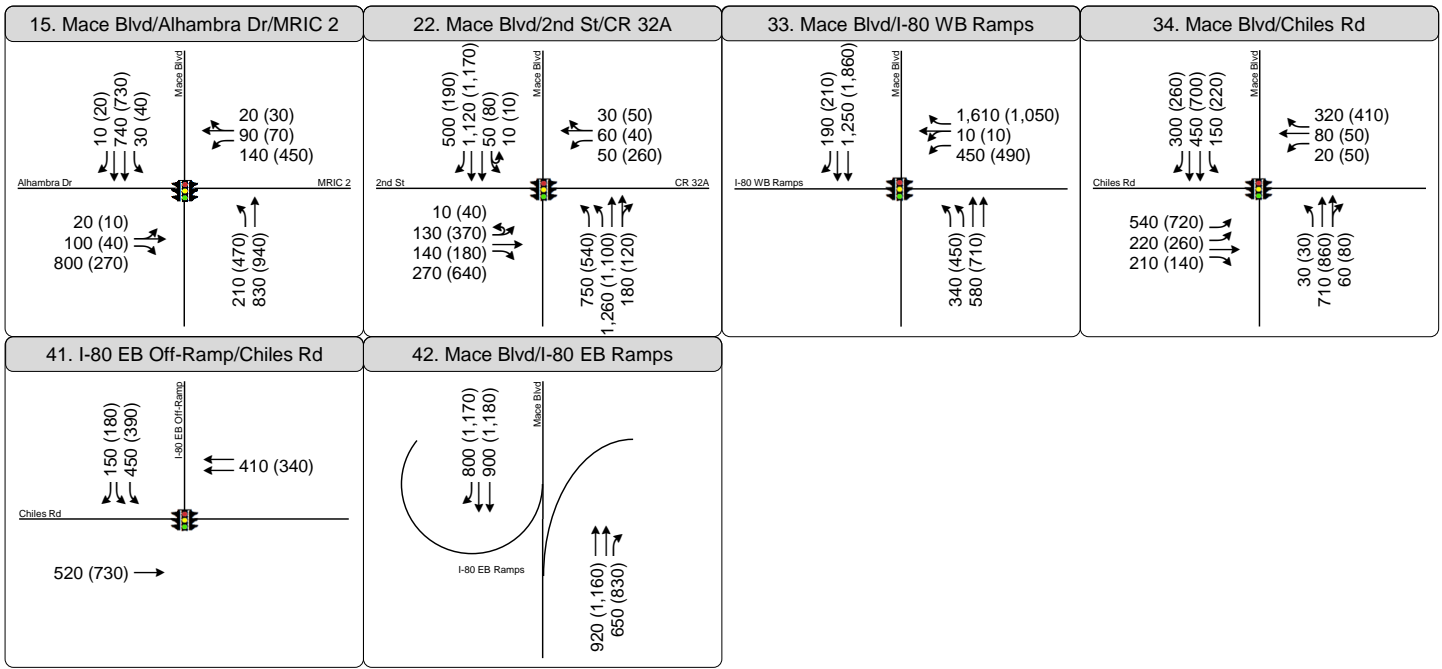


Figure 7  
 Peak Hour Traffic Volumes  
 CEQA Cumulative Plus Project Mixed-Use



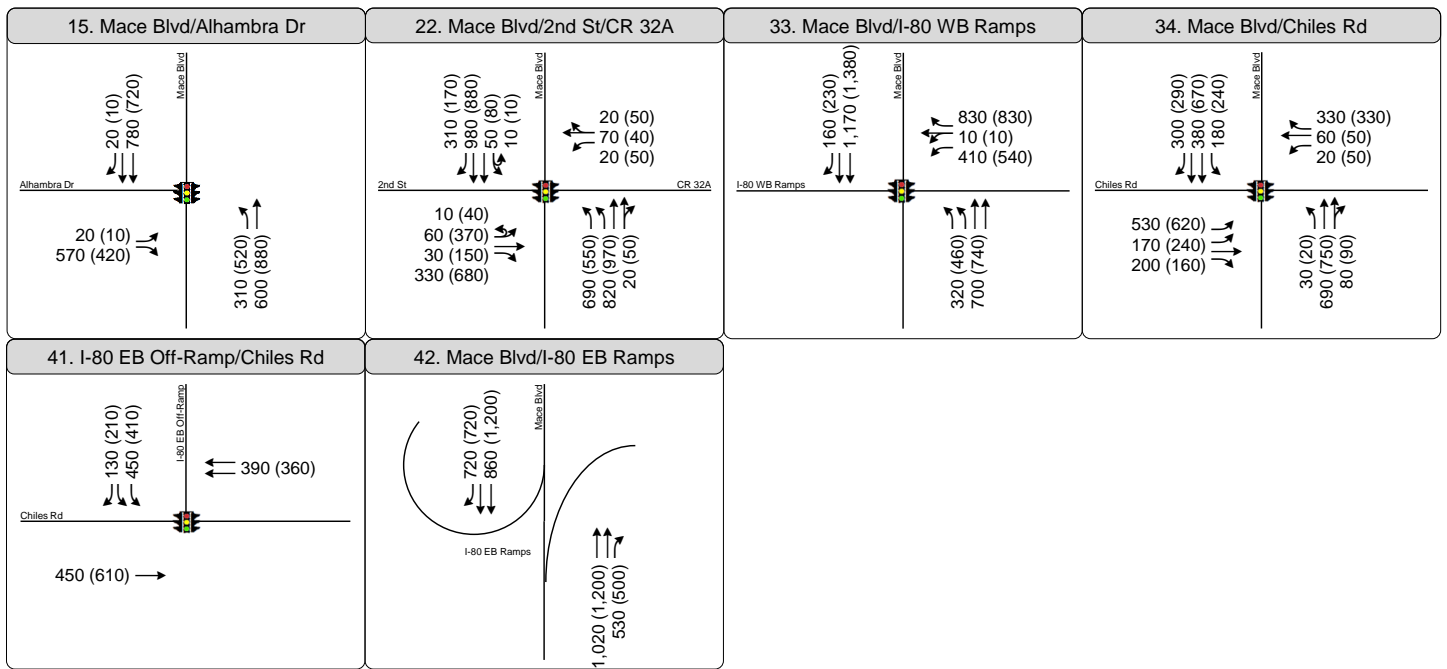


Figure 8  
Peak Hour Traffic Volumes  
Modified Cumulative No Project



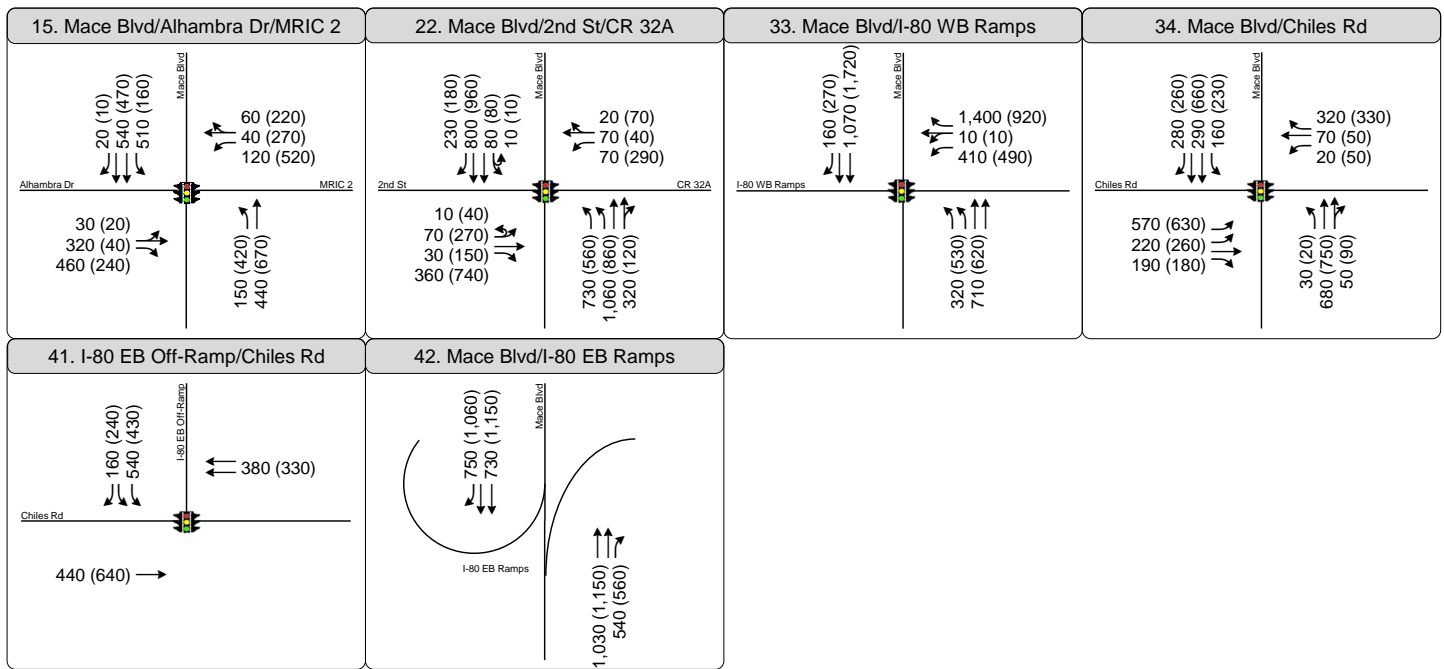


Figure 9  
Peak Hour Traffic Volumes  
Modified Cumulative Plus Project



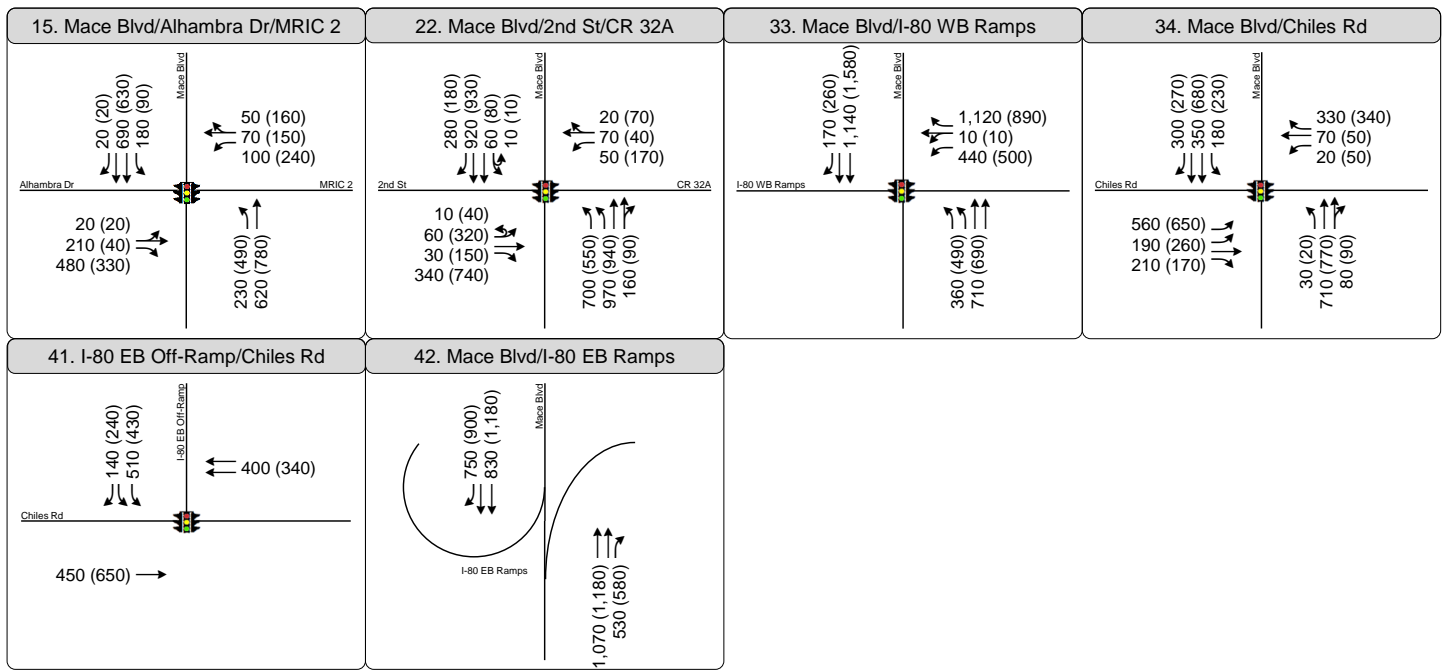


Figure 10  
 Peak Hour Traffic Volumes  
 Modified Cumulative Plus Project Mixed-Use



## **J.3 – INTERSECTION ANALYSIS – INTERSECTIONS OUTSIDE MACE BOULEVARD INTERCHANGE AREA (SYNCHRO)**

- A. Existing
- B. Existing Plus Project
- C. Existing Plus Phase 1
- D. Existing Plus Mixed-Use Alternative





**Note on intersection numbering:**

The analysis worksheets are ordered in the chronological order based on the MRIC intersection numbering. The analysis worksheets have the Master Number instead of the MRIC number due to concurrent work in a larger study area.

MRIC Number	Master Number	Intersection Name
1	20	E Covell Blvd / F St
2	19	E Covell Blvd / J St
3	18	E Covell Blvd / L St
4	17	E Covell Blvd / Pole Line Rd
5	16	E Covell Blvd / Birch Ln
6	15	E Covell Blvd / Baywood Ln
7	14	E Covell Blvd / Manzanita Ln
8	13	E Covell Blvd / Wright Blvd
9	12	E Covell Blvd / Monarch Ln
10	11	E Covell Blvd / Alhambra Dr
11	10	E Covell Blvd / Harper Jr HS Access
12	61	Pole Line Rd / Claremont Dr
13	58	Drexel Dr / L St
14	57	Loyola Dr / Pole Line Rd
15	6	Mace Blvd / Alhambra Dr
16	41	5th St / L St
17	40	5th St / Pole Line Rd
18	69	3rd St / L St
19	9	2nd St / Cantrell Dr
20	8	2nd St / Pena Dr
21	7	2nd St / Faraday Ave (Target)
22	5	Mace Blvd / 2nd Street
23	89	Old Davis Rd / I-80 EB Ramps
24	88	Old Davis Rd / I-80 WB Ramps
25	87	Old Davis Rd / California Ave
26	37	Cowell Blvd-Richards Blvd / Research Park Dr
27	36	Cowell Blvd / Drew Ave
28	35	Cowell Blvd / Valdora St
29	34	Cowell Blvd / Pole Line Rd
30	33	Cowell Blvd / Research Park Dr
31	32	Cowell Blvd / Drummond Ave
32	2	Mace Blvd / Cowell Blvd
33	4	Mace Blvd / WB I-80 Ramps
34	3	Mace Blvd / Chiles Rd
35	1	Mace Blvd / El Macero Drive
36	38	Lillard Dr / Danbury St
37	39	Lillard Dr / Drummond Ave
38	79	CR 32A / CR 105
39	80	CR 32A / I-80 WB Ramps
40	81	CR 32B / I-80 EB Ramps
41	103	Chiles Rd / I-80 EB Off Ramp
42	104	Mace Blvd / I-80 EB On Ramps
43	205	Mace Ranch IC Access 1 / Mace Blvd
44	206	Mace Ranch IC Access 3 / Mace Triangle / CR 32A
45	207	Mace Ranch IC Access 4 / CR 32A

### **J.3.A – EXISTING CONDITIONS**



Intersection												
Intersection Delay, s/veh	9.6											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	42	2	7	0	2	7	110	0	12	300	2
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	44	2	7	0	2	7	115	0	13	313	2
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	9.8	9.3	10
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	82%	2%	100%	0%	0%
Vol Thru, %	0%	100%	98%	4%	6%	0%	100%	87%
Vol Right, %	0%	0%	2%	14%	92%	0%	0%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	200	102	51	119	53	136	78
LT Vol	12	0	0	42	2	53	0	0
Through Vol	0	200	100	2	7	0	136	68
RT Vol	0	0	2	7	110	0	0	10
Lane Flow Rate	12	208	106	53	124	55	142	81
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.02	0.308	0.157	0.094	0.184	0.09	0.211	0.119
Departure Headway (Hd)	5.821	5.317	5.304	6.377	5.332	5.866	5.361	5.271
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	611	671	670	557	667	606	664	674
Service Time	3.598	3.093	3.079	4.176	3.117	3.646	3.141	3.051
HCM Lane V/C Ratio	0.02	0.31	0.158	0.095	0.186	0.091	0.214	0.12
HCM Control Delay	8.7	10.5	9.1	9.8	9.3	9.2	9.6	8.8
HCM Lane LOS	A	B	A	A	A	A	A	A
HCM 95th-tile Q	0.1	1.3	0.6	0.3	0.7	0.3	0.8	0.4

**Intersection**

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	53	204	10
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	55	213	10
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.3
HCM LOS	A

**Lane**

HCM 2010 Signalized Intersection Summary  
 2: Mace Blvd & Cowell Blvd

Existing Conditions  
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	133	85	13	31	97	141	14	368	70	71	223	42
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	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	139	89	0	32	101	0	15	383	0	74	232	0
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	182	367	0	67	246	0	34	857	0	127	1042	0
Arrive On Green	0.10	0.20	0.00	0.04	0.13	0.00	0.02	0.24	0.00	0.07	0.29	0.00
Sat Flow, veh/h	1774	1863	0	1774	1863	0	1774	3632	0	1774	3632	0
Grp Volume(v), veh/h	139	89	0	32	101	0	15	383	0	74	232	0
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	0	1774	1770	0	1774	1770	0
Q Serve(g_s), s	2.9	1.5	0.0	0.7	1.9	0.0	0.3	3.5	0.0	1.5	1.9	0.0
Cycle Q Clear(g_c), s	2.9	1.5	0.0	0.7	1.9	0.0	0.3	3.5	0.0	1.5	1.9	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	182	367	0	67	246	0	34	857	0	127	1042	0
V/C Ratio(X)	0.76	0.24	0.00	0.48	0.41	0.00	0.44	0.45	0.00	0.58	0.22	0.00
Avail Cap(c_a), veh/h	518	544	0	518	544	0	518	1880	0	518	1880	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)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.5	12.8	0.0	17.8	15.0	0.0	18.3	12.1	0.0	16.9	10.0	0.0
Incr Delay (d2), s/veh	6.5	0.3	0.0	5.2	1.1	0.0	8.6	0.4	0.0	4.2	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(-26165%),veh/ln	0.8	0.0	0.4	1.0	0.0	0.2	1.7	0.0	0.9	0.9	0.0	
LnGrp Delay(d),s/veh	23.0	13.1	0.0	22.9	16.1	0.0	26.9	12.5	0.0	21.1	10.1	0.0
LnGrp LOS	C	B		C	B		C	B		C	B	
Approach Vol, veh/h		228			133			398			306	
Approach Delay, s/veh		19.1			17.7			13.0			12.8	
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	6.7	14.1	5.4	11.4	4.7	16.1	7.9	9.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	20.0	11.0	11.0	11.0	20.0	11.0	11.0	11.0				
Max Q Clear Time (g_c+1), s	5.5	2.7	3.5	2.3	3.9	4.9	3.9	3.9				
Green Ext Time (p_c), s	0.1	3.4	0.0	0.6	0.0	3.5	0.2	0.5				

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  
7: 2nd St & Faraday Ave

Existing Conditions  
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↑	↗
Volume (veh/h)	35	1	14	5	0	9	18	236	4	80	507	77
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		0.98
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	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	36	1	15	5	0	9	19	246	4	83	528	80
Adj No. of Lanes	1	1	0	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	59	5	74	10	0	33	34	784	13	111	880	732
Arrive On Green	0.03	0.05	0.05	0.01	0.00	0.02	0.02	0.43	0.43	0.06	0.47	0.47
Sat Flow, veh/h	1774	100	1498	1774	0	1528	1774	1827	30	1774	1863	1549
Grp Volume(v), veh/h	36	0	16	5	0	9	19	0	250	83	528	80
Grp Sat Flow(s),veh/h/ln	1774	0	1598	1774	0	1528	1774	0	1857	1774	1863	1549
Q Serve(g_s), s	0.7	0.0	0.3	0.1	0.0	0.2	0.4	0.0	3.2	1.7	7.6	1.0
Cycle Q Clear(g_c), s	0.7	0.0	0.3	0.1	0.0	0.2	0.4	0.0	3.2	1.7	7.6	1.0
Prop In Lane	1.00		0.94	1.00		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	59	0	79	10	0	33	34	0	797	111	880	732
V/C Ratio(X)	0.61	0.00	0.20	0.52	0.00	0.27	0.56	0.00	0.31	0.75	0.60	0.11
Avail Cap(c_a), veh/h	195	0	483	195	0	462	195	0	1301	195	1305	1085
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	1.00	1.00
Uniform Delay (d), s/veh	17.4	0.0	16.6	18.1	0.0	17.5	17.7	0.0	6.9	16.8	7.1	5.3
Incr Delay (d2), s/veh	9.5	0.0	2.6	37.4	0.0	9.2	13.5	0.0	0.5	9.7	1.4	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(-26165%),veh/ln	0.0	0.0	0.2	0.1	0.0	0.2	0.3	0.0	1.7	1.1	4.2	0.5
LnGrp Delay(d),s/veh	26.9	0.0	19.2	55.5	0.0	26.8	31.2	0.0	7.3	26.5	8.5	5.5
LnGrp LOS	C		B	E		C	C		A	C	A	A
Approach Vol, veh/h		52			14			269			691	
Approach Delay, s/veh		24.5			37.0			9.0			10.3	
Approach LOS		C			D			A			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	20.1	4.2	5.8	4.7	21.7	5.2	4.8				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	1.0	25.5	4.0	11.0	4.0	25.5	4.0	11.0				
Max Q Clear Time (g_c+1), s	1.0	5.2	2.1	2.3	2.4	9.6	2.7	2.2				
Green Ext Time (p_c), s	0.0	8.8	0.0	0.1	0.0	7.6	0.0	0.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			11.0									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	37	261	271	90	97	24
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	150	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	272	282	94	101	25

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	282	0	631
Stage 1	-	-	282
Stage 2	-	-	349
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1280	-	445
Stage 1	-	-	766
Stage 2	-	-	714
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1280	-	431
Mov Cap-2 Maneuver	-	-	431
Stage 1	-	-	766
Stage 2	-	-	692

Approach	EB	WB	SB
HCM Control Delay, s	1	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1280	-	-	-	431	757
HCM Lane V/C Ratio	0.03	-	-	-	0.234	0.033
HCM Control Delay (s)	7.9	-	-	-	15.9	9.9
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9	0.1

**Intersection**

Int Delay, s/veh 2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	9	227	217	65	89	23
Conflicting Peds, #/hr	0	0	0	5	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	125	0	125
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	236	226	68	93	24

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	226	0	481
Stage 1	-	-	226
Stage 2	-	-	255
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1342	-	544
Stage 1	-	-	812
Stage 2	-	-	788
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1342	-	540
Mov Cap-2 Maneuver	-	-	540
Stage 1	-	-	812
Stage 2	-	-	783







Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1342	-	-	-	540	813
HCM Lane V/C Ratio	0.007	-	-	-	0.172	0.029
HCM Control Delay (s)	7.7	-	-	-	13	9.6
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.6	0.1



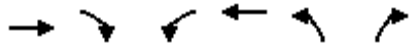
HCM 2010 Signalized Intersection Summary  
 10: Harper JR HS Access & Covell Blvd

Existing Conditions  
 AM Peak Hour

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑	↑	↑		
Volume (veh/h)	571	40	34	348	9	1		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	0.99		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1827	1815	1900		
Adj Flow Rate, veh/h	595	42	35	362	9	1		
Adj No. of Lanes	2	1	1	1	0	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	2	4	0	0		
Cap, veh/h	2248	1005	86	1435	16	2		
Arrive On Green	0.64	0.64	0.05	0.79	0.01	0.01		
Sat Flow, veh/h	3632	1582	1774	1827	1403	156		
Grp Volume(v), veh/h	595	42	35	362	11	0		
Grp Sat Flow(s),veh/h/ln	1770	1582	1774	1827	1714	0		
Q Serve(g_s), s	2.9	0.4	0.8	2.1	0.3	0.0		
Cycle Q Clear(g_c), s	2.9	0.4	0.8	2.1	0.3	0.0		
Prop In Lane		1.00	1.00		0.82	0.09		
Lane Grp Cap(c), veh/h	2248	1005	86	1435	20	0		
V/C Ratio(X)	0.26	0.04	0.41	0.25	0.56	0.00		
Avail Cap(c_a), veh/h	2787	1246	721	1439	1132	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	3.1	2.7	18.2	1.1	19.4	0.0		
Incr Delay (d2), s/veh	0.1	0.0	6.5	0.1	22.3	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	1.4	0.2	0.5	1.0	0.2	0.0		
LnGrp Delay(d),s/veh	3.2	2.7	24.7	1.2	41.6	0.0		
LnGrp LOS	A	A	C	A	D			
Approach Vol, veh/h	637			397	11			
Approach Delay, s/veh	3.2			3.3	41.6			
Approach LOS	A			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	5.9	29.0				34.9		4.5
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	31.0				31.0		26.0
Max Q Clear Time (g_c+I1), s	2.8	4.9				4.1		2.3
Green Ext Time (p_c), s	0.1	6.6				6.6		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			3.6					
HCM 2010 LOS			A					
<b>Notes</b>								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary  
 11: Alhambra Dr & Covell Blvd

Existing Conditions  
 AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑	↑	↑		
Volume (veh/h)	595	99	4	353	176	16		
Number	2	12	1	6	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	1863	1863	1520	1845	1863	1900		
Adj Flow Rate, veh/h	620	0	4	368	183	0		
Adj No. of Lanes	2	1	1	1	0	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	25	3	0	0		
Cap, veh/h	1481	663	8	1014	241	0		
Arrive On Green	0.42	0.00	0.01	0.55	0.14	0.00		
Sat Flow, veh/h	3632	1583	1448	1845	1765	0		
Grp Volume(v), veh/h	620	0	4	368	184	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1448	1845	1775	0		
Q Serve(g_s), s	3.9	0.0	0.1	3.6	3.2	0.0		
Cycle Q Clear(g_c), s	3.9	0.0	0.1	3.6	3.2	0.0		
Prop In Lane		1.00	1.00		0.99	0.00		
Lane Grp Cap(c), veh/h	1481	663	8	1014	242	0		
V/C Ratio(X)	0.42	0.00	0.51	0.36	0.76	0.00		
Avail Cap(c_a), veh/h	2167	970	364	1130	585	0		
HCM Platoon Ratio	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	0.00		
Uniform Delay (d), s/veh	6.5	0.0	15.8	4.0	13.2	0.0		
Incr Delay (d2), s/veh	0.3	0.0	42.4	0.4	4.9	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.1	1.8	1.9	0.0		
LnGrp Delay(d),s/veh	6.9	0.0	58.2	4.4	18.1	0.0		
LnGrp LOS	A		E	A	B			
Approach Vol, veh/h	620			372	184			
Approach Delay, s/veh	6.9			5.0	18.1			
Approach LOS	A			A	B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	4.2	18.8		8.8		23.0		
Change Period (Y+Rc), s	4.0	5.5		4.5		5.5		
Max Green Setting (Gmax), s	19.5	19.5		10.5		19.5		
Max Q Clear Time (g_c+1), s	5.9	5.9		5.2		5.6		
Green Ext Time (p_c), s	0.0	7.4		0.2		7.5		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			8.0					
HCM 2010 LOS			A					
<b>Notes</b>								
User approved pedestrian interval to be less than phase max green.								

Intersection													
Int Delay, s/veh	1.3												

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	653	30	1	10	518	0	35	0	40	0	0	1
Conflicting Peds, #/hr	0	0	7	0	0	0	16	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	3	2	10	4	2	2	2	4	2	2	2
Mvmt Flow	0	680	31	1	10	540	0	36	0	42	0	0	1



















Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	540	0	0	561	711	0	0	989	1259	372	903	1274	277
Stage 1	-	-	-	-	-	-	-	696	696	-	563	563	-
Stage 2	-	-	-	-	-	-	-	293	563	-	340	711	-
Critical Hdwy	4.14	-	-	6.44	4.3	-	-	7.54	6.54	6.98	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.52	2.3	-	-	3.52	4.02	3.34	3.52	4.02	3.32
Pot Cap-1 Maneuver	1025	-	-	633	833	-	-	201	169	620	232	166	720
Stage 1	-	-	-	-	-	-	-	398	441	-	478	507	-
Stage 2	-	-	-	-	-	-	-	691	507	-	648	434	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1019	-	-	794	794	-	-	200	169	612	213	166	716
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	200	169	-	213	166	-
Stage 1	-	-	-	-	-	-	-	398	441	-	478	507	-
Stage 2	-	-	-	-	-	-	-	686	507	-	596	434	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	20.4	10
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	312	1019	-	-	794	-	-	716
HCM Lane V/C Ratio	0.25	-	-	-	0.014	-	-	0.001
HCM Control Delay (s)	20.4	0	-	-	9.6	-	-	10
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1	0	-	-	0	-	-	0

HCM 2010 Signalized Intersection Summary  
 13: Bike Dummy/Wright Blvd & Covell Blvd

Existing Conditions  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	31	529	0	0	512	42	0	0	0	154	0	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	1810	1863	0	0	1845	1900	0	1863	0	1863	0	1863
Adj Flow Rate, veh/h	32	551	0	0	533	0	0	0	0	160	0	0
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	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, %	5	2	0	0	3	3	0	2	0	2	0	2
Cap, veh/h	65	2062	0	0	1545	0	0	5	0	465	0	0
Arrive On Green	0.04	0.58	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.16	0.00	0.00
Sat Flow, veh/h	1723	3632	0	0	3689	0	0	-74510	0	1774	160	
Grp Volume(v), veh/h	32	551	0	0	533	0	0	0	0	160	0.0	
Grp Sat Flow(s),veh/h/ln	1723	1770	0	0	1752	0	0	1863	0	1774	A	
Q Serve(g_s), s	0.7	3.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	5.8		
Cycle Q Clear(g_c), s	0.7	3.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	5.8		
Prop In Lane	1.00		0.00	0.00		0.00	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	65	2062	0	0	1545	0	0	5	0	0		
V/C Ratio(X)	0.49	0.27	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00		
Avail Cap(c_a), veh/h	270	2215	0	0	2194	0	0	534	0	0		
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	1.00	0.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	18.1	4.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	5.7	0.1	0.0	0.0	0.3	0.0	0.0	0.0	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		
%ile BackOfQ(-26165%),veh/ln	0.4	1.4	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0		
LnGrp Delay(d),s/veh	23.8	4.1	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0		
LnGrp LOS	C	A			A							
Approach Vol, veh/h		583			533			0				
Approach Delay, s/veh		5.2			7.4			0.0				
Approach LOS		A			A							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		28.3			5.4	22.9	10.0	0.0				
Change Period (Y+Rc), s		6.0			4.0	6.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0			6.0	24.0	6.0	11.0				
Max Q Clear Time (g_c+I1), s		5.0			2.7	5.8	7.8	0.0				
Green Ext Time (p_c), s		11.3			0.0	10.9	0.0	0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			5.4									
HCM 2010 LOS			A									

**Intersection**

Int Delay, s/veh 1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	534	15	15	637	36	26
Conflicting Peds, #/hr	0	5	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	556	16	16	664	38	27

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	572
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	997
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	997
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	17.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	356	-	-	997	-
HCM Lane V/C Ratio	0.181	-	-	0.016	-
HCM Control Delay (s)	17.3	-	-	8.7	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.7	-	-	0	-

Intersection														
Int Delay, s/veh	1.2													

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	2	516	13	27	646	0	28	1	32	1	0	16
Conflicting Peds, #/hr	0	0	0	7	0	0	11	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	Free	-	-	None	-	-	Stop
Storage Length	-	125	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	2	538	14	28	673	0	29	1	33	1	0	17













Major/Minor	Major1				Major2			Minor1			Minor2		
Conflicting Flow All	508	673	0	0	551	0	0	944	1280	276	1005	1286	343
Stage 1	-	-	-	-	-	-	-	551	551	-	729	729	-
Stage 2	-	-	-	-	-	-	-	393	729	-	276	557	-
Critical Hdwy	6.44	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	684	914	-	-	1015	-	0	217	165	721	196	163	653
Stage 1	-	-	-	-	-	-	0	486	514	-	380	426	-
Stage 2	-	-	-	-	-	-	0	603	426	-	707	510	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	811	811	-	-	1015	-	-	206	160	721	182	159	649
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	206	160	-	182	159	-
Stage 1	-	-	-	-	-	-	-	486	514	-	380	414	-
Stage 2	-	-	-	-	-	-	-	568	414	-	673	510	-

Approach	EB				WB			NB			SB		
HCM Control Delay, s	0.1				0.3			18.6			10.4		
HCM LOS								C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	327	811	-	-	1015	-	690
HCM Lane V/C Ratio	0.194	0.004	-	-	0.028	-	0.026
HCM Control Delay (s)	18.6	9.5	-	-	8.6	-	10.4
HCM Lane LOS	C	A	-	-	A	-	B
HCM 95th %tile Q(veh)	0.7	0	-	-	0.1	-	0.1

HCM 2010 Signalized Intersection Summary  
 16: Birch Ln/Bike lane & Covell Blvd

Existing Conditions  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑		↑		↑		↑	
Volume (veh/h)	0	491	72	53	633	0	71	0	27	0	0	0
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		0.96	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	0	1845	1863	1863	1863	0	1863	0	1863	0	1863	0
Adj Flow Rate, veh/h	0	511	75	55	659	0	74	0	28	0	0	0
Adj No. of Lanes	0	2	1	1	2	0	1	0	1	0	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, %	0	3	2	2	2	0	2	0	2	0	2	0
Cap, veh/h	0	1634	710	110	2364	0	92	0	0	0	7	0
Arrive On Green	0.00	0.47	0.47	0.06	0.67	0.00	0.05	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3597	1523	1774	3632	0	1774	74		0	-74510	0
Grp Volume(v), veh/h	0	511	75	55	659	0	74	28.2		0	0	0
Grp Sat Flow(s),veh/h/ln	0	1752	1523	1774	1770	0	1774	C		0	1863	0
Q Serve(g_s), s	0.0	2.6	0.8	0.9	2.2	0.0	1.2			0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	2.6	0.8	0.9	2.2	0.0	1.2			0.0	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00	1.00			0.00		0.00
Lane Grp Cap(c), veh/h	0	1634	710	110	2364	0	92			0	7	0
V/C Ratio(X)	0.00	0.31	0.11	0.50	0.28	0.00	0.80			0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	3435	1493	994	3221	0	1615			0	1369	0
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)	0.00	1.00	1.00	1.00	1.00	0.00	1.00			0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	4.8	4.3	13.0	1.9	0.0	13.4			0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	3.5	0.1	0.0	14.8			0.0	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
%ile BackOfQ(-26165%),veh/ln	0.0	1.2	0.3	0.5	1.0	0.0	0.9			0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	4.9	4.3	16.5	2.0	0.0	28.2			0.0	0.0	0.0
LnGrp LOS		A	A	B	A		C					
Approach Vol, veh/h		586			714							0
Approach Delay, s/veh		4.8			3.1							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	5.8	17.3	5.5	0.0		23.1						
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0		4.0						
Max Green Setting (Gmax), s	16.0	28.0	26.0	21.0		26.0						
Max Q Clear Time (g_c+I1), s	2.9	4.6	3.2	0.0		4.2						
Green Ext Time (p_c), s	0.1	8.7	0.2	0.0		8.5						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			5.2									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary  
 17: Pole Line Rd & Covell Blvd

Existing Conditions  
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	174	397	115	54	537	113	112	124	39	127	282	309
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		0.87	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	1863	1855	1900	1827	1863	1900	1845	1712	1863	1845	1827	1863
Adj Flow Rate, veh/h	181	414	0	56	559	0	117	129	41	132	294	322
Adj No. of Lanes	1	2	0	1	2	0	1	1	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, %	2	2	2	4	2	2	3	11	2	3	4	2
Cap, veh/h	233	1229	0	86	945	0	153	383	308	170	426	362
Arrive On Green	0.13	0.35	0.00	0.05	0.27	0.00	0.09	0.22	0.22	0.10	0.23	0.23
Sat Flow, veh/h	1774	3616	0	1740	3632	0	1757	1712	1377	1757	1827	1551
Grp Volume(v), veh/h	181	414	0	56	559	0	117	129	41	132	294	322
Grp Sat Flow(s),veh/h/ln	1774	1762	0	1740	1770	0	1757	1712	1377	1757	1827	1551
Q Serve(g_s), s	6.3	5.5	0.0	2.0	8.8	0.0	4.2	4.0	1.5	4.7	9.4	12.8
Cycle Q Clear(g_c), s	6.3	5.5	0.0	2.0	8.8	0.0	4.2	4.0	1.5	4.7	9.4	12.8
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	233	1229	0	86	945	0	153	383	308	170	426	362
V/C Ratio(X)	0.78	0.34	0.00	0.65	0.59	0.00	0.77	0.34	0.13	0.78	0.69	0.89
Avail Cap(c_a), veh/h	722	1654	0	572	1661	0	440	402	323	330	429	364
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	15.4	0.0	29.8	20.4	0.0	28.6	20.8	19.9	28.2	22.4	23.7
Incr Delay (d2), s/veh	5.5	0.2	0.0	8.1	0.6	0.0	7.8	0.5	0.2	7.5	4.6	22.6
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(-26165%),veh/ln	2.7	0.0	1.2	4.3	0.0	2.3	2.0	0.6	2.6	5.3	7.7	
LnGrp Delay(d),s/veh	32.4	15.5	0.0	38.0	21.0	0.0	36.4	21.4	20.1	35.7	27.0	46.3
LnGrp LOS	C	B		D	C		D	C	C	D	C	D
Approach Vol, veh/h		595			615			287			748	
Approach Delay, s/veh		20.6			22.5			27.3			36.8	
Approach LOS		C			C			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	12.4	22.1	9.5	19.9	7.2	27.3	10.2	19.3				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	20.0	30.0	16.0	15.0	21.0	30.0	12.0	15.0				
Max Q Clear Time (g_c+1), s	10.3	10.8	6.2	14.8	4.0	7.5	6.7	6.0				
Green Ext Time (p_c), s	0.4	6.3	0.2	0.1	0.1	6.7	0.1	2.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				27.4								
HCM 2010 LOS				C								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												



**Intersection**

Int Delay, s/veh 1.9

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Vol, veh/h	708	96	1	109	784	43	73
Conflicting Peds, #/hr	0	5	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	-	None	-	Yield
Storage Length	-	-	-	200	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	5	2
Mvmt Flow	738	100	1	114	817	45	76



















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	814
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	6.44
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.52
Pot Cap-1 Maneuver	-	-	437
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	854
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	20.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	356	-	-	854	-
HCM Lane V/C Ratio	0.339	-	-	0.134	-
HCM Control Delay (s)	20.2	-	-	9.9	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	1.5	-	-	0.5	-

HCM 2010 Signalized Intersection Summary  
 19: J St & Covell Blvd

Existing Conditions  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	700	152	46	768	0	146	0	83	2	0	1
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	1863	1853	1900	1743	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	2	729	0	48	800	0	152	0	0	2	0	0
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	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, %	2	2	2	9	2	2	2	2	2	2	2	2
Cap, veh/h	4	1440	0	69	1587	0	208	0	0	4	0	0
Arrive On Green	0.00	0.41	0.00	0.04	0.45	0.00	0.12	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1774	3613	0	1660	3632	0	1774	0	0	1774	0	0
Grp Volume(v), veh/h	2	729	0	48	800	0	152	0	0	2	0	0
Grp Sat Flow(s),veh/h/ln	1774	1760	0	1660	1770	0	1774	0	0	1774	0	0
Q Serve(g_s), s	0.0	6.1	0.0	1.1	6.4	0.0	3.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.1	0.0	1.1	6.4	0.0	3.3	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	4	1440	0	69	1587	0	208	0	0	4	0	0
V/C Ratio(X)	0.45	0.51	0.00	0.70	0.50	0.00	0.73	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	179	3117	0	252	3133	0	1256	0	0	942	0	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)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.7	8.7	0.0	18.7	7.8	0.0	16.8	0.0	0.0	19.7	0.0	0.0
Incr Delay (d2), s/veh	56.8	0.1	0.0	4.7	0.1	0.0	1.8	0.0	0.0	23.6	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(-26165%),veh/ln	0.1	3.0	0.0	0.6	3.1	0.0	1.7	0.0	0.0	0.1	0.0	0.0
LnGrp Delay(d),s/veh	76.5	8.8	0.0	23.4	7.9	0.0	18.7	0.0	0.0	43.3	0.0	0.0
LnGrp LOS	E	A		C	A		B			D		
Approach Vol, veh/h		731			848			152				2
Approach Delay, s/veh		9.0			8.7			18.7				43.3
Approach LOS		A			A			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	5.6	21.2		4.1	4.1	22.7		8.6				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	6.0	35.0		21.0	4.0	35.0		28.0				
Max Q Clear Time (g_c+I1), s	3.1	8.1		2.0	2.0	8.4		5.3				
Green Ext Time (p_c), s	0.0	8.1		0.0	0.0	8.0		0.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			9.8									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary  
20: F St & Covell Blvd

Existing Conditions  
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Volume (veh/h)	39	540	116	229	604	82	43	75	147	168	178	68
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	1863	1863	1900	1845	1863	1900	1845	1851	1900	1863	1843	1900
Adj Flow Rate, veh/h	41	562	0	239	629	0	45	78	0	175	185	0
Adj No. of Lanes	1	2	0	2	2	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, %	2	2	2	3	2	2	3	2	2	2	2	2
Cap, veh/h	77	1041	0	378	1279	0	82	227	0	237	387	0
Arrive On Green	0.04	0.29	0.00	0.11	0.36	0.00	0.05	0.12	0.00	0.13	0.21	0.00
Sat Flow, veh/h	1774	3632	0	3408	3632	0	1757	1851	0	1774	1843	0
Grp Volume(v), veh/h	41	562	0	239	629	0	45	78	0	175	185	0
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1704	1770	0	1757	1851	0	1774	1843	0
Q Serve(g_s), s	1.1	6.7	0.0	3.4	6.9	0.0	1.3	1.9	0.0	4.8	4.4	0.0
Cycle Q Clear(g_c), s	1.1	6.7	0.0	3.4	6.9	0.0	1.3	1.9	0.0	4.8	4.4	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	77	1041	0	378	1279	0	82	227	0	237	387	0
V/C Ratio(X)	0.53	0.54	0.00	0.63	0.49	0.00	0.55	0.34	0.00	0.74	0.48	0.00
Avail Cap(c_a), veh/h	920	2823	0	1767	2823	0	911	959	0	920	955	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)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.5	14.9	0.0	21.3	12.4	0.0	23.4	20.2	0.0	20.9	17.4	0.0
Incr Delay (d2), s/veh	2.1	0.2	0.0	0.7	0.1	0.0	5.7	0.9	0.0	5.4	1.1	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(-26165%),veh/ln	3.3	0.0	1.6	3.3	0.0	0.7	1.0	0.0	2.7	2.4	0.0	
LnGrp Delay(d),s/veh	25.6	15.0	0.0	22.0	12.5	0.0	29.1	21.0	0.0	26.2	18.5	0.0
LnGrp LOS	C	B		C	B		C	C		C	B	
Approach Vol, veh/h		603			868			123			360	
Approach Delay, s/veh		15.7			15.1			24.0			22.3	
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	9.6	19.7	6.3	14.5	6.2	23.1	10.7	10.2				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	20.0	40.0	26.0	26.0	26.0	40.0	26.0	26.0				
Max Q Clear Time (g_c+1), s	11.4	8.7	3.3	6.4	3.1	8.9	6.8	3.9				
Green Ext Time (p_c), s	0.4	6.0	0.1	1.6	0.0	6.0	0.6	1.7				

Intersection Summary

HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B

Intersection																
Intersection Delay, s/veh10.4																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	79	69	27	0	37	152	4	0	49	113	37	0	2	68	120
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	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	82	72	28	0	39	158	4	0	51	118	39	0	2	71	125
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10	10.6	10.3	10.6
HCM LOS	A	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	75%	0%	72%	0%	97%	0%	36%
Vol Right, %	0%	25%	0%	28%	0%	3%	0%	64%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	150	79	96	37	156	2	188
LT Vol	49	0	79	0	37	0	2	0
Through Vol	0	113	0	69	0	152	0	68
RT Vol	0	37	0	27	0	4	0	120
Lane Flow Rate	51	156	82	100	39	162	2	196
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.091	0.25	0.148	0.161	0.069	0.268	0.004	0.3
Departure Headway (Hd)	6.439	5.759	6.493	5.788	6.463	5.939	6.471	5.513
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	557	623	553	620	555	606	554	652
Service Time	4.171	3.491	4.224	3.519	4.194	3.67	4.202	3.244
HCM Lane V/C Ratio	0.092	0.25	0.148	0.161	0.07	0.267	0.004	0.301
HCM Control Delay	9.8	10.4	10.4	9.6	9.7	10.8	9.2	10.6
HCM Lane LOS	A	B	B	A	A	B	A	B
HCM 95th-tile Q	0.3	1	0.5	0.6	0.2	1.1	0	1.3

**Intersection**

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	31	0	15	1	4	2	1	42	136	2	1	212	115
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	0	-	175	-	-	-	-	150	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	0	16	1	4	2	1	44	142	2	1	221	120

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	518	518	286	523	577	143	356	343	0	0	144	0	0
Stage 1	285	285	-	230	232	-	-	-	-	-	-	-	-
Stage 2	233	233	-	293	345	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	-	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	-	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	468	462	753	465	427	905	-	1216	-	-	1438	-	-
Stage 1	722	676	-	773	713	-	-	-	-	-	-	-	-
Stage 2	770	712	-	715	636	-	-	-	-	-	-	-	-
Platoon blocked, %													
Mov Cap-1 Maneuver	462	461	750	454	426	905	~ -45	~ -45	-	-	1438	-	-
Mov Cap-2 Maneuver	462	461	-	454	426	-	-	-	-	-	-	-	-
Stage 1	722	674	-	773	713	-	-	-	-	-	-	-	-
Stage 2	764	712	-	698	634	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	12.2		0
HCM LOS	B	B		

























Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	+	-	-	462	750	507	1438	-	-
HCM Lane V/C Ratio	-	-	-	0.07	0.021	0.014	0.001	-	-
HCM Control Delay (s)	-	-	-	13.4	9.9	12.2	7.5	-	-
HCM Lane LOS	-	-	-	B	A	B	A	-	-
HCM 95th %tile Q(veh)	-	-	-	0.2	0.1	0	0	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 2010 Signalized Intersection Summary  
 34: Cowell Blvd & Pole Line Rd/Lillard Dr

Existing Conditions  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	114	149	187	191	190	14	111	44	137	12	79	166
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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	119	155	0	199	198	0	116	46	0	12	82	0
Adj No. of Lanes	1	1	1	1	2	1	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	345	294	219	797	357	145	341	290	22	213	181
Arrive On Green	0.08	0.19	0.00	0.12	0.23	0.00	0.08	0.18	0.00	0.01	0.11	0.00
Sat Flow, veh/h	1774	1863	1583	1774	3539	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	119	155	0	199	198	0	116	46	0	12	82	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1770	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.1	2.4	0.0	3.6	1.5	0.0	2.1	0.7	0.0	0.2	1.3	0.0
Cycle Q Clear(g_c), s	2.1	2.4	0.0	3.6	1.5	0.0	2.1	0.7	0.0	0.2	1.3	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	149	345	294	219	797	357	145	341	290	22	213	181
V/C Ratio(X)	0.80	0.45	0.00	0.91	0.25	0.00	0.80	0.13	0.00	0.54	0.39	0.00
Avail Cap(c_a), veh/h	219	922	784	219	1314	588	219	807	686	219	807	686
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.5	11.7	0.0	14.0	10.3	0.0	14.6	11.1	0.0	15.9	13.3	0.0
Incr Delay (d2), s/veh	12.0	0.3	0.0	36.4	0.1	0.0	11.6	0.1	0.0	18.4	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(-26165%),veh/ln	1.5	1.2	0.0	3.9	0.7	0.0	1.5	0.4	0.0	0.2	0.7	0.0
LnGrp Delay(d),s/veh	26.6	12.0	0.0	50.4	10.3	0.0	26.2	11.1	0.0	34.2	13.7	0.0
LnGrp LOS	C	B		D	B		C	B		C	B	
Approach Vol, veh/h		274			397			162			94	
Approach Delay, s/veh		18.4			30.4			21.9			16.3	
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	4.4	9.9	8.0	10.0	6.6	7.7	6.7	11.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	14.0	4.0	16.0	4.0	14.0	4.0	12.0				
Max Q Clear Time (g_c+I1), s	2.2	2.7	5.6	4.4	4.1	3.3	4.1	3.5				
Green Ext Time (p_c), s	0.0	0.3	0.0	1.2	0.0	0.3	0.0	1.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			23.9									
HCM 2010 LOS			C									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary  
35: Valdora St & Cowell Blvd

Existing Conditions  
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	243	12	19	413	28	65	8	42	9	4	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		0.94	1.00		0.97	1.00		0.90	1.00		0.46
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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	43	253	12	20	430	29	68	8	44	9	4	65
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	668	533	36	634	521	96	334	254	17	6	96
Arrive On Green	0.04	0.36	0.36	0.02	0.34	0.34	0.05	0.18	0.18	0.01	0.13	0.13
Sat Flow, veh/h	1774	1863	1487	1774	1863	1532	1774	1863	1417	1774	44	715
Grp Volume(v), veh/h	43	253	12	20	430	29	68	8	44	9	0	69
Grp Sat Flow(s),veh/h/ln	1774	1863	1487	1774	1863	1532	1774	1863	1417	1774	0	759
Q Serve(g_s), s	0.9	3.8	0.2	0.4	7.5	0.5	1.4	0.1	1.0	0.2	0.0	3.3
Cycle Q Clear(g_c), s	0.9	3.8	0.2	0.4	7.5	0.5	1.4	0.1	1.0	0.2	0.0	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.94
Lane Grp Cap(c), veh/h	68	668	533	36	634	521	96	334	254	17	0	102
V/C Ratio(X)	0.63	0.38	0.02	0.56	0.68	0.06	0.71	0.02	0.17	0.53	0.00	0.67
Avail Cap(c_a), veh/h	186	1490	1189	186	1490	1225	186	334	254	186	0	119
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	0.00	1.00
Uniform Delay (d), s/veh	18.1	9.1	7.9	18.5	10.8	8.5	17.7	12.9	13.3	18.8	0.0	15.7
Incr Delay (d2), s/veh	9.3	0.1	0.0	13.2	0.5	0.0	9.4	0.0	0.1	23.5	0.0	7.8
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(-26165%),veh/ln	2.0	0.1	0.3	3.9	0.2	0.9	0.1	0.4	0.2	0.0	0.0	0.9
LnGrp Delay(d),s/veh	27.3	9.2	7.9	31.7	11.3	8.5	27.1	12.9	13.4	42.3	0.0	23.5
LnGrp LOS	C	A	A	C	B	A	C	B	B	D		C
Approach Vol, veh/h		308			479			120			78	
Approach Delay, s/veh		11.7			12.0			21.1			25.6	
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	4.8	18.2	6.1	9.1	5.5	17.5	4.4	10.8				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	30.5	30.5	4.0	6.0	4.0	30.5	4.0	6.0				
Max Q Clear Time (g_c+1), s	12.4	5.8	3.4	5.3	2.9	9.5	2.2	3.0				
Green Ext Time (p_c), s	0.0	2.9	0.0	0.0	0.0	2.8	0.0	0.1				

Intersection Summary

HCM 2010 Ctrl Delay	14.1
HCM 2010 LOS	B

Notes

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

HCM 2010 Signalized Intersection Summary  
36: Drew Ave & Cowell Blvd

Existing Conditions  
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	85	312	17	9	478	73	78	3	19	8	0	17
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		0.97	1.00		0.97	1.00		0.88	1.00		0.46
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	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	89	325	18	9	498	76	81	3	20	8	0	18
Adj No. of Lanes	1	1	0	1	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	849	47	21	798	661	118	30	201	19	195	77
Arrive On Green	0.07	0.49	0.49	0.01	0.43	0.43	0.07	0.16	0.16	0.01	0.00	0.10
Sat Flow, veh/h	1774	1745	97	1774	1863	1543	1774	187	1248	1774	1863	733
Grp Volume(v), veh/h	89	0	343	9	498	76	81	0	23	8	0	18
Grp Sat Flow(s),veh/h/ln	1774	0	1842	1774	1863	1543	1774	0	1436	1774	1863	733
Q Serve(g_s), s	2.5	0.0	6.0	0.3	10.7	1.5	2.3	0.0	0.7	0.2	0.0	1.2
Cycle Q Clear(g_c), s	2.5	0.0	6.0	0.3	10.7	1.5	2.3	0.0	0.7	0.2	0.0	1.2
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	124	0	896	21	798	661	118	0	231	19	195	77
V/C Ratio(X)	0.72	0.00	0.38	0.43	0.62	0.12	0.69	0.00	0.10	0.43	0.00	0.23
Avail Cap(c_a), veh/h	379	0	1074	276	1086	899	276	0	231	276	290	114
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(l)	1.00	0.00	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	23.4	0.0	8.3	25.3	11.5	8.8	23.5	0.0	18.4	25.3	0.0	21.1
Incr Delay (d2), s/veh	7.5	0.0	0.6	13.5	1.7	0.2	6.8	0.0	0.4	14.9	0.0	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(-26165%),veh/ln	0.0	0.0	3.2	0.2	5.8	0.7	1.3	0.0	0.3	0.2	0.0	0.3
LnGrp Delay(d),s/veh	30.9	0.0	8.9	38.8	13.2	9.0	30.3	0.0	18.8	40.2	0.0	22.7
LnGrp LOS	C		A	D	B	A	C		B	D		C
Approach Vol, veh/h		432			583			104			26	
Approach Delay, s/veh		13.5			13.0			27.8			28.1	
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	4.6	30.0	7.4	9.4	7.6	27.0	4.5	12.3				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	30.0	30.0	8.0	8.0	11.0	30.0	8.0	8.0				
Max Q Clear Time (g_c+1), s	12.3	8.0	4.3	3.2	4.5	12.7	2.2	2.7				
Green Ext Time (p_c), s	0.0	10.8	0.0	0.0	0.1	9.3	0.0	0.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			14.9									
HCM 2010 LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												



HCM 2010 Signalized Intersection Summary  
 37: Research Park Dr & Cowell Blvd

Existing Conditions  
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	163	423	156	52	506	18	57	5	31	13	21	113
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		0.86	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	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	170	441	162	54	527	0	59	5	32	14	22	118
Adj No. of Lanes	1	1	1	1	2	0	2	2	0	1	2	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	200	1184	987	86	2023	0	123	281	216	28	245	211
Arrive On Green	0.11	0.64	0.64	0.05	0.57	0.00	0.04	0.16	0.16	0.02	0.14	0.14
Sat Flow, veh/h	1774	1863	1553	1774	3632	0	3442	1770	1360	1774	1770	1523
Grp Volume(v), veh/h	170	441	162	54	527	0	59	5	32	14	22	118
Grp Sat Flow(s),veh/h/ln	1774	1863	1553	1774	1770	0	1721	1770	1360	1774	1770	1523
Q Serve(g_s), s	11.3	13.6	5.1	3.6	9.0	0.0	2.0	0.3	2.4	0.9	1.3	8.7
Cycle Q Clear(g_c), s	11.3	13.6	5.1	3.6	9.0	0.0	2.0	0.3	2.4	0.9	1.3	8.7
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	200	1184	987	86	2023	0	123	281	216	28	245	211
V/C Ratio(X)	0.85	0.37	0.16	0.63	0.26	0.00	0.48	0.02	0.15	0.51	0.09	0.56
Avail Cap(c_a), veh/h	325	1184	987	251	2023	0	574	457	351	296	457	394
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)	0.84	0.84	0.84	0.90	0.90	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	10.4	8.9	56.0	12.9	0.0	56.7	42.6	43.5	58.6	45.1	48.3
Incr Delay (d2), s/veh	9.5	0.8	0.3	6.5	0.3	0.0	2.9	0.0	0.3	13.7	0.2	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(-26165%),veh/ln	7.2	2.2	1.9	4.5	0.0	1.0	0.1	0.9	0.6	0.6	3.8	
LnGrp Delay(d),s/veh	61.8	11.2	9.2	62.5	13.2	0.0	59.6	42.6	43.8	72.3	45.3	50.6
LnGrp LOS	E	B	A	E	B		E	D	D	E	D	D
Approach Vol, veh/h		773			581			96			154	
Approach Delay, s/veh		21.9			17.8			53.5			51.8	
Approach LOS		C			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	9.8	81.3	8.3	20.6	17.5	73.6	5.9	23.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	35.0	20.0	31.0	22.0	30.0	20.0	31.0					
Max Q Clear Time (g_c+1), s	15.6	4.0	10.7	13.3	11.0	2.9	4.4					
Green Ext Time (p_c), s	0.1	7.0	0.1	1.1	0.3	7.0	0.0	1.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			25.2									
HCM 2010 LOS			C									

Intersection									
Intersection Delay, s/veh	9.4								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	68	118	0	82	130	0	164	55
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	71	123	0	85	135	0	171	57
Number of Lanes	0	1	1	0	1	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	8.4	9.4	10.2
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	75%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%
Vol Right, %	25%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	219	68	118	82	130
LT Vol	164	0	0	82	0
Through Vol	0	68	0	0	130
RT Vol	55	0	118	0	0
Lane Flow Rate	228	71	123	85	135
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.311	0.105	0.159	0.138	0.199
Departure Headway (Hd)	4.903	5.359	4.653	5.808	5.303
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	730	666	767	615	674
Service Time	2.948	3.115	2.408	3.563	3.058
HCM Lane V/C Ratio	0.312	0.107	0.16	0.138	0.2
HCM Control Delay	10.2	8.7	8.3	9.5	9.4
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1.3	0.4	0.6	0.5	0.7

**Intersection**

Intersection Delay, s/veh 8.5  
Intersection LOS A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	108	36	1	0	0	77	12	0	10	6	0	0	7	1	110
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	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	113	38	1	0	0	80	13	0	10	6	0	0	7	1	115
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.9	8.4	8.4	8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	97%	100%	87%	0%	1%
Vol Right, %	0%	0%	0%	3%	0%	13%	0%	99%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	6	108	37	0	89	7	111
LT Vol	10	0	108	0	0	0	7	0
Through Vol	0	6	0	36	0	77	0	1
RT Vol	0	0	0	1	0	12	0	110
Lane Flow Rate	10	6	112	39	0	93	7	116
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.017	0.009	0.17	0.053	0	0.127	0.012	0.144
Departure Headway (Hd)	5.791	5.287	5.445	4.924	5.009	4.914	5.694	4.494
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	619	678	660	728	0	731	630	799
Service Time	3.516	3.013	3.165	2.645	2.731	2.636	3.413	2.213
HCM Lane V/C Ratio	0.016	0.009	0.17	0.054	0	0.127	0.011	0.145
HCM Control Delay	8.6	8.1	9.3	7.9	7.7	8.4	8.5	8
HCM Lane LOS	A	A	A	A	N	A	A	A
HCM 95th-tile Q	0.1	0	0.6	0.2	0	0.4	0	0.5

HCM 2010 Signalized Intersection Summary  
40: Pole Line Rd & E 5th St

Existing Conditions  
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Volume (veh/h)	27	89	109	95	177	68	183	235	111	162	315	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	1776	1816	1900	1810	1832	1900	1863	1863	1900	1863	1863	1827
Adj Flow Rate, veh/h	28	93	0	99	184	0	191	245	0	169	328	0
Adj No. of Lanes	1	2	0	1	2	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, %	7	3	3	5	4	4	2	2	2	2	2	4
Cap, veh/h	35	459	0	123	538	0	515	776	0	580	776	647
Arrive On Green	0.02	0.13	0.00	0.07	0.15	0.00	0.42	0.42	0.00	0.42	0.42	0.00
Sat Flow, veh/h	1691	3540	0	1723	3572	0	1045	1863	0	1128	1863	1553
Grp Volume(v), veh/h	28	93	0	99	184	0	191	245	0	169	328	0
Grp Sat Flow(s),veh/h/ln	1691	1725	0	1723	1740	0	1045	1863	0	1128	1863	1553
Q Serve(g_s), s	0.6	0.8	0.0	1.9	1.6	0.0	5.4	3.0	0.0	4.1	4.3	0.0
Cycle Q Clear(g_c), s	0.6	0.8	0.0	1.9	1.6	0.0	9.7	3.0	0.0	7.1	4.3	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	35	459	0	123	538	0	515	776	0	580	776	647
V/C Ratio(X)	0.81	0.20	0.00	0.81	0.34	0.00	0.37	0.32	0.00	0.29	0.42	0.00
Avail Cap(c_a), veh/h	493	2616	0	553	2538	0	720	1141	0	801	1141	951
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.7	13.2	0.0	15.7	12.9	0.0	10.5	6.7	0.0	9.1	7.1	0.0
Incr Delay (d2), s/veh	15.0	0.1	0.0	4.6	0.1	0.0	0.2	0.1	0.0	0.1	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(-26165%),veh/ln	0.4	0.0	1.1	0.8	0.0	1.6	1.5	0.0	1.2	2.2	0.0	
LnGrp Delay(d),s/veh	31.7	13.3	0.0	20.3	13.1	0.0	10.7	6.8	0.0	9.2	7.2	0.0
LnGrp LOS	C	B		C	B		B	A		A	A	
Approach Vol, veh/h		121			283			436			497	
Approach Delay, s/veh		17.6			15.6			8.5			7.9	
Approach LOS		B			B			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4			18.3	5.7	10.3		18.3				
Change Period (Y+Rc), s	4.0	* 5		4.0	5.0	5.0		4.0				
Max Green Setting (Gmax), s	13	* 26		21.0	10.0	25.0		21.0				
Max Q Clear Time (g_c+1), s	13	2.8		9.1	2.6	3.6		11.7				
Green Ext Time (p_c), s	0.1	1.2		2.8	0.0	1.2		2.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			10.6									
HCM 2010 LOS			B									
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary  
41: L St & E 5th St

Existing Conditions  
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	32	152	66	50	332	49	54	67	33	61	149	73
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		0.97	1.00		0.91	1.00		0.83	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	1863	1789	1900	1727	1863	1863	1863	1863	1667	1863	1863	1863
Adj Flow Rate, veh/h	33	158	69	52	346	51	56	70	34	64	155	76
Adj No. of Lanes	1	1	0	1	1	1	1	1	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, %	2	8	8	10	2	2	2	2	14	2	2	2
Cap, veh/h	69	308	134	93	522	406	106	285	180	117	296	239
Arrive On Green	0.04	0.26	0.26	0.06	0.28	0.28	0.06	0.15	0.15	0.07	0.16	0.16
Sat Flow, veh/h	1774	1170	511	1645	1863	1448	1774	1863	1181	1774	1863	1505
Grp Volume(v), veh/h	33	0	227	52	346	51	56	70	34	64	155	76
Grp Sat Flow(s),veh/h/ln	1774	0	1682	1645	1863	1448	1774	1863	1181	1774	1863	1505
Q Serve(g_s), s	0.7	0.0	4.1	1.1	5.9	0.9	1.1	1.2	0.9	1.2	2.7	1.6
Cycle Q Clear(g_c), s	0.7	0.0	4.1	1.1	5.9	0.9	1.1	1.2	0.9	1.2	2.7	1.6
Prop In Lane	1.00		0.30	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	69	0	442	93	522	406	106	285	180	117	296	239
V/C Ratio(X)	0.48	0.00	0.51	0.56	0.66	0.13	0.53	0.25	0.19	0.55	0.52	0.32
Avail Cap(c_a), veh/h	397	0	1436	369	1069	831	397	1356	860	397	835	674
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	16.8	0.0	11.2	16.4	11.4	9.6	16.3	13.3	13.2	16.2	13.8	13.3
Incr Delay (d2), s/veh	1.9	0.0	0.3	2.0	0.5	0.1	1.5	0.2	0.2	1.5	0.5	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(-26165%),veh/ln	0.0	1.9	0.5	3.1	0.4	0.6	0.6	0.3	0.7	1.4	0.7	
LnGrp Delay(d),s/veh	18.7	0.0	11.6	18.4	11.9	9.6	17.8	13.5	13.4	17.7	14.3	13.6
LnGrp LOS	B		B	B	B	A	B	B	B	B	B	B
Approach Vol, veh/h		260			449			160			295	
Approach Delay, s/veh		12.5			12.4			15.0			14.9	
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	6.0	13.9	6.1	9.7	5.4	14.5	6.3	9.5				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	30.5	30.5	8.0	16.0	8.0	20.5	8.0	26.0				
Max Q Clear Time (g_c+1), s	6.1	6.1	3.1	4.7	2.7	7.9	3.2	3.2				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.8	0.0	2.0	0.0	1.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			13.4									
HCM 2010 LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary  
57: Pole Line Rd & Bike Dummy/Loyola Dr

Existing 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	82	0	86	0	254	31	59	365	0
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		0.87	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	1863	0	1863	0	1863	0	1843	1900	1810	1845	0
Adj Flow Rate, veh/h	0	0	0	85	0	90	0	265	32	61	380	0
Adj No. of Lanes	0	1	0	1	0	1	0	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, %	0	2	0	2	0	2	0	3	3	5	3	0
Cap, veh/h	0	6	0	104	0	0	0	755	91	90	1206	0
Arrive On Green	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.48	0.48	0.05	0.65	0.00
Sat Flow, veh/h	0-55882		0	1774	85		0	1585	191	1723	1845	0
Grp Volume(v), veh/h	0	0	0	85	20.8		0	0	297	61	380	0
Grp Sat Flow(s),veh/h/ln	0	1863	0	1774	C		0	0	1777	1723	1845	0
Q Serve(g_s), s	0.0	0.0	0.0	1.5			0.0	0.0	3.4	1.1	2.9	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.5			0.0	0.0	3.4	1.1	2.9	0.0
Prop In Lane	0.00		0.00	1.00			0.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	0	6	0	104			0	0	846	90	1206	0
V/C Ratio(X)	0.00	0.00	0.00	0.82			0.00	0.00	0.35	0.68	0.32	0.00
Avail Cap(c_a), veh/h	0	408	0	322			0	0	1390	216	1444	0
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)	0.00	0.00	0.00	1.00			0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	14.9			0.0	0.0	5.3	14.9	2.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	5.9			0.0	0.0	0.1	3.3	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
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.0	0.9			0.0	0.0	1.6	0.6	1.4	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	20.8			0.0	0.0	5.4	18.1	2.5	0.0
LnGrp LOS				C					A	B	A	
Approach Vol, veh/h		0						297			441	
Approach Delay, s/veh		0.0						5.4			4.6	
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	5.7	20.2	6.1	0.0		25.9						
Change Period (Y+Rc), s	4.0	5.0	* 4.2	3.0		5.0						
Max Green Setting (Gmax), s	1.0	25.0	* 5.8	7.0		25.0						
Max Q Clear Time (g_c+I), s	1.0	5.4	3.5	0.0		4.9						
Green Ext Time (p_c), s	0.0	2.8	0.0	0.0		2.8						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				6.6								
HCM 2010 LOS				A								
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

**Intersection**

Intersection Delay, s/veh 7.7  
Intersection LOS A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	5	13	0	21	11	3	0	7	74	3	0	3	108	26
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	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
Mvmt Flow	0	11	5	14	0	22	11	3	0	7	77	3	0	3	113	27
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	7.4	7.8	7.7	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	38%	60%	2%
Vol Thru, %	88%	17%	31%	79%
Vol Right, %	4%	45%	9%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	84	29	35	137
LT Vol	7	11	21	3
Through Vol	74	5	11	108
RT Vol	3	13	3	26
Lane Flow Rate	88	30	36	143
Geometry Grp	1	1	1	1
Degree of Util (X)	0.101	0.036	0.046	0.159
Departure Headway (Hd)	4.153	4.282	4.535	4.006
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	853	841	794	886
Service Time	2.227	2.283	2.536	2.072
HCM Lane V/C Ratio	0.103	0.036	0.045	0.161
HCM Control Delay	7.7	7.4	7.8	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0.1	0.6

**Intersection**

Int Delay, s/veh 0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	15	29	20	301	433	16
Conflicting Peds, #/hr	0	7	0	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	4	3	6	3	4
Mvmt Flow	16	30	21	314	451	17

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	821	466	475 0
Stage 1	466	-	- -
Stage 2	355	-	- -
Critical Hdwy	6.42	6.24	4.13 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.336	2.227 -
Pot Cap-1 Maneuver	344	592	1082 -
Stage 1	632	-	- -
Stage 2	710	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	333	589	1082 -
Mov Cap-2 Maneuver	452	-	- -
Stage 1	628	-	- -
Stage 2	692	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	12.4	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1082	-	534	-	-
HCM Lane V/C Ratio	0.019	-	0.086	-	-
HCM Control Delay (s)	8.4	-	12.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-



**Intersection**

Int Delay, s/veh 3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	36	85	68	139	219	66
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	50	-	-	-	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	89	71	145	228	69

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	514	228	0
Stage 1	228	-	-
Stage 2	286	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	521	811	-
Stage 1	810	-	-
Stage 2	763	-	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	491	811	-
Mov Cap-2 Maneuver	491	-	-
Stage 1	810	-	-
Stage 2	719	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1340	-	491	811	-	-
HCM Lane V/C Ratio	0.053	-	0.076	0.109	-	-
HCM Control Delay (s)	7.8	0	12.9	10	-	-
HCM Lane LOS	A	A	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	0.4	-	-

**Intersection**

Int Delay, s/veh 2.7

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Vol, veh/h	1	8	48	1	60	23	42	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	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	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	1	8	50	1	62	24	44	8

Major/Minor	Minor2		Major1				Major2	
Conflicting Flow All	0	197	49	102	52	0	-	0
Stage 1	0	48	-	-	-	-	-	-
Stage 2	0	149	-	-	-	-	-	-
Critical Hdwy	-	6.42	6.22	-	4.12	-	-	-
Critical Hdwy Stg 1	-	5.42	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.42	-	-	-	-	-	-
Follow-up Hdwy	-	3.518	3.318	-	2.218	-	-	-
Pot Cap-1 Maneuver	0	792	1020	-	1554	-	-	-
Stage 1	0	974	-	-	-	-	-	-
Stage 2	0	879	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	0	792	1020	~ -63	~ -63	-	-	-
Mov Cap-2 Maneuver	0	792	-	-	-	-	-	-
Stage 1	0	974	-	-	-	-	-	-
Stage 2	0	879	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9		0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	+	-	980	-	-
HCM Lane V/C Ratio	-	-	0.06	-	-
HCM Control Delay (s)	-	-	8.9	-	-
HCM Lane LOS	-	-	A	-	-
HCM 95th %tile Q(veh)	-	-	0.2	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 5.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	87	0	5	2	83	52
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	91	0	5	2	86	54

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	91
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1504
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1504
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.3	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	919	-	-	1504	-
HCM Lane V/C Ratio	0.153	-	-	0.003	-
HCM Control Delay (s)	9.6	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

**Intersection**

Int Delay, s/veh 4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	157	6	50	106	0	10
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	164	6	52	110	0	10

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	163	0	440
Stage 1	-	-	107
Stage 2	-	-	333
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1416	-	574
Stage 1	-	-	917
Stage 2	-	-	726
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1416	-	507
Mov Cap-2 Maneuver	-	-	507
Stage 1	-	-	917
Stage 2	-	-	642

Approach	EB	WB	SB
HCM Control Delay, s	7.6	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1416	-	-	-	947
HCM Lane V/C Ratio	0.115	-	-	-	0.011
HCM Control Delay (s)	7.9	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.4	-	-	-	0

Intersection			
Intersection Delay, s/veh	16.3		
Intersection LOS	C		
Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	788	159	180
Demand Flow Rate, veh/h	804	162	183
Vehicles Circulating, veh/h	123	341	49
Vehicles Exiting, veh/h	109	586	454
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	20.9	6.7	4.9
Approach LOS	C	A	A
Lane	Left	Left	Left
Designated Moves	LT	LTR	LR
Assumed Moves	LT	LTR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	804	162	183
Cap Entry Lane, veh/h	999	803	1076
Entry HV Adj Factor	0.980	0.982	0.983
Flow Entry, veh/h	788	159	180
Cap Entry, veh/h	979	789	1058
V/C Ratio	0.805	0.202	0.170
Control Delay, s/veh	20.9	6.7	4.9
LOS	C	A	A
95th %tile Queue, veh	9	1	1

Intersection																
Intersection Delay, s/veh12.9																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0	0	33	2	432	0	25	325	0	0	0	70	33
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	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	34	2	450	0	26	339	0	0	0	73	34
Number of Lanes	0	0	0	0	0	0	2	0	0	1	2	0	0	0	2	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	16	10	9.1
HCM LOS	C	A	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	97%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	3%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	163	163	34	433	35	35	33
LT Vol	25	0	0	33	0	0	0	0
Through Vol	0	163	163	1	1	35	35	0
RT Vol	0	0	0	0	432	0	0	33
Lane Flow Rate	26	169	169	35	451	36	36	34
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.049	0.294	0.211	0.062	0.64	0.069	0.069	0.041
Departure Headway (Hd)	6.765	6.256	4.492	6.288	5.108	6.766	6.766	4.28
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	529	574	797	570	708	529	529	833
Service Time	4.505	3.996	2.231	4.019	2.839	4.514	4.514	2.027
HCM Lane V/C Ratio	0.049	0.294	0.212	0.061	0.637	0.068	0.068	0.041
HCM Control Delay	9.9	11.6	8.4	9.4	16.5	10	10	7.2
HCM Lane LOS	A	B	A	A	C	A	A	A
HCM 95th-tile Q	0.2	1.2	0.8	0.2	4.6	0.2	0.2	0.1

Intersection																
Intersection Delay, s/veh11.2																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	297	0	50	0	0	0	0	1	0	53	11	0	39	64	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	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	309	0	52	0	0	0	0	1	0	55	11	0	41	67	0
Number of Lanes	0	1	1	0	0	0	0	0	0	0	1	0	0	1	2	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	12.4	9.2	8.3
HCM LOS	B	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%
Vol Thru, %	83%	0%	0%	0%	100%	100%
Vol Right, %	17%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	297	50	39	32	32
LT Vol	0	297	0	39	0	0
Through Vol	54	0	0	0	32	32
RT Vol	11	0	50	0	0	0
Lane Flow Rate	68	309	52	41	33	33
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	0.108	0.475	0.063	0.069	0.052	0.036
Departure Headway (Hd)	5.736	5.523	4.322	6.112	5.607	3.858
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	623	653	826	585	638	924
Service Time	3.491	3.266	2.065	3.854	3.349	1.599
HCM Lane V/C Ratio	0.109	0.473	0.063	0.07	0.052	0.036
HCM Control Delay	9.2	13.2	7.4	9.3	8.7	6.7
HCM Lane LOS	A	B	A	A	A	A
HCM 95th-tile Q	0.4	2.6	0.2	0.2	0.2	0.1

Intersection												
Intersection Delay, s/veh	9.2											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	14	4	3	0	3	6	77	0	3	254	3
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	4	3	0	3	6	82	0	3	270	3
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	9.3	8.9	9.3
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	67%	3%	100%	0%	0%
Vol Thru, %	0%	100%	97%	19%	7%	0%	100%	75%
Vol Right, %	0%	0%	3%	14%	90%	0%	0%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	169	88	21	86	91	145	97
LT Vol	3	0	0	14	3	91	0	0
Through Vol	0	169	85	4	6	0	145	73
RT Vol	0	0	3	3	77	0	0	24
Lane Flow Rate	3	180	93	22	91	97	155	103
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.005	0.259	0.134	0.039	0.135	0.151	0.219	0.141
Departure Headway (Hd)	5.687	5.185	5.16	6.266	5.325	5.604	5.102	4.927
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	628	692	693	569	670	639	702	726
Service Time	3.434	2.931	2.907	4.035	3.083	3.349	2.846	2.672
HCM Lane V/C Ratio	0.005	0.26	0.134	0.039	0.136	0.152	0.221	0.142
HCM Control Delay	8.5	9.7	8.7	9.3	8.9	9.4	9.3	8.5
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0	1	0.5	0.1	0.5	0.5	0.8	0.5



**Intersection**

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	91	218	24
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	97	232	26
Number of Lanes	0	1	2	0

**Approach** SB

Opposing Approach NB

Opposing Lanes 3

Conflicting Approach Left WB

Conflicting Lanes Left 1

Conflicting Approach Right EB

Conflicting Lanes Right 1

HCM Control Delay 9.1

HCM LOS A

**Lane**

HCM 2010 Signalized Intersection Summary  
 2: Mace Blvd & Cowell Blvd

Existing Conditions  
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	102	76	34	21	50	105	18	309	18	179	278	165
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	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	109	81	0	22	53	0	19	329	0	190	296	0
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	156	352	0	48	239	0	42	777	0	247	1186	0
Arrive On Green	0.09	0.19	0.00	0.03	0.13	0.00	0.02	0.22	0.00	0.14	0.33	0.00
Sat Flow, veh/h	1774	1863	0	1774	1863	0	1774	3632	0	1774	3632	0
Grp Volume(v), veh/h	109	81	0	22	53	0	19	329	0	190	296	0
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	0	1774	1770	0	1774	1770	0
Q Serve(g_s), s	2.4	1.5	0.0	0.5	1.0	0.0	0.4	3.2	0.0	4.1	2.4	0.0
Cycle Q Clear(g_c), s	2.4	1.5	0.0	0.5	1.0	0.0	0.4	3.2	0.0	4.1	2.4	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	156	352	0	48	239	0	42	777	0	247	1186	0
V/C Ratio(X)	0.70	0.23	0.00	0.46	0.22	0.00	0.45	0.42	0.00	0.77	0.25	0.00
Avail Cap(c_a), veh/h	488	513	0	488	513	0	488	1771	0	488	1771	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)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.7	13.7	0.0	19.2	15.6	0.0	19.3	13.4	0.0	16.6	9.6	0.0
Incr Delay (d2), s/veh	5.6	0.3	0.0	6.6	0.5	0.0	7.3	0.4	0.0	5.0	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(-26165%),veh/ln	0.8	0.0	0.3	0.5	0.0	0.3	1.6	0.0	2.3	1.2	0.0	
LnGrp Delay(d),s/veh	23.3	14.1	0.0	25.8	16.1	0.0	26.6	13.8	0.0	21.6	9.8	0.0
LnGrp LOS	C	B		C	B		C	B		C	A	
Approach Vol, veh/h		190			75			348			486	
Approach Delay, s/veh		19.4			18.9			14.5			14.4	
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	9.6	13.8	5.1	11.6	5.0	18.4	7.5	9.1				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	20.0	11.0	11.0	11.0	11.0	20.0	11.0	11.0				
Max Q Clear Time (g_c+1), s	5.2	2.5	3.5	2.4	4.4	4.4	3.0					
Green Ext Time (p_c), s	0.2	3.3	0.0	0.3	0.0	3.4	0.1	0.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				15.6								
HCM 2010 LOS				B								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary  
7: 2nd St & Faraday Ave

Existing Conditions  
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↑	↗
Volume (veh/h)	185	7	63	11	6	27	97	634	6	56	320	147
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		0.97	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	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	197	7	67	12	6	29	103	674	6	60	340	156
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	261	28	266	27	16	75	137	812	7	97	779	645
Arrive On Green	0.15	0.19	0.19	0.02	0.06	0.06	0.08	0.44	0.44	0.05	0.42	0.42
Sat Flow, veh/h	1774	148	1414	1774	276	1336	1774	1843	16	1774	1863	1544
Grp Volume(v), veh/h	197	0	74	12	0	35	103	0	680	60	340	156
Grp Sat Flow(s),veh/h/ln	1774	0	1562	1774	0	1613	1774	0	1859	1774	1863	1544
Q Serve(g_s), s	5.8	0.0	2.2	0.4	0.0	1.1	3.1	0.0	17.7	1.8	7.1	3.6
Cycle Q Clear(g_c), s	5.8	0.0	2.2	0.4	0.0	1.1	3.1	0.0	17.7	1.8	7.1	3.6
Prop In Lane	1.00		0.91	1.00		0.83	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	261	0	294	27	0	91	137	0	819	97	779	645
V/C Ratio(X)	0.75	0.00	0.25	0.44	0.00	0.39	0.75	0.00	0.83	0.62	0.44	0.24
Avail Cap(c_a), veh/h	357	0	314	357	0	324	357	0	867	357	868	720
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	1.00	1.00
Uniform Delay (d), s/veh	22.4	0.0	18.9	26.7	0.0	24.9	24.7	0.0	13.5	25.3	11.3	10.3
Incr Delay (d2), s/veh	10.0	0.0	1.0	22.6	0.0	5.7	16.2	0.0	7.5	12.9	0.8	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(-26165%),veh/ln	0.0	1.0	0.3	0.0	0.6	2.1	0.0	10.6	1.2	3.8	1.6	
LnGrp Delay(d),s/veh	32.4	0.0	19.9	49.3	0.0	30.6	41.0	0.0	21.0	38.3	12.2	10.7
LnGrp LOS	C		B	D		C	D		C	D	B	B
Approach Vol, veh/h		271			47			783			556	
Approach Delay, s/veh		29.0			35.4			23.7			14.6	
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	7.0	28.6	4.8	14.3	8.2	27.4	12.1	7.1				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	13.0	25.5	11.0	11.0	11.0	25.5	11.0	11.0				
Max Q Clear Time (g_c+13), s	13.0	19.7	2.4	4.2	5.1	9.1	7.8	3.1				
Green Ext Time (p_c), s	0.1	4.4	0.0	0.4	0.2	10.4	0.3	0.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			21.8									
HCM 2010 LOS			C									

**Intersection**

Int Delay, s/veh 4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	61	481	407	134	113	46
Conflicting Peds, #/hr	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	150	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	512	433	143	120	49

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	433	0	1074
Stage 1	-	-	433
Stage 2	-	-	641
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1127	-	623
Stage 1	-	-	654
Stage 2	-	-	525
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1127	-	623
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	654
Stage 2	-	-	495

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	29.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1127	-	-	-	229	623
HCM Lane V/C Ratio	0.058	-	-	-	0.525	0.079
HCM Control Delay (s)	8.4	-	-	-	36.9	11.3
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.2	-	-	-	2.8	0.3

**Intersection**

Int Delay, s/veh 2.6

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	1	27	440	369	114	107	23
Conflicting Peds, #/hr	0	0	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	125	-	-	125	0	125
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	1	29	468	393	121	114	24

Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	417	393	0	-	0	919	394
Stage 1	-	-	-	-	-	393	-
Stage 2	-	-	-	-	-	526	-
Critical Hdwy	-	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	1166	-	-	-	301	655
Stage 1	-	-	-	-	-	682	-
Stage 2	-	-	-	-	-	593	-
Platoon blocked, %	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	~ -29	~ -29	-	-	-	301	655
Mov Cap-2 Maneuver	-	-	-	-	-	301	-
Stage 1	-	-	-	-	-	682	-
Stage 2	-	-	-	-	-	593	-

Approach	EB	WB	SB
HCM Control Delay, s		0	21.7
HCM LOS			C







Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	+	-	-	-	301	655
HCM Lane V/C Ratio	-	-	-	-	0.378	0.037
HCM Control Delay (s)	-	-	-	-	24.1	10.7
HCM Lane LOS	-	-	-	-	C	B
HCM 95th %tile Q(veh)	-	-	-	-	1.7	0.1

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

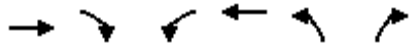
HCM 2010 Signalized Intersection Summary  
 10: Harper JR HS Access & Covell Blvd

Existing Conditions  
 PM Peak Hour

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑	↑	↑		
Volume (veh/h)	425	39	30	656	51	7		
Number	2	12	1	6	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	1863	1863	1863	1827	1815	1900		
Adj Flow Rate, veh/h	452	41	32	698	54	7		
Adj No. of Lanes	2	1	1	1	0	0		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	4	0	0		
Cap, veh/h	2166	968	79	1379	74	10		
Arrive On Green	0.61	0.61	0.04	0.75	0.05	0.05		
Sat Flow, veh/h	3632	1582	1774	1827	1487	193		
Grp Volume(v), veh/h	452	41	32	698	62	0		
Grp Sat Flow(s),veh/h/ln	1770	1582	1774	1827	1707	0		
Q Serve(g_s), s	2.3	0.4	0.7	6.2	1.5	0.0		
Cycle Q Clear(g_c), s	2.3	0.4	0.7	6.2	1.5	0.0		
Prop In Lane		1.00	1.00		0.87	0.11		
Lane Grp Cap(c), veh/h	2166	968	79	1379	84	0		
V/C Ratio(X)	0.21	0.04	0.40	0.51	0.73	0.00		
Avail Cap(c_a), veh/h	2686	1201	695	1386	1087	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	3.5	3.2	19.0	2.0	19.1	0.0		
Incr Delay (d2), s/veh	0.0	0.0	6.9	0.3	11.6	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	1.1	0.2	0.5	3.0	0.9	0.0		
LnGrp Delay(d),s/veh	3.6	3.2	25.9	2.3	30.7	0.0		
LnGrp LOS	A	A	C	A	C			
Approach Vol, veh/h	493			730	62			
Approach Delay, s/veh	3.5			3.3	30.7			
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	5.8	29.0				34.8		6.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	31.0				31.0		26.0
Max Q Clear Time (g_c+I1), s	2.7	4.3				8.2		3.5
Green Ext Time (p_c), s	0.1	8.6				8.1		0.1
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			4.7					
HCM 2010 LOS			A					
<b>Notes</b>								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary  
 11: Alhambra Dr & Covell Blvd

Existing Conditions  
 PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑	↑	↑		
Volume (veh/h)	446	125	24	683	105	18		
Number	2	12	1	6	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	1863	1863	1520	1845	1863	1900		
Adj Flow Rate, veh/h	474	0	26	727	112	0		
Adj No. of Lanes	2	1	1	1	0	0		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	25	3	0	0		
Cap, veh/h	1585	709	47	1117	144	0		
Arrive On Green	0.45	0.00	0.03	0.61	0.08	0.00		
Sat Flow, veh/h	3632	1583	1448	1845	1759	0		
Grp Volume(v), veh/h	474	0	26	727	113	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1448	1845	1775	0		
Q Serve(g_s), s	2.7	0.0	0.6	8.2	2.0	0.0		
Cycle Q Clear(g_c), s	2.7	0.0	0.6	8.2	2.0	0.0		
Prop In Lane		1.00	1.00		0.99	0.00		
Lane Grp Cap(c), veh/h	1585	709	47	1117	145	0		
V/C Ratio(X)	0.30	0.00	0.56	0.65	0.78	0.00		
Avail Cap(c_a), veh/h	2160	966	362	1126	583	0		
HCM Platoon Ratio	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	0.00		
Uniform Delay (d), s/veh	5.6	0.0	15.2	4.1	14.4	0.0		
Incr Delay (d2), s/veh	0.2	0.0	10.0	1.6	8.7	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.4	4.6	1.3	0.0		
LnGrp Delay(d),s/veh	5.8	0.0	25.2	5.8	23.1	0.0		
LnGrp LOS	A		C	A	C			
Approach Vol, veh/h	474			753	113			
Approach Delay, s/veh	5.8			6.4	23.1			
Approach LOS	A			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	5.0	19.8		7.1		24.8		
Change Period (Y+Rc), s	4.0	5.5		4.5		5.5		
Max Green Setting (Gmax), s	3.0	19.5		10.5		19.5		
Max Q Clear Time (g_c+I), s	12.6	4.7		4.0		10.2		
Green Ext Time (p_c), s	0.0	9.6		0.1		6.6		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			7.6					
HCM 2010 LOS			A					
<b>Notes</b>								
User approved pedestrian interval to be less than phase max green.								

Intersection													
Int Delay, s/veh	1.2												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	542	40	49	739	0	23	1	27	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	9	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	3	10	4	2	2	2	4	2	2	2
Mvmt Flow	1	577	43	52	786	0	24	1	29	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	786	0	0	619	0	0	1097	1490	319	1181	1511	393
Stage 1	-	-	-	-	-	-	600	600	-	890	890	-
Stage 2	-	-	-	-	-	-	497	890	-	291	621	-
Critical Hdwy	4.14	-	-	4.3	-	-	7.54	6.54	6.98	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.3	-	-	3.52	4.02	3.34	3.52	4.02	3.32
Pot Cap-1 Maneuver	829	-	-	905	-	-	168	123	671	145	119	606
Stage 1	-	-	-	-	-	-	455	488	-	304	359	-
Stage 2	-	-	-	-	-	-	523	359	-	693	477	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	829	-	-	898	-	-	160	116	666	131	112	606
Mov Cap-2 Maneuver	-	-	-	-	-	-	160	116	-	131	112	-
Stage 1	-	-	-	-	-	-	454	487	-	304	338	-
Stage 2	-	-	-	-	-	-	492	338	-	656	476	-



















Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.6	22.1	25.7
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	264	829	-	-	898	-	-	177
HCM Lane V/C Ratio	0.206	0.001	-	-	0.058	-	-	0.018
HCM Control Delay (s)	22.1	9.3	-	-	9.3	-	-	25.7
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.8	0	-	-	0.2	-	-	0.1



HCM 2010 Signalized Intersection Summary  
 13: Bike Dummy/Wright Blvd & Covell Blvd

Existing Conditions  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	516	0	0	631	132	0	0	0	67	0	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	1810	1863	0	0	1845	1900	0	1863	0	1863	0	1863
Adj Flow Rate, veh/h	96	549	0	0	671	0	0	0	0	71	0	0
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	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, %	5	2	0	0	3	3	0	2	0	2	0	2
Cap, veh/h	146	2365	0	0	1668	0	0	5	0	305	0	0
Arrive On Green	0.08	0.67	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.06	0.00	0.00
Sat Flow, veh/h	1723	3632	0	0	3689	0	0	-74510	0	1774	71	
Grp Volume(v), veh/h	96	549	0	0	671	0	0	0	0	71	0.0	
Grp Sat Flow(s),veh/h/ln	1723	1770	0	0	1752	0	0	1863	0	1774	A	
Q Serve(g_s), s	2.0	2.3	0.0	0.0	4.6	0.0	0.0	0.0	0.0	2.5		
Cycle Q Clear(g_c), s	2.0	2.3	0.0	0.0	4.6	0.0	0.0	0.0	0.0	2.5		
Prop In Lane	1.00		0.00	0.00		0.00	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	146	2365	0	0	1668	0	0	5	0	0		
V/C Ratio(X)	0.66	0.23	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00		
Avail Cap(c_a), veh/h	278	2365	0	0	2264	0	0	552	0	0		
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	1.00	0.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	16.5	2.4	0.0	0.0	6.3	0.0	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	5.0	0.1	0.0	0.0	0.3	0.0	0.0	0.0	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		
%ile BackOfQ(-26165%),veh/ln	1.2	1.1	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0		
LnGrp Delay(d),s/veh	21.5	2.5	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0		
LnGrp LOS	C	A			A							
Approach Vol, veh/h		645			671			0				
Approach Delay, s/veh		5.3			6.6			0.0				
Approach LOS		A			A							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		30.8			7.1	23.7	6.3	0.0				
Change Period (Y+Rc), s		6.0			4.0	6.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0			6.0	24.0	6.0	11.0				
Max Q Clear Time (g_c+I1), s		4.3			4.0	6.6	4.5	0.0				
Green Ext Time (p_c), s		12.9			0.0	11.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				5.7								
HCM 2010 LOS				A								

**Intersection**

Int Delay, s/veh 1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	589	33	21	680	36	17
Conflicting Peds, #/hr	0	4	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	627	35	22	723	38	18

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	662
Stage 1	-	-	644
Stage 2	-	-	406
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	922
Stage 1	-	-	485
Stage 2	-	-	641
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	922
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	485
Stage 2	-	-	624

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	21.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	277	-	-	922	-
HCM Lane V/C Ratio	0.204	-	-	0.024	-
HCM Control Delay (s)	21.3	-	-	9	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Intersection														
Int Delay, s/veh	0.6													

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	13	615	21	15	694	7	10	0	5	2	0	5
Conflicting Peds, #/hr	0	0	0	1	0	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	Free	-	-	None	-	-	Stop
Storage Length	-	125	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	14	654	22	16	738	7	11	0	5	2	0	5













Major/Minor	Major1				Major2			Minor1			Minor2		
Conflicting Flow All	544	738	0	0	677	0	0	1105	1474	338	1135	1485	370
Stage 1	-	-	-	-	-	-	-	704	704	-	770	770	-
Stage 2	-	-	-	-	-	-	-	401	770	-	365	715	-
Critical Hdwy	6.44	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	649	864	-	-	911	-	0	165	125	658	157	124	627
Stage 1	-	-	-	-	-	-	0	394	438	-	359	408	-
Stage 2	-	-	-	-	-	-	0	597	408	-	627	433	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	789	789	-	-	911	-	-	161	123	658	154	122	626
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	161	123	-	154	122	-
Stage 1	-	-	-	-	-	-	-	394	438	-	359	401	-
Stage 2	-	-	-	-	-	-	-	581	401	-	622	433	-

Approach	EB				WB			NB			SB		
HCM Control Delay, s	0.3				0.2			23.1			11.8		
HCM LOS								C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	215	789	-	-	911	-	539
HCM Lane V/C Ratio	0.074	0.024	-	-	0.018	-	0.014
HCM Control Delay (s)	23.1	9.7	-	-	9	-	11.8
HCM Lane LOS	C	A	-	-	A	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	0

HCM 2010 Signalized Intersection Summary  
 16: Birch Ln/Bike lane & Covell Blvd

Existing Conditions  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↖		↗		↑	
Volume (veh/h)	0	635	24	29	658	0	25	0	13	0	0	0
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		0.96	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	0	1845	1863	1863	1863	0	1863	0	1863	0	1863	0
Adj Flow Rate, veh/h	0	676	26	31	700	0	27	0	14	0	0	0
Adj No. of Lanes	0	2	1	1	2	0	1	0	1	0	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, %	0	3	2	2	2	0	2	0	2	0	2	0
Cap, veh/h	0	1854	805	68	2494	0	36	0	0	0	6	0
Arrive On Green	0.00	0.53	0.53	0.04	0.70	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3597	1522	1774	3632	0	1774	27		0	-74510	0
Grp Volume(v), veh/h	0	676	26	31	700	0	27	40.8		0	0	0
Grp Sat Flow(s),veh/h/ln	0	1752	1522	1774	1770	0	1774	D		0	1863	0
Q Serve(g_s), s	0.0	3.3	0.2	0.5	2.1	0.0	0.4			0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	3.3	0.2	0.5	2.1	0.0	0.4			0.0	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00	1.00			0.00		0.00
Lane Grp Cap(c), veh/h	0	1854	805	68	2494	0	36			0	6	0
V/C Ratio(X)	0.00	0.36	0.03	0.46	0.28	0.00	0.75			0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	3374	1465	976	3407	0	1586			0	1345	0
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)	0.00	1.00	1.00	1.00	1.00	0.00	1.00			0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	4.0	3.3	13.7	1.6	0.0	14.2			0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	4.8	0.1	0.0	26.7			0.0	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
%ile BackOfQ(-26165%),veh/ln	0.0	1.5	0.1	0.3	1.0	0.0	0.5			0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	4.1	3.3	18.5	1.6	0.0	40.8			0.0	0.0	0.0
LnGrp LOS		A	A	B	A		D					
Approach Vol, veh/h		702			731						0	
Approach Delay, s/veh		4.1			2.4						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	5.1	19.4	4.6	0.0		24.5						
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0		4.0						
Max Green Setting (Gmax), s	16.0	28.0	26.0	21.0		28.0						
Max Q Clear Time (g_c+I1), s	2.5	5.3	2.4	0.0		4.1						
Green Ext Time (p_c), s	0.0	10.1	0.0	0.0		10.4						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			3.9									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary  
 17: Pole Line Rd & Covell Blvd

Existing Conditions  
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	314	494	165	109	428	146	137	292	40	125	183	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		1.00	1.00		1.00	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	1863	1854	1900	1827	1863	1900	1845	1712	1863	1845	1827	1863
Adj Flow Rate, veh/h	334	526	0	116	455	0	146	311	43	133	195	238
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	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, %	2	2	2	4	2	2	3	11	2	3	4	2
Cap, veh/h	389	1276	0	151	813	0	186	352	311	169	359	302
Arrive On Green	0.22	0.36	0.00	0.09	0.23	0.00	0.11	0.21	0.21	0.10	0.20	0.20
Sat Flow, veh/h	1774	3615	0	1740	3632	0	1757	1712	1510	1757	1827	1539
Grp Volume(v), veh/h	334	526	0	116	455	0	146	311	43	133	195	238
Grp Sat Flow(s),veh/h/ln	1774	1761	0	1740	1770	0	1757	1712	1510	1757	1827	1539
Q Serve(g_s), s	13.1	8.1	0.0	4.7	8.2	0.0	5.9	12.7	1.7	5.4	6.9	10.6
Cycle Q Clear(g_c), s	13.1	8.1	0.0	4.7	8.2	0.0	5.9	12.7	1.7	5.4	6.9	10.6
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	389	1276	0	151	813	0	186	352	311	169	359	302
V/C Ratio(X)	0.86	0.41	0.00	0.77	0.56	0.00	0.79	0.88	0.14	0.79	0.54	0.79
Avail Cap(c_a), veh/h	638	1461	0	505	1468	0	389	355	313	292	379	319
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	17.3	0.0	32.3	24.6	0.0	31.5	27.9	23.5	31.9	26.1	27.6
Incr Delay (d2), s/veh	6.5	0.2	0.0	8.0	0.6	0.0	7.1	21.8	0.2	7.8	1.4	11.8
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(-26165%),veh/ln	4.0	0.0	2.6	4.0	0.0	3.2	8.2	0.7	3.0	3.7	5.5	
LnGrp Delay(d),s/veh	33.7	17.5	0.0	40.3	25.2	0.0	38.7	49.7	23.7	39.8	27.6	39.4
LnGrp LOS	C	B		D	C		D	D	C	D	C	D
Approach Vol, veh/h		860			571			500			566	
Approach Delay, s/veh		23.8			28.3			44.2			35.4	
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	19.8	21.6	11.7	19.2	10.3	31.2	11.0	19.9
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Green Setting (Gmax), s	20.0	30.0	16.0	15.0	21.0	30.0	12.0	15.0
Max Q Clear Time (g_c+1.5), s	10.2	7.9	12.6	6.7	10.1	7.4	14.7	
Green Ext Time (p_c), s	0.8	6.4	0.2	1.0	0.2	6.4	0.1	0.1

Intersection Summary		
HCM 2010 Ctrl Delay		31.5
HCM 2010 LOS		C

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

**Intersection**

Int Delay, s/veh 2.8

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Vol, veh/h	934	107	1	76	746	52	124
Conflicting Peds, #/hr	0	5	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	-	None	-	Yield
Storage Length	-	-	-	200	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	5	2
Mvmt Flow	994	114	1	81	794	55	132



















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1555
Stage 1	-	-	994
Stage 2	-	-	561
Critical Hdwy	-	6.44	6.9
Critical Hdwy Stg 1	-	-	5.9
Critical Hdwy Stg 2	-	-	5.9
Follow-up Hdwy	-	2.52	3.55
Pot Cap-1 Maneuver	-	275	101
Stage 1	-	-	312
Stage 2	-	-	526
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	672	101
Mov Cap-2 Maneuver	-	-	101
Stage 1	-	-	312
Stage 2	-	-	524

Approach	EB	WB	NB
HCM Control Delay, s	0	1	27.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	342	-	-	672	-
HCM Lane V/C Ratio	0.547	-	-	0.122	-
HCM Control Delay (s)	27.6	-	-	11.1	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	3.1	-	-	0.4	-

HCM 2010 Signalized Intersection Summary  
 19: J St & Covell Blvd

Existing Conditions  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	940	112	59	739	0	106	1	101	0	1	0
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	1863	1857	1900	1743	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	0	1000	0	63	786	0	113	1	0	0	1	0
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	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, %	2	2	2	9	2	2	2	2	2	2	2	2
Cap, veh/h	4	1666	0	81	2167	0	159	1	0	0	4	0
Arrive On Green	0.00	0.47	0.00	0.05	0.61	0.00	0.09	0.09	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1774	3621	0	1660	3632	0	1759	16	0	0	1863	0
Grp Volume(v), veh/h	0	1000	0	63	786	0	114	0	0	0	1	0
Grp Sat Flow(s),veh/h/ln	1774	1764	0	1660	1770	0	1775	0	0	0	1863	0
Q Serve(g_s), s	0.0	9.2	0.0	1.6	4.9	0.0	2.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	9.2	0.0	1.6	4.9	0.0	2.7	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	0.99		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	4	1666	0	81	2167	0	160	0	0	0	4	0
V/C Ratio(X)	0.00	0.60	0.00	0.78	0.36	0.00	0.71	0.00	0.00	0.00	0.24	0.00
Avail Cap(c_a), veh/h	162	2814	0	227	2823	0	1132	0	0	0	891	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	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	8.5	0.0	20.6	4.2	0.0	19.4	0.0	0.0	0.0	21.9	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	5.8	0.0	0.0	2.2	0.0	0.0	0.0	10.2	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(-26165%),veh/ln	0.0	4.3	0.0	0.9	2.3	0.0	1.4	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	8.7	0.0	26.5	4.3	0.0	21.6	0.0	0.0	0.0	32.1	0.0
LnGrp LOS		A		C	A		C				C	
Approach Vol, veh/h		1000			849			114			1	
Approach Delay, s/veh		8.7			5.9			21.6			32.1	
Approach LOS		A			A			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	6.1	25.7		4.0	0.0	31.9		8.0				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	6.0	35.0		21.0	4.0	35.0		28.0				
Max Q Clear Time (g_c+I1), s	3.6	11.2		2.0	0.0	6.9		4.7				
Green Ext Time (p_c), s	0.0	9.6		0.0	0.0	10.2		0.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				8.2								
HCM 2010 LOS				A								

HCM 2010 Signalized Intersection Summary  
20: F St & Covell Blvd

Existing Conditions  
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Volume (veh/h)	43	764	189	148	552	144	140	152	188	100	108	54
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	1863	1863	1900	1845	1863	1900	1845	1853	1900	1863	1839	1900
Adj Flow Rate, veh/h	46	813	0	157	587	0	149	162	0	106	115	0
Adj No. of Lanes	1	2	0	2	2	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, %	2	2	2	3	2	2	3	2	2	2	2	2
Cap, veh/h	81	1267	0	280	1396	0	197	319	0	143	258	0
Arrive On Green	0.05	0.36	0.00	0.08	0.39	0.00	0.11	0.17	0.00	0.08	0.14	0.00
Sat Flow, veh/h	1774	3632	0	3408	3632	0	1757	1853	0	1774	1839	0
Grp Volume(v), veh/h	46	813	0	157	587	0	149	162	0	106	115	0
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1704	1770	0	1757	1853	0	1774	1839	0
Q Serve(g_s), s	1.4	10.6	0.0	2.5	6.7	0.0	4.6	4.4	0.0	3.2	3.2	0.0
Cycle Q Clear(g_c), s	1.4	10.6	0.0	2.5	6.7	0.0	4.6	4.4	0.0	3.2	3.2	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	81	1267	0	280	1396	0	197	319	0	143	258	0
V/C Ratio(X)	0.57	0.64	0.00	0.56	0.42	0.00	0.75	0.51	0.00	0.74	0.45	0.00
Avail Cap(c_a), veh/h	833	2557	0	1600	2557	0	825	870	0	833	863	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)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.9	14.8	0.0	24.4	12.2	0.0	23.8	20.8	0.0	24.9	21.8	0.0
Incr Delay (d2), s/veh	2.3	0.2	0.0	0.7	0.1	0.0	5.8	1.3	0.0	8.7	1.5	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(-26165%),veh/ln	5.1	0.0	1.2	3.3	0.0	2.5	2.4	0.0	1.9	1.7	0.0	
LnGrp Delay(d),s/veh	28.2	15.0	0.0	25.1	12.2	0.0	29.6	22.1	0.0	33.6	23.3	0.0
LnGrp LOS	C	B		C	B		C	C		C	C	
Approach Vol, veh/h		859			744			311			221	
Approach Delay, s/veh		15.7			15.0			25.7			28.2	
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	8.6	24.8	10.2	11.8	6.5	26.8	8.5	13.5				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	20.0	40.0	26.0	26.0	26.0	40.0	26.0	26.0				
Max Q Clear Time (g_c+1), s	14.5	12.6	6.6	5.2	3.4	8.7	5.2	6.4				
Green Ext Time (p_c), s	0.2	7.2	0.4	1.7	0.0	7.4	0.3	1.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				18.2								
HCM 2010 LOS				B								



**Intersection**

Intersection Delay, s/veh 11.6  
Intersection LOS B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	208	158	42	0	52	110	7	0	32	48	33	0	9	81	116
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, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	221	168	45	0	55	117	7	0	34	51	35	0	10	86	123
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	12.3	10.5	10.3	11.9
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	59%	0%	79%	0%	94%	0%	41%
Vol Right, %	0%	41%	0%	21%	0%	6%	0%	59%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	81	208	200	52	117	9	197
LT Vol	32	0	208	0	52	0	9	0
Through Vol	0	48	0	158	0	110	0	81
RT Vol	0	33	0	42	0	7	0	116
Lane Flow Rate	34	86	221	213	55	124	10	210
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.067	0.151	0.391	0.338	0.103	0.214	0.018	0.35
Departure Headway (Hd)	7.117	6.318	6.365	5.711	6.727	6.177	6.945	6.02
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	502	566	566	630	532	580	515	597
Service Time	4.871	4.072	4.101	3.447	4.472	3.922	4.693	3.767
HCM Lane V/C Ratio	0.068	0.152	0.39	0.338	0.103	0.214	0.019	0.352
HCM Control Delay	10.4	10.2	13.2	11.4	10.2	10.6	9.8	12
HCM Lane LOS	B	B	B	B	B	B	A	B
HCM 95th-tile Q	0.2	0.5	1.8	1.5	0.3	0.8	0.1	1.6

Intersection												
Int Delay, s/veh	4.4											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	138	3	55	3	0	2	20	277	2	4	202	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	175	-	-	-	150	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	147	3	59	3	0	2	21	295	2	4	215	62

























Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	593	593	247	623	623	296	277	0	0	297	0	0
Stage 1	254	254	-	338	338	-	-	-	-	-	-	-
Stage 2	339	339	-	285	285	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	417	418	792	398	402	743	1286	-	-	1264	-	-
Stage 1	750	697	-	676	641	-	-	-	-	-	-	-
Stage 2	676	640	-	722	676	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	410	410	791	361	394	743	1285	-	-	1264	-	-
Mov Cap-2 Maneuver	410	410	-	361	394	-	-	-	-	-	-	-
Stage 1	738	695	-	665	631	-	-	-	-	-	-	-
Stage 2	663	630	-	663	674	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.1	13	0.5	0.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1285	-	-	410	755	454	1264	-	-
HCM Lane V/C Ratio	0.017	-	-	0.358	0.082	0.012	0.003	-	-
HCM Control Delay (s)	7.8	-	-	18.6	10.2	13	7.9	-	-
HCM Lane LOS	A	-	-	C	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.6	0.3	0	0	-	-

HCM 2010 Signalized Intersection Summary  
 34: Cowell Blvd & Pole Line Rd/Lillard Dr

Existing Conditions  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	183	198	157	154	182	6	170	141	189	3	100	155
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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	195	211	0	164	194	0	181	150	0	3	106	0
Adj No. of Lanes	1	1	1	1	2	1	1	1	1	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	253	381	324	214	645	289	231	484	411	7	249	212
Arrive On Green	0.14	0.20	0.00	0.12	0.18	0.00	0.13	0.26	0.00	0.00	0.13	0.00
Sat Flow, veh/h	1774	1863	1583	1774	3539	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	195	211	0	164	194	0	181	150	0	3	106	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1770	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	4.1	4.0	0.0	3.5	1.8	0.0	3.8	2.5	0.0	0.1	2.0	0.0
Cycle Q Clear(g_c), s	4.1	4.0	0.0	3.5	1.8	0.0	3.8	2.5	0.0	0.1	2.0	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	253	381	324	214	645	289	231	484	411	7	249	212
V/C Ratio(X)	0.77	0.55	0.00	0.77	0.30	0.00	0.78	0.31	0.00	0.41	0.43	0.00
Avail Cap(c_a), veh/h	730	766	651	730	1092	488	365	670	570	502	670	570
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.1	13.9	0.0	16.6	13.8	0.0	16.4	11.6	0.0	19.3	15.5	0.0
Incr Delay (d2), s/veh	1.9	0.5	0.0	2.2	0.1	0.0	2.2	0.1	0.0	13.3	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(-26165%),veh/ln	2.1	2.0	0.0	1.8	0.9	0.0	2.0	1.3	0.0	0.1	1.1	0.0
LnGrp Delay(d),s/veh	17.9	14.4	0.0	18.8	13.9	0.0	18.6	11.7	0.0	32.6	15.9	0.0
LnGrp LOS	B	B		B	B		B	B		C	B	
Approach Vol, veh/h		406			358			331			109	
Approach Delay, s/veh		16.1			16.1			15.5			16.4	
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	4.2	14.1	8.7	12.0	9.1	9.2	9.5	11.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	14.0	16.0	16.0	8.0	14.0	16.0	12.0				
Max Q Clear Time (g_c+I1), s	2.1	4.5	5.5	6.0	5.8	4.0	6.1	3.8				
Green Ext Time (p_c), s	0.0	0.7	0.2	1.3	0.1	0.7	0.2	1.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			15.9									
HCM 2010 LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary  
35: Valdora St & Cowell Blvd

Existing Conditions  
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	453	62	43	333	39	42	15	47	30	16	72
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		0.92	1.00		0.97	1.00		0.96	1.00		0.59
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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	74	482	66	46	354	41	45	16	50	32	17	77
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	738	578	87	703	579	85	259	212	65	24	107
Arrive On Green	0.07	0.40	0.40	0.05	0.38	0.38	0.05	0.14	0.14	0.04	0.13	0.13
Sat Flow, veh/h	1774	1863	1457	1774	1863	1534	1774	1863	1526	1774	185	839
Grp Volume(v), veh/h	74	482	66	46	354	41	45	16	50	32	0	94
Grp Sat Flow(s),veh/h/ln	1774	1863	1457	1774	1863	1534	1774	1863	1526	1774	0	1025
Q Serve(g_s), s	1.8	9.2	1.2	1.1	6.4	0.7	1.1	0.3	1.3	0.8	0.0	3.8
Cycle Q Clear(g_c), s	1.8	9.2	1.2	1.1	6.4	0.7	1.1	0.3	1.3	0.8	0.0	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.82
Lane Grp Cap(c), veh/h	120	738	578	87	703	579	85	259	212	65	0	131
V/C Ratio(X)	0.61	0.65	0.11	0.53	0.50	0.07	0.53	0.06	0.24	0.49	0.00	0.72
Avail Cap(c_a), veh/h	244	1304	1020	244	1304	1074	244	259	212	244	0	141
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	0.00	1.00
Uniform Delay (d), s/veh	19.8	10.7	8.3	20.2	10.4	8.7	20.3	16.3	16.7	20.6	0.0	18.3
Incr Delay (d2), s/veh	1.9	0.4	0.0	1.9	0.2	0.0	1.9	0.0	0.2	2.1	0.0	12.3
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(-26165%),veh/ln	4.8	0.5	0.6	3.3	0.3	0.6	0.2	0.5	0.4	0.0	1.5	
LnGrp Delay(d),s/veh	21.6	11.1	8.3	22.1	10.6	8.7	22.1	16.3	16.9	22.7	0.0	30.5
LnGrp LOS	C	B	A	C	B	A	C	B	B	C		C
Approach Vol, veh/h		622			441			111			126	
Approach Delay, s/veh		12.0			11.6			18.9			28.5	
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	6.1	21.8	6.1	9.6	7.0	21.0	5.6	10.1				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	30.5	30.5	6.0	6.0	6.0	30.5	6.0	6.0				
Max Q Clear Time (g_c+1), s	11.2	11.2	3.1	5.8	3.8	8.4	2.8	3.3				
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.0	4.0	0.0	0.2				

Intersection Summary

HCM 2010 Ctrl Delay	14.1
HCM 2010 LOS	B

Notes

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

HCM 2010 Signalized Intersection Summary  
36: Drew Ave & Cowell Blvd

Existing Conditions  
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	541	61	29	444	26	57	3	23	48	4	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		0.95	1.00		0.96	1.00		0.93	1.00		0.65
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	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	32	576	65	31	472	28	61	3	24	51	4	74
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	63	793	90	61	902	735	98	20	159	88	210	115
Arrive On Green	0.04	0.49	0.49	0.03	0.48	0.48	0.06	0.12	0.12	0.05	0.11	0.11
Sat Flow, veh/h	1774	1635	185	1774	1863	1517	1774	168	1340	1774	1863	1021
Grp Volume(v), veh/h	32	0	641	31	472	28	61	0	27	51	4	74
Grp Sat Flow(s),veh/h/ln	1774	0	1820	1774	1863	1517	1774	0	1508	1774	1863	1021
Q Serve(g_s), s	1.0	0.0	15.2	0.9	9.5	0.5	1.8	0.0	0.9	1.5	0.1	3.8
Cycle Q Clear(g_c), s	1.0	0.0	15.2	0.9	9.5	0.5	1.8	0.0	0.9	1.5	0.1	3.8
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.89	1.00		1.00
Lane Grp Cap(c), veh/h	63	0	883	61	902	735	98	0	179	88	210	115
V/C Ratio(X)	0.51	0.00	0.73	0.51	0.52	0.04	0.62	0.00	0.15	0.58	0.02	0.64
Avail Cap(c_a), veh/h	358	0	1002	261	1026	836	261	0	221	261	274	150
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	0.0	11.1	25.8	9.7	7.4	25.2	0.0	21.5	25.3	21.5	23.1
Incr Delay (d2), s/veh	6.3	0.0	3.2	6.4	1.0	0.0	6.3	0.0	0.8	6.0	0.0	5.8
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(-26165%),veh/ln	0.0	0.0	8.3	0.6	5.1	0.2	1.1	0.0	0.4	0.9	0.1	1.2
LnGrp Delay(d),s/veh	32.2	0.0	14.4	32.3	10.7	7.4	31.4	0.0	22.3	31.3	21.5	28.9
LnGrp LOS	C		B	C	B	A	C		C	C	C	C
Approach Vol, veh/h		673			531			88			129	
Approach Delay, s/veh		15.2			11.8			28.7			29.7	
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	5.9	31.4	7.0	10.1	5.9	31.4	6.7	10.5				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	30.0	30.0	8.0	8.0	11.0	30.0	8.0	8.0				
Max Q Clear Time (g_c+1), s	17.2	17.2	3.8	5.8	3.0	11.5	3.5	2.9				
Green Ext Time (p_c), s	0.0	9.2	0.0	0.1	0.0	12.3	0.0	0.2				

Intersection Summary

HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Notes

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

HCM 2010 Signalized Intersection Summary  
 37: Research Park Dr & Cowell Blvd

Existing Conditions  
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	151	602	46	34	595	38	155	19	43	44	7	107
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		0.89	1.00		0.93
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	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	161	640	49	36	633	0	165	20	46	47	7	114
Adj No. of Lanes	1	1	1	1	2	0	2	2	0	1	2	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	1107	921	72	1870	0	230	334	266	61	277	229
Arrive On Green	0.21	1.00	1.00	0.04	0.53	0.00	0.07	0.19	0.19	0.03	0.16	0.16
Sat Flow, veh/h	1774	1863	1550	1774	3632	0	3442	1770	1409	1774	1770	1466
Grp Volume(v), veh/h	161	640	49	36	633	0	165	20	46	47	7	114
Grp Sat Flow(s),veh/h/ln	1774	1863	1550	1774	1770	0	1721	1770	1409	1774	1770	1466
Q Serve(g_s), s	10.5	0.0	0.0	2.4	12.3	0.0	5.6	1.1	3.3	3.2	0.4	8.5
Cycle Q Clear(g_c), s	10.5	0.0	0.0	2.4	12.3	0.0	5.6	1.1	3.3	3.2	0.4	8.5
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	1107	921	72	1870	0	230	334	266	61	277	229
V/C Ratio(X)	0.85	0.58	0.05	0.50	0.34	0.00	0.72	0.06	0.17	0.77	0.03	0.50
Avail Cap(c_a), veh/h	517	1107	921	222	1870	0	574	413	329	296	413	342
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)	0.85	0.85	0.85	0.95	0.95	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	0.0	0.0	56.4	16.2	0.0	54.9	39.9	40.8	57.5	42.9	46.3
Incr Delay (d2), s/veh	8.7	1.9	0.1	4.9	0.5	0.0	4.2	0.1	0.3	18.2	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(-26165%),veh/ln	0.6	0.0	1.3	6.1	0.0	2.8	0.6	1.3	1.9	0.2	3.6	
LnGrp Delay(d),s/veh	55.0	1.9	0.1	61.3	16.7	0.0	59.1	40.0	41.1	75.6	42.9	48.0
LnGrp LOS	E	A	A	E	B		E	D	D	E	D	D
Approach Vol, veh/h		850			669			231			168	
Approach Delay, s/veh		11.8			19.1			53.9			55.5	
Approach LOS		B			B			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	8.9	76.3	12.0	22.8	16.8	68.4	8.1	26.6				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	45.0	40.0	20.0	28.0	35.0	20.0	20.0	28.0				
Max Q Clear Time (g_c+1), s	14.5	2.0	7.6	10.5	12.5	14.3	5.2	5.3				
Green Ext Time (p_c), s	0.0	11.5	0.4	1.1	0.4	3.7	0.1	1.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			23.3									
HCM 2010 LOS			C									
<b>Notes</b>												
User approved ignoring U-Turning movement.												

**Intersection**

Intersection Delay, s/veh 9.6  
Intersection LOS A

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	175	146	0	38	158	0	137	29
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	186	155	0	40	168	0	146	31
Number of Lanes	0	1	1	0	1	1	0	1	0

**Approach**

	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	9.2	9.7	10.1
HCM LOS	A	A	B

**Lane**

	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	83%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%
Vol Right, %	17%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	166	175	146	38	158
LT Vol	137	0	0	38	0
Through Vol	0	175	0	0	158
RT Vol	29	0	146	0	0
Lane Flow Rate	177	186	155	40	168
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.256	0.27	0.195	0.066	0.249
Departure Headway (Hd)	5.218	5.221	4.516	5.834	5.33
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	685	685	791	611	671
Service Time	3.275	2.975	2.269	3.595	3.091
HCM Lane V/C Ratio	0.258	0.272	0.196	0.065	0.25
HCM Control Delay	10.1	9.9	8.4	9	9.9
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1	1.1	0.7	0.2	1

**Intersection**

Intersection Delay, s/veh 8.1  
Intersection LOS A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	1	72	49	11	0	1	34	9	0	6	6	1	1	13	6	82
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, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	77	52	12	0	1	36	10	0	6	6	1	1	14	6	87
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.4	7.8	8.1	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	86%	0%	82%	0%	79%	0%	7%
Vol Right, %	0%	14%	0%	18%	0%	21%	0%	93%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	7	73	60	1	43	14	88
LT Vol	6	0	73	0	1	0	14	0
Through Vol	0	6	0	49	0	34	0	6
RT Vol	0	1	0	11	0	9	0	82
Lane Flow Rate	6	7	78	64	1	46	15	94
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.01	0.01	0.114	0.082	0.002	0.061	0.023	0.114
Departure Headway (Hd)	5.607	5.004	5.373	4.744	5.451	4.802	5.527	4.371
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	641	718	671	760	659	748	651	824
Service Time	3.315	2.713	3.073	2.444	3.163	2.514	3.231	2.075
HCM Lane V/C Ratio	0.009	0.01	0.116	0.084	0.002	0.061	0.023	0.114
HCM Control Delay	8.4	7.8	8.8	7.9	8.2	7.8	8.4	7.6
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0	0	0.4	0.3	0	0.2	0.1	0.4



HCM 2010 Signalized Intersection Summary  
40: Pole Line Rd & E 5th St

Existing Conditions  
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Volume (veh/h)	101	217	182	102	153	218	229	312	176	134	278	97
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	0.99		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	1820	1900	1810	1837	1900	1863	1863	1900	1863	1863	1827
Adj Flow Rate, veh/h	107	231	0	109	163	0	244	332	0	143	296	0
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	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, %	7	3	3	5	4	4	2	2	2	2	2	4
Cap, veh/h	134	617	0	138	539	0	509	781	0	484	781	651
Arrive On Green	0.08	0.18	0.00	0.08	0.15	0.00	0.42	0.42	0.00	0.42	0.42	0.00
Sat Flow, veh/h	1691	3550	0	1723	3583	0	1069	1863	0	1042	1863	1553
Grp Volume(v), veh/h	107	231	0	109	163	0	244	332	0	143	296	0
Grp Sat Flow(s),veh/h/ln	1691	1729	0	1723	1745	0	1069	1863	0	1042	1863	1553
Q Serve(g_s), s	2.5	2.4	0.0	2.5	1.7	0.0	8.2	5.1	0.0	4.5	4.4	0.0
Cycle Q Clear(g_c), s	2.5	2.4	0.0	2.5	1.7	0.0	12.7	5.1	0.0	9.6	4.4	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	134	617	0	138	539	0	509	781	0	484	781	651
V/C Ratio(X)	0.80	0.37	0.00	0.79	0.30	0.00	0.48	0.43	0.00	0.30	0.38	0.00
Avail Cap(c_a), veh/h	420	2231	0	470	2165	0	618	971	0	590	971	809
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.2	14.6	0.0	18.2	15.1	0.0	12.5	8.3	0.0	11.7	8.1	0.0
Incr Delay (d2), s/veh	4.2	0.1	0.0	3.8	0.1	0.0	0.3	0.1	0.0	0.1	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(-26165%),veh/ln	1.1	0.0	1.3	0.8	0.0	2.4	2.6	0.0	1.3	2.2	0.0	
LnGrp Delay(d),s/veh	22.4	14.7	0.0	22.0	15.2	0.0	12.7	8.4	0.0	11.8	8.2	0.0
LnGrp LOS	C	B		C	B		B	A		B	A	
Approach Vol, veh/h		338			272			576			439	
Approach Delay, s/veh		17.2			18.0			10.2			9.4	
Approach LOS		B			B			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	12.2		20.9	8.2	11.2		20.9				
Change Period (Y+Rc), s	4.0	* 5		4.0	5.0	5.0		4.0				
Max Green Setting (Gmax), s	15	* 26		21.0	10.0	25.0		21.0				
Max Q Clear Time (g_c+14), s	11.5	4.4		11.6	4.5	3.7		14.7				
Green Ext Time (p_c), s	0.1	1.7		2.8	0.1	1.7		2.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				12.7								
HCM 2010 LOS				B								
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary  
41: L St & E 5th St

Existing Conditions  
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	76	326	120	61	353	66	95	203	115	45	120	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		0.92	1.00		0.96	1.00		0.92	1.00		0.90
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	1863	1786	1900	1727	1863	1863	1863	1863	1667	1863	1863	1863
Adj Flow Rate, veh/h	81	347	128	65	376	70	101	216	122	48	128	64
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	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, %	2	8	8	10	2	2	2	2	14	2	2	2
Cap, veh/h	119	447	165	97	672	547	133	368	257	86	319	243
Arrive On Green	0.07	0.37	0.37	0.06	0.36	0.36	0.07	0.20	0.20	0.05	0.17	0.17
Sat Flow, veh/h	1774	1212	447	1645	1863	1517	1774	1863	1301	1774	1863	1418
Grp Volume(v), veh/h	81	0	475	65	376	70	101	216	122	48	128	64
Grp Sat Flow(s),veh/h/ln	1774	0	1660	1645	1863	1517	1774	1863	1301	1774	1863	1418
Q Serve(g_s), s	2.3	0.0	12.8	2.0	8.2	1.6	2.8	5.3	4.2	1.3	3.1	2.0
Cycle Q Clear(g_c), s	2.3	0.0	12.8	2.0	8.2	1.6	2.8	5.3	4.2	1.3	3.1	2.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	119	0	612	97	672	547	133	368	257	86	319	243
V/C Ratio(X)	0.68	0.00	0.78	0.67	0.56	0.13	0.76	0.59	0.47	0.56	0.40	0.26
Avail Cap(c_a), veh/h	281	0	1001	260	755	615	281	957	669	281	589	449
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	23.1	0.0	14.1	23.3	13.0	10.8	22.9	18.4	18.0	23.5	18.7	18.2
Incr Delay (d2), s/veh	2.5	0.0	0.8	2.9	0.3	0.0	3.3	0.6	0.5	2.1	0.3	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(-26165%),veh/ln	0.0	5.9	1.0	4.2	0.7	1.5	2.8	1.5	0.7	1.6	0.8	
LnGrp Delay(d),s/veh	25.6	0.0	14.9	26.2	13.2	10.9	26.3	19.0	18.5	25.6	19.0	18.4
LnGrp LOS	C		B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		556			511			439			240	
Approach Delay, s/veh		16.5			14.6			20.5			20.1	
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	7.0	23.1	7.8	12.7	7.4	22.7	6.5	14.0				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	30.5	30.5	8.0	16.0	8.0	20.5	8.0	26.0				
Max Q Clear Time (g_c+14), s	14.8	14.8	4.8	5.1	4.3	10.2	3.3	7.3				
Green Ext Time (p_c), s	0.0	3.5	0.0	1.4	0.0	3.0	0.0	1.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			17.4									
HCM 2010 LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary  
57: Pole Line Rd & Bike Dummy/Loyola Dr

Existing Conditions  
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑		↖		↖		↖		↖	↑	
Volume (veh/h)	0	0	0	45	0	90	0	423	74	101	343	0
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		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	0	1863	0	1863	0	1863	0	1842	1900	1810	1845	0
Adj Flow Rate, veh/h	0	0	0	48	0	96	0	450	79	107	365	0
Adj No. of Lanes	0	1	0	1	0	1	0	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, %	0	2	0	2	0	2	0	3	3	5	3	0
Cap, veh/h	0	6	0	58	0	0	0	722	127	133	1251	0
Arrive On Green	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.48	0.48	0.08	0.68	0.00
Sat Flow, veh/h	0-55882		0	1774	48		0	1518	267	1723	1845	0
Grp Volume(v), veh/h	0	0	0	48	25.9		0	0	529	107	365	0
Grp Sat Flow(s),veh/h/ln	0	1863	0	1774	C		0	0	1785	1723	1845	0
Q Serve(g_s), s	0.0	0.0	0.0	0.9			0.0	0.0	7.0	1.9	2.5	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.9			0.0	0.0	7.0	1.9	2.5	0.0
Prop In Lane	0.00		0.00	1.00			0.00		0.15	1.00		0.00
Lane Grp Cap(c), veh/h	0	6	0	58			0	0	848	133	1251	0
V/C Ratio(X)	0.00	0.00	0.00	0.83			0.00	0.00	0.62	0.81	0.29	0.00
Avail Cap(c_a), veh/h	0	410	0	324			0	0	1404	217	1451	0
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)	0.00	0.00	0.00	1.00			0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	15.3			0.0	0.0	6.2	14.4	2.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	10.7			0.0	0.0	0.3	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
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.0	0.6			0.0	0.0	3.4	1.1	1.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	25.9			0.0	0.0	6.5	18.8	2.1	0.0
LnGrp LOS				C					A	B	A	
Approach Vol, veh/h		0						529			472	
Approach Delay, s/veh		0.0						6.5			5.9	
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	6.4	20.1	5.2	0.0		26.6						
Change Period (Y+Rc), s	4.0	5.0	* 4.2	3.0		5.0						
Max Green Setting (Gmax), s	1.0	25.0	* 5.8	7.0		25.0						
Max Q Clear Time (g_c+I), s	1.0	9.0	2.9	0.0		4.5						
Green Ext Time (p_c), s	0.0	3.8	0.0	0.0		4.1						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				7.1								
HCM 2010 LOS				A								
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

**Intersection**

Intersection Delay, s/veh 8.7  
Intersection LOS A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	39	13	25	0	11	23	8	0	47	154	13	0	10	100	46
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, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
Mvmt Flow	0	41	14	27	0	12	24	9	0	50	164	14	0	11	106	49
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	8.4	8.2	9.2	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	51%	26%	6%
Vol Thru, %	72%	17%	55%	64%
Vol Right, %	6%	32%	19%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	214	77	42	156
LT Vol	47	39	11	10
Through Vol	154	13	23	100
RT Vol	13	25	8	46
Lane Flow Rate	228	82	45	166
Geometry Grp	1	1	1	1
Degree of Util (X)	0.28	0.109	0.06	0.199
Departure Headway (Hd)	4.426	4.773	4.855	4.325
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	813	750	737	830
Service Time	2.45	2.806	2.892	2.351
HCM Lane V/C Ratio	0.28	0.109	0.061	0.2
HCM Control Delay	9.2	8.4	8.2	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0.4	0.2	0.7

**Intersection**

Int Delay, s/veh 0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	20	22	17	480	450	44
Conflicting Peds, #/hr	0	3	0	0	0	7
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	4	3	6	3	4
Mvmt Flow	21	23	18	511	479	47

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1052	505	529 0
Stage 1	505	-	- -
Stage 2	547	-	- -
Critical Hdwy	6.42	6.24	4.13 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.336	2.227 -
Pot Cap-1 Maneuver	251	563	1033 -
Stage 1	606	-	- -
Stage 2	580	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	245	562	1033 -
Mov Cap-2 Maneuver	379	-	- -
Stage 1	604	-	- -
Stage 2	568	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	13.7	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1033	-	457	-	-
HCM Lane V/C Ratio	0.018	-	0.098	-	-
HCM Control Delay (s)	8.5	-	13.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

**Intersection**

Int Delay, s/veh 6.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	130	162	124	206	271	73
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	138	172	132	219	288	78

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	771	288	0
Stage 1	288	-	-
Stage 2	483	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	368	751	1274
Stage 1	761	-	-
Stage 2	620	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	325	751	1274
Mov Cap-2 Maneuver	325	-	-
Stage 1	761	-	-
Stage 2	547	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.9	3.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1274	-	325	751	-	-
HCM Lane V/C Ratio	0.104	-	0.426	0.229	-	-
HCM Control Delay (s)	8.2	0	24	11.2	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	2	0.9	-	-

**Intersection**

Int Delay, s/veh 7.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	6	237	38	50	26	14
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	252	40	53	28	15

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	169	35	43 0
Stage 1	35	-	- -
Stage 2	134	-	- -
Critical Hdwy	6.42	6.22	4.12 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.318	2.218 -
Pot Cap-1 Maneuver	821	1038	1566 -
Stage 1	987	-	- -
Stage 2	892	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	800	1038	1566 -
Mov Cap-2 Maneuver	800	-	- -
Stage 1	987	-	- -
Stage 2	869	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	9.7	3.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1566	-	1030	-	-
HCM Lane V/C Ratio	0.026	-	0.251	-	-
HCM Control Delay (s)	7.4	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-

**Intersection**

Int Delay, s/veh 4.1

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Vol, veh/h	258	0	2	11	4	86	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	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	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	274	0	2	12	4	91	73

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	348
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1289
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-7
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0		11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	720	-	-	+	-
HCM Lane V/C Ratio	0.229	-	-	-	-
HCM Control Delay (s)	11.5	-	-	-	-
HCM Lane LOS	B	-	-	-	-
HCM 95th %tile Q(veh)	0.9	-	-	-	-

**Notes**

-: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



**Intersection**

Int Delay, s/veh 3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	190	12	43	227	5	14
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	202	13	46	241	5	15

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	287	0	583
Stage 1	-	-	166
Stage 2	-	-	417
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1275	-	475
Stage 1	-	-	863
Stage 2	-	-	665
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1275	-	399
Mov Cap-2 Maneuver	-	-	399
Stage 1	-	-	863
Stage 2	-	-	559

Approach	EB	WB	SB
HCM Control Delay, s	7.9	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1275	-	-	-	667
HCM Lane V/C Ratio	0.159	-	-	-	0.03
HCM Control Delay (s)	8.4	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.6	-	-	-	0.1

Intersection			
Intersection Delay, s/veh	11.4		
Intersection LOS	B		
Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	187	566	422
Demand Flow Rate, veh/h	191	577	430
Vehicles Circulating, veh/h	154	85	433
Vehicles Exiting, veh/h	709	260	229
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.7	10.7	14.8
Approach LOS	A	B	B
Lane	Left	Left	Left
Designated Moves	LT	LTR	LR
Assumed Moves	LT	LTR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	191	577	430
Cap Entry Lane, veh/h	969	1038	733
Entry HV Adj Factor	0.979	0.980	0.981
Flow Entry, veh/h	187	566	422
Cap Entry, veh/h	948	1017	719
V/C Ratio	0.197	0.556	0.587
Control Delay, s/veh	5.7	10.7	14.8
LOS	A	B	B
95th %tile Queue, veh	1	4	4

Intersection																
Intersection Delay, s/veh	8.4															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0	0	6	3	106	0	61	70	0	0	0	325	330
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, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	6	3	113	0	65	74	0	0	0	346	351
Number of Lanes	0	0	0	0	0	0	2	0	0	1	2	0	0	0	2	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	9.4	9	8.1
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	80%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	20%	1%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	99%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	61	35	35	8	108	163	163	330
LT Vol	61	0	0	6	0	0	0	0
Through Vol	0	35	35	2	2	163	163	0
RT Vol	0	0	0	0	106	0	0	330
Lane Flow Rate	65	37	37	8	114	173	173	351
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.115	0.061	0.043	0.014	0.172	0.251	0.251	0.271
Departure Headway (Hd)	6.388	5.885	4.14	6.509	5.422	5.225	5.225	2.779
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	557	604	854	546	655	686	686	1285
Service Time	4.169	3.666	1.92	4.298	3.211	2.96	2.96	0.513
HCM Lane V/C Ratio	0.117	0.061	0.043	0.015	0.174	0.252	0.252	0.273
HCM Control Delay	10	9.1	7.1	9.4	9.4	9.7	9.7	6.6
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.1	0	0.6	1	1	1.1

Intersection																
Intersection Delay, s/veh11.3																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	60	1	23	0	0	0	0	0	0	70	36	1	300	30	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	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	64	1	24	0	0	0	0	0	0	74	38	1	319	32	0
Number of Lanes	0	1	1	0	0	0	0	0	0	0	1	0	0	1	2	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	9.4	9.2	12.5
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%
Vol Thru, %	66%	0%	4%	0%	100%	100%
Vol Right, %	34%	0%	96%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	106	60	24	301	15	15
LT Vol	0	60	0	301	0	0
Through Vol	70	0	1	0	15	15
RT Vol	36	0	23	0	0	0
Lane Flow Rate	113	64	26	320	16	16
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	0.167	0.113	0.037	0.48	0.022	0.022
Departure Headway (Hd)	5.339	6.352	5.176	5.398	4.896	4.896
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	670	563	689	666	731	731
Service Time	3.089	4.104	2.928	3.132	2.63	2.63
HCM Lane V/C Ratio	0.169	0.114	0.038	0.48	0.022	0.022
HCM Control Delay	9.2	9.9	8.1	13	7.7	7.7
HCM Lane LOS	A	A	A	B	A	A
HCM 95th-tile Q	0.6	0.4	0.1	2.6	0.1	0.1

### **J.3.B – EXISTING PLUS PROJECT CONDITIONS**



Intersection												
Intersection Delay, s/veh	8.9											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	35	2	7	0	2	15	95	0	14	220	2
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	2	7	0	2	16	99	0	15	229	2
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	9.2	8.8	9.1
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	80%	2%	100%	0%	0%
Vol Thru, %	0%	100%	97%	5%	13%	0%	100%	81%
Vol Right, %	0%	0%	3%	16%	85%	0%	0%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	147	75	44	112	53	85	52
LT Vol	14	0	0	35	2	53	0	0
Through Vol	0	147	73	2	15	0	85	42
RT Vol	0	0	2	7	95	0	0	10
Lane Flow Rate	15	153	78	46	117	55	88	55
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.023	0.219	0.112	0.076	0.163	0.088	0.128	0.077
Departure Headway (Hd)	5.672	5.168	5.15	5.973	5.025	5.713	5.209	5.075
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	630	692	694	598	712	626	686	704
Service Time	3.418	2.915	2.896	3.732	2.775	3.462	2.958	2.823
HCM Lane V/C Ratio	0.024	0.221	0.112	0.077	0.164	0.088	0.128	0.078
HCM Control Delay	8.6	9.4	8.6	9.2	8.8	9	8.7	8.2
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.4	0.2	0.6	0.3	0.4	0.2

**Intersection**

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	53	127	10
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	55	132	10
Number of Lanes	0	1	2	0

**Approach** SB

Opposing Approach NB

Opposing Lanes 3

Conflicting Approach Left WB

Conflicting Lanes Left 1

Conflicting Approach Right EB

Conflicting Lanes Right 1

HCM Control Delay 8.6

HCM LOS A

**Lane**

HCM 2010 Signalized Intersection Summary  
 2: Mace Blvd & Cowell Blvd

Existing Plus MRIC  
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	123	90	14	31	102	129	17	265	69	67	145	0
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	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	128	94	0	32	106	0	18	276	0	70	151	0
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	380	0	68	262	0	41	710	0	125	879	0
Arrive On Green	0.10	0.20	0.00	0.04	0.14	0.00	0.02	0.20	0.00	0.07	0.25	0.00
Sat Flow, veh/h	1774	1863	0	1774	1863	0	1774	3632	0	1774	3632	0
Grp Volume(v), veh/h	128	94	0	32	106	0	18	276	0	70	151	0
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	0	1774	1770	0	1774	1770	0
Q Serve(g_s), s	2.4	1.5	0.0	0.6	1.8	0.0	0.3	2.4	0.0	1.3	1.2	0.0
Cycle Q Clear(g_c), s	2.4	1.5	0.0	0.6	1.8	0.0	0.3	2.4	0.0	1.3	1.2	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	181	380	0	68	262	0	41	710	0	125	879	0
V/C Ratio(X)	0.71	0.25	0.00	0.47	0.40	0.00	0.44	0.39	0.00	0.56	0.17	0.00
Avail Cap(c_a), veh/h	558	586	0	558	586	0	558	2026	0	558	2026	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)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.2	11.7	0.0	16.5	13.7	0.0	16.8	12.1	0.0	15.7	10.3	0.0
Incr Delay (d2), s/veh	5.0	0.3	0.0	5.0	1.0	0.0	7.4	0.3	0.0	3.9	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(-26165%),veh/ln	0.8	0.0	0.4	1.0	0.0	0.3	1.2	0.0	0.8	0.6	0.0	
LnGrp Delay(d),s/veh	20.2	12.0	0.0	21.5	14.7	0.0	24.2	12.5	0.0	19.6	10.4	0.0
LnGrp LOS	C	B		C	B		C	B		B	B	
Approach Vol, veh/h		222			138			294			221	
Approach Delay, s/veh		16.7			16.3			13.2			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	6.5	12.0	5.3	11.1	4.8	13.7	7.6	8.9				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	20.0	11.0	11.0	11.0	20.0	11.0	11.0					
Max Q Clear Time (g_c+1), s	4.4	2.6	3.5	2.3	3.2	4.4	3.8					
Green Ext Time (p_c), s	0.1	2.3	0.0	0.6	0.0	2.4	0.2	0.6				

Intersection Summary

HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

Notes

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



HCM 2010 Signalized Intersection Summary  
7: 2nd St & Faraday Ave

Existing Plus MRIC  
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	36	1	14	5	0	9	42	260	8	76	492	54
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		0.96	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	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	38	1	15	5	0	9	44	271	8	79	512	56
Adj No. of Lanes	1	1	0	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	5	76	10	0	33	70	792	23	106	859	714
Arrive On Green	0.03	0.05	0.05	0.01	0.00	0.02	0.04	0.44	0.44	0.06	0.46	0.46
Sat Flow, veh/h	1774	100	1498	1774	0	1528	1774	1799	53	1774	1863	1549
Grp Volume(v), veh/h	38	0	16	5	0	9	44	0	279	79	512	56
Grp Sat Flow(s),veh/h/ln	1774	0	1598	1774	0	1528	1774	0	1852	1774	1863	1549
Q Serve(g_s), s	0.8	0.0	0.4	0.1	0.0	0.2	0.9	0.0	3.7	1.6	7.6	0.8
Cycle Q Clear(g_c), s	0.8	0.0	0.4	0.1	0.0	0.2	0.9	0.0	3.7	1.6	7.6	0.8
Prop In Lane	1.00		0.94	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	62	0	82	10	0	33	70	0	815	106	859	714
V/C Ratio(X)	0.61	0.00	0.20	0.52	0.00	0.27	0.63	0.00	0.34	0.74	0.60	0.08
Avail Cap(c_a), veh/h	191	0	472	191	0	452	191	0	1269	191	1277	1062
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	1.00	1.00
Uniform Delay (d), s/veh	17.7	0.0	16.9	18.5	0.0	17.9	17.6	0.0	6.9	17.2	7.5	5.6
Incr Delay (d2), s/veh	9.5	0.0	2.5	37.5	0.0	9.3	9.1	0.0	0.5	9.7	1.4	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(-26165%),veh/ln	0.0	0.0	0.2	0.1	0.0	0.2	0.6	0.0	2.0	1.1	4.2	0.3
LnGrp Delay(d),s/veh	27.2	0.0	19.4	55.9	0.0	27.2	26.7	0.0	7.4	26.9	8.9	5.7
LnGrp LOS	C		B	E		C	C		A	C	A	A
Approach Vol, veh/h		54			14			323			647	
Approach Delay, s/veh		24.9			37.5			10.0			10.8	
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	6.2	20.9	4.2	5.9	5.5	21.6	5.3	4.8				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	13.0	25.5	4.0	11.0	4.0	25.5	4.0	11.0				
Max Q Clear Time (g_c+1), s	13.6	5.7	2.1	2.4	2.9	9.6	2.8	2.2				
Green Ext Time (p_c), s	0.0	8.6	0.0	0.1	0.0	7.5	0.0	0.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				11.7								
HCM 2010 LOS				B								

**Intersection**

Int Delay, s/veh 3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	63	318	281	109	138	11
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	150	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	331	293	114	144	11

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	293	0	756
Stage 1	-	-	293
Stage 2	-	-	463
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1269	-	746
Stage 1	-	-	757
Stage 2	-	-	634
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1269	-	746
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	757
Stage 2	-	-	601

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	20.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1269	-	-	-	356	746
HCM Lane V/C Ratio	0.052	-	-	-	0.404	0.015
HCM Control Delay (s)	8	-	-	-	21.8	9.9
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.2	-	-	-	1.9	0

**Intersection**

Int Delay, s/veh 2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	19	288	232	42	106	0
Conflicting Peds, #/hr	0	0	0	5	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	125	0	125
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	300	242	44	110	0







Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	242	0	582
Stage 1	-	-	242
Stage 2	-	-	340
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1324	-	475
Stage 1	-	-	798
Stage 2	-	-	721
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1324	-	468
Mov Cap-2 Maneuver	-	-	468
Stage 1	-	-	798
Stage 2	-	-	710

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1324	-	-	-	468	-
HCM Lane V/C Ratio	0.015	-	-	-	0.236	-
HCM Control Delay (s)	7.8	-	-	-	15.1	0
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0	-	-	-	0.9	-

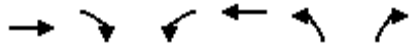
HCM 2010 Signalized Intersection Summary  
 10: Harper JR HS Access & Covell Blvd

Existing Plus MRIC  
 AM Peak Hour

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑	↑	↑		
Volume (veh/h)	905	29	45	266	10	1		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	0.99		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1827	1814	1900		
Adj Flow Rate, veh/h	943	30	47	277	10	1		
Adj No. of Lanes	2	1	1	1	0	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	2	4	0	0		
Cap, veh/h	2213	989	108	1437	18	2		
Arrive On Green	0.63	0.63	0.06	0.79	0.01	0.01		
Sat Flow, veh/h	3632	1582	1774	1827	1429	143		
Grp Volume(v), veh/h	943	30	47	277	12	0		
Grp Sat Flow(s),veh/h/ln	1770	1582	1774	1827	1715	0		
Q Serve(g_s), s	5.4	0.3	1.0	1.5	0.3	0.0		
Cycle Q Clear(g_c), s	5.4	0.3	1.0	1.5	0.3	0.0		
Prop In Lane		1.00	1.00		0.83	0.08		
Lane Grp Cap(c), veh/h	2213	989	108	1437	21	0		
V/C Ratio(X)	0.43	0.03	0.43	0.19	0.56	0.00		
Avail Cap(c_a), veh/h	2754	1231	713	1437	1119	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	3.8	2.9	18.0	1.1	19.6	0.0		
Incr Delay (d2), s/veh	0.1	0.0	5.8	0.1	20.9	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	2.7	0.1	0.7	0.7	0.3	0.0		
LnGrp Delay(d),s/veh	3.9	2.9	23.8	1.1	40.5	0.0		
LnGrp LOS	A	A	C	A	D			
Approach Vol, veh/h	973			324	12			
Approach Delay, s/veh	3.9			4.4	40.5			
Approach LOS	A			A	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.4	28.9				35.3		4.5
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	31.0				31.0		26.0
Max Q Clear Time (g_c+I1), s	3.0	7.4				3.5		2.3
Green Ext Time (p_c), s	0.1	8.6				9.2		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			4.4					
HCM 2010 LOS			A					
<b>Notes</b>								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary  
 11: Alhambra Dr & Covell Blvd

Existing Plus MRIC  
 AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑	↑	↑		
Volume (veh/h)	851	359	5	271	176	83		
Number	2	12	1	6	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	1863	1863	1520	1845	1863	1900		
Adj Flow Rate, veh/h	886	0	5	282	183	0		
Adj No. of Lanes	2	1	1	1	0	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	25	3	0	0		
Cap, veh/h	1600	716	10	1060	240	0		
Arrive On Green	0.45	0.00	0.01	0.57	0.14	0.00		
Sat Flow, veh/h	3632	1583	1448	1845	1765	0		
Grp Volume(v), veh/h	886	0	5	282	184	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1448	1845	1775	0		
Q Serve(g_s), s	6.3	0.0	0.1	2.7	3.5	0.0		
Cycle Q Clear(g_c), s	6.3	0.0	0.1	2.7	3.5	0.0		
Prop In Lane		1.00	1.00		0.99	0.00		
Lane Grp Cap(c), veh/h	1600	716	10	1060	241	0		
V/C Ratio(X)	0.55	0.00	0.51	0.27	0.76	0.00		
Avail Cap(c_a), veh/h	1997	893	335	1060	539	0		
HCM Platoon Ratio	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	0.00		
Uniform Delay (d), s/veh	6.9	0.0	17.1	3.7	14.4	0.0		
Incr Delay (d2), s/veh	0.5	0.0	35.4	0.2	4.9	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.1	1.4	2.0	0.0		
LnGrp Delay(d),s/veh	7.4	0.0	52.6	3.9	19.3	0.0		
LnGrp LOS	A		D	A	B			
Approach Vol, veh/h	886			287	184			
Approach Delay, s/veh	7.4			4.8	19.3			
Approach LOS	A			A	B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	4.2	21.1		9.2		25.4		
Change Period (Y+Rc), s	4.0	5.5		4.5		5.5		
Max Green Setting (Gmax), s	19.5	19.5		10.5		19.5		
Max Q Clear Time (g_c+I), s	8.3	8.3		5.5		4.7		
Green Ext Time (p_c), s	0.0	7.3		0.2		9.2		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			8.5					
HCM 2010 LOS			A					
<b>Notes</b>								
User approved pedestrian interval to be less than phase max green.								

Intersection													
Int Delay, s/veh	2.8												

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	1144	29	1	9	437	0	34	0	65	0	0	1
Conflicting Peds, #/hr	0	0	7	0	0	0	16	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	3	2	10	4	2	2	2	4	2	2	2
Mvmt Flow	0	1192	30	1	9	455	0	35	0	68	0	0	1



















Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	455	0	0	960	1222	0	0	1455	1683	627	1072	1698	235
Stage 1	-	-	-	-	-	-	-	1207	1207	-	476	476	-
Stage 2	-	-	-	-	-	-	-	248	476	-	596	1222	-
Critical Hdwy	4.14	-	-	6.44	4.3	-	-	7.54	6.54	6.98	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.52	2.3	-	-	3.52	4.02	3.34	3.52	4.02	3.32
Pot Cap-1 Maneuver	1102	-	-	352	524	-	-	91	93	422	175	91	767
Stage 1	-	-	-	-	-	-	-	194	254	-	539	555	-
Stage 2	-	-	-	-	-	-	-	734	555	-	457	250	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1096	-	-	481	481	-	-	90	93	416	145	91	763
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	90	93	-	145	91	-
Stage 1	-	-	-	-	-	-	-	194	254	-	539	555	-
Stage 2	-	-	-	-	-	-	-	729	555	-	378	250	-

Approach	EB		WB				NB			SB		
HCM Control Delay, s	0		0.3				46.5			9.7		
HCM LOS							E			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	185	1096	-	-	481	-	-	763
HCM Lane V/C Ratio	0.557	-	-	-	0.022	-	-	0.001
HCM Control Delay (s)	46.5	0	-	-	12.6	-	-	9.7
HCM Lane LOS	E	A	-	-	B	-	-	A
HCM 95th %tile Q(veh)	2.9	0	-	-	0.1	-	-	0

HCM 2010 Signalized Intersection Summary  
 13: Bike Dummy/Wright Blvd & Covell Blvd

Existing Plus MRIC  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	31	820	0	0	417	55	0	0	0	353	0	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	1810	1863	0	0	1845	1900	0	1863	0	1863	0	1863
Adj Flow Rate, veh/h	32	854	0	0	434	0	0	0	0	368	0	0
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	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, %	5	2	0	0	3	3	0	2	0	2	0	2
Cap, veh/h	65	2112	0	0	1606	0	0	5	0	450	0	0
Arrive On Green	0.04	0.60	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.15	0.00	0.00
Sat Flow, veh/h	1723	3632	0	0	3689	0	0	-74510	0	1774	368	
Grp Volume(v), veh/h	32	854	0	0	434	0	0	0	0	368	0.0	
Grp Sat Flow(s),veh/h/ln	1723	1770	0	0	1752	0	0	1863	0	1774	A	
Q Serve(g_s), s	0.7	5.1	0.0	0.0	3.0	0.0	0.0	0.0	0.0	15.4		
Cycle Q Clear(g_c), s	0.7	5.1	0.0	0.0	3.0	0.0	0.0	0.0	0.0	15.4		
Prop In Lane	1.00		0.00	0.00		0.00	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	65	2112	0	0	1606	0	0	5	0	0		
V/C Ratio(X)	0.50	0.40	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00		
Avail Cap(c_a), veh/h	261	2141	0	0	2121	0	0	517	0	0		
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	1.00	0.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	18.7	4.3	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	5.8	0.3	0.0	0.0	0.2	0.0	0.0	0.0	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		
%ile BackOfQ(-26165%),veh/ln	0.4	2.5	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0		
LnGrp Delay(d),s/veh	24.5	4.5	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0		
LnGrp LOS	C	A			A							
Approach Vol, veh/h		886			434			0				
Approach Delay, s/veh		5.2			6.8			0.0				
Approach LOS		A			A							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		29.7			5.5	24.2	10.0	0.0				
Change Period (Y+Rc), s		6.0			4.0	6.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0			6.0	24.0	6.0	11.0				
Max Q Clear Time (g_c+I1), s		7.1			2.7	5.0	17.4	0.0				
Green Ext Time (p_c), s		12.0			0.0	13.1	0.0	0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			4.5									
HCM 2010 LOS			A									

**Intersection**

Int Delay, s/veh 1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	840	12	17	510	42	11
Conflicting Peds, #/hr	0	5	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	875	12	18	531	44	11

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	888
Stage 1	-	-	881
Stage 2	-	-	301
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	758
Stage 1	-	-	365
Stage 2	-	-	725
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	758
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	365
Stage 2	-	-	705

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	28.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	207	-	-	758	-
HCM Lane V/C Ratio	0.267	-	-	0.023	-
HCM Control Delay (s)	28.6	-	-	9.9	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	1	-	-	0.1	-



Intersection														
Int Delay, s/veh	1.5													

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	2	820	15	21	531	0	32	1	31	1	0	16
Conflicting Peds, #/hr	0	0	0	7	0	0	11	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	Free	-	-	None	-	-	Stop
Storage Length	-	125	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	2	854	16	22	553	0	33	1	32	1	0	17













Major/Minor	Major1				Major2			Minor1			Minor2		
Conflicting Flow All	420	553	0	0	870	0	0	1188	1465	435	1031	1473	284
Stage 1	-	-	-	-	-	-	-	868	868	-	597	597	-
Stage 2	-	-	-	-	-	-	-	320	597	-	434	876	-
Critical Hdwy	6.44	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	778	1013	-	-	770	-	0	144	127	569	187	126	713
Stage 1	-	-	-	-	-	-	0	314	368	-	456	490	-
Stage 2	-	-	-	-	-	-	0	666	490	-	570	365	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	909	909	-	-	770	-	-	137	123	569	171	122	709
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	137	123	-	171	122	-
Stage 1	-	-	-	-	-	-	-	314	368	-	456	476	-
Stage 2	-	-	-	-	-	-	-	628	476	-	536	365	-

Approach	EB				WB			NB			SB		
HCM Control Delay, s	0				0.4			28.9			9.9		
HCM LOS								D			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	216	909	-	-	770	-	753
HCM Lane V/C Ratio	0.309	0.003	-	-	0.028	-	0.024
HCM Control Delay (s)	28.9	9	-	-	9.8	-	9.9
HCM Lane LOS	D	A	-	-	A	-	A
HCM 95th %tile Q(veh)	1.3	0	-	-	0.1	-	0.1

HCM 2010 Signalized Intersection Summary  
 16: Birch Ln/Bike lane & Covell Blvd

Existing Plus MRIC  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑		↑		↑		↑	
Volume (veh/h)	0	801	73	53	521	0	71	0	23	0	0	0
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		0.96	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	0	1845	1863	1863	1863	0	1863	0	1863	0	1863	0
Adj Flow Rate, veh/h	0	834	76	55	543	0	74	0	24	0	0	0
Adj No. of Lanes	0	2	1	1	2	0	1	0	1	0	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, %	0	3	2	2	2	0	2	0	2	0	2	0
Cap, veh/h	0	1818	792	107	2484	0	93	0	0	0	6	0
Arrive On Green	0.00	0.52	0.52	0.06	0.70	0.00	0.05	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3597	1526	1774	3632	0	1774	74		0	-74510	0
Grp Volume(v), veh/h	0	834	76	55	543	0	74	29.3		0	0	0
Grp Sat Flow(s),veh/h/ln	0	1752	1526	1774	1770	0	1774	C		0	1863	0
Q Serve(g_s), s	0.0	4.9	0.8	1.0	1.8	0.0	1.3			0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.9	0.8	1.0	1.8	0.0	1.3			0.0	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00	1.00			0.00		0.00
Lane Grp Cap(c), veh/h	0	1818	792	107	2484	0	93			0	6	0
V/C Ratio(X)	0.00	0.46	0.10	0.52	0.22	0.00	0.79			0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	3014	1313	872	2826	0	1417			0	1201	0
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)	0.00	1.00	1.00	1.00	1.00	0.00	1.00			0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	4.9	4.0	14.8	1.7	0.0	15.3			0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.1	3.8	0.0	0.0	14.0			0.0	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
%ile BackOfQ(-26165%),veh/ln	0.0	2.4	0.3	0.6	0.8	0.0	1.0			0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	5.1	4.0	18.6	1.8	0.0	29.3			0.0	0.0	0.0
LnGrp LOS		A	A	B	A		C					
Approach Vol, veh/h		910			598						0	
Approach Delay, s/veh		5.0			3.3						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	6.0	20.9	5.7	0.0		26.9						
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0		4.0						
Max Green Setting (Gmax), s	16.0	28.0	26.0	21.0		26.0						
Max Q Clear Time (g_c+I1), s	3.0	6.9	3.3	0.0		3.8						
Green Ext Time (p_c), s	0.1	10.0	0.2	0.0		10.3						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			5.5									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary  
 17: Pole Line Rd & Covell Blvd

Existing Plus MRIC  
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	159	730	6	54	423	115	112	154	16	128	283	348
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		0.87	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	1863	1862	1900	1827	1863	1900	1845	1712	1863	1845	1827	1863
Adj Flow Rate, veh/h	166	760	0	56	441	0	117	160	17	133	295	362
Adj No. of Lanes	1	2	0	1	2	0	1	1	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, %	2	2	2	4	2	2	3	11	2	3	4	2
Cap, veh/h	216	1205	0	86	950	0	153	389	313	171	434	369
Arrive On Green	0.12	0.34	0.00	0.05	0.27	0.00	0.09	0.23	0.23	0.10	0.24	0.24
Sat Flow, veh/h	1774	3632	0	1740	3632	0	1757	1712	1380	1757	1827	1551
Grp Volume(v), veh/h	166	760	0	56	441	0	117	160	17	133	295	362
Grp Sat Flow(s),veh/h/ln	1774	1769	0	1740	1770	0	1757	1712	1380	1757	1827	1551
Q Serve(g_s), s	5.7	11.4	0.0	2.0	6.6	0.0	4.1	5.0	0.6	4.7	9.3	14.6
Cycle Q Clear(g_c), s	5.7	11.4	0.0	2.0	6.6	0.0	4.1	5.0	0.6	4.7	9.3	14.6
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	1205	0	86	950	0	153	389	313	171	434	369
V/C Ratio(X)	0.77	0.63	0.00	0.65	0.46	0.00	0.77	0.41	0.05	0.78	0.68	0.98
Avail Cap(c_a), veh/h	731	1682	0	579	1683	0	445	407	328	334	434	369
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	17.5	0.0	29.4	19.3	0.0	28.2	20.8	19.1	27.8	21.9	23.9
Incr Delay (d2), s/veh	5.7	0.5	0.0	8.0	0.4	0.0	7.8	0.7	0.1	7.4	4.2	41.9
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(-26165%),veh/ln	5.6	0.0	1.1	3.2	0.0	2.3	2.4	0.2	2.6	5.2	10.5	
LnGrp Delay(d),s/veh	32.6	18.0	0.0	37.4	19.6	0.0	36.0	21.5	19.1	35.2	26.1	65.8
LnGrp LOS	C	B		D	B		D	C	B	D	C	E
Approach Vol, veh/h		926			497			294			790	
Approach Delay, s/veh		20.6			21.6			27.1			45.8	
Approach LOS		C			C			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	11.7	21.9	9.5	20.0	7.1	26.5	10.1	19.3				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	20.0	30.0	16.0	15.0	21.0	30.0	12.0	15.0				
Max Q Clear Time (g_c+1), s	7.5	8.6	6.1	16.6	4.0	13.4	6.7	7.0				
Green Ext Time (p_c), s	0.4	8.4	0.2	0.0	0.1	7.4	0.1	2.7				

Intersection Summary

HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Notes

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

**Intersection**

Int Delay, s/veh 1.5

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Vol, veh/h	910	210	1	82	734	34	84
Conflicting Peds, #/hr	0	5	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	-	None	-	Yield
Storage Length	-	-	-	200	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	5	2
Mvmt Flow	948	219	1	85	765	35	88



















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1503
Stage 1	-	-	948
Stage 2	-	-	555
Critical Hdwy	-	6.44	6.9
Critical Hdwy Stg 1	-	-	5.9
Critical Hdwy Stg 2	-	-	5.9
Follow-up Hdwy	-	2.52	3.55
Pot Cap-1 Maneuver	-	315	109
Stage 1	-	-	330
Stage 2	-	-	530
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	705	109
Mov Cap-2 Maneuver	-	-	109
Stage 1	-	-	330
Stage 2	-	-	528

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	19
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	378	-	-	705	-
HCM Lane V/C Ratio	0.325	-	-	0.123	-
HCM Control Delay (s)	19	-	-	10.8	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1.4	-	-	0.4	-

HCM 2010 Signalized Intersection Summary  
 19: J St & Covell Blvd

Existing Plus MRIC  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	1027	128	44	723	0	145	0	73	2	0	1
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	1863	1857	1900	1743	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	2	1070	0	46	753	0	151	0	0	2	0	0
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	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, %	2	2	2	9	2	2	2	2	2	2	2	2
Cap, veh/h	4	1684	0	64	1818	0	205	0	0	4	0	0
Arrive On Green	0.00	0.48	0.00	0.04	0.51	0.00	0.12	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1774	3621	0	1660	3632	0	1774	0	0	1774	0	0
Grp Volume(v), veh/h	2	1070	0	46	753	0	151	0	0	2	0	0
Grp Sat Flow(s),veh/h/ln	1774	1764	0	1660	1770	0	1774	0	0	1774	0	0
Q Serve(g_s), s	0.1	10.6	0.0	1.3	6.1	0.0	3.8	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.1	10.6	0.0	1.3	6.1	0.0	3.8	0.0	0.0	0.1	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	4	1684	0	64	1818	0	205	0	0	4	0	0
V/C Ratio(X)	0.51	0.64	0.00	0.72	0.41	0.00	0.74	0.00	0.00	0.51	0.00	0.00
Avail Cap(c_a), veh/h	153	2659	0	215	2668	0	1070	0	0	802	0	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)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.1	9.1	0.0	22.1	7.0	0.0	19.8	0.0	0.0	23.1	0.0	0.0
Incr Delay (d2), s/veh	77.9	0.1	0.0	5.5	0.1	0.0	1.9	0.0	0.0	34.0	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(-26165%),veh/ln	0.1	5.1	0.0	0.7	2.9	0.0	2.0	0.0	0.0	0.1	0.0	0.0
LnGrp Delay(d),s/veh	101.0	9.3	0.0	27.6	7.0	0.0	21.8	0.0	0.0	57.1	0.0	0.0
LnGrp LOS	F	A		C	A		C			E		
Approach Vol, veh/h		1072			799			151				2
Approach Delay, s/veh		9.4			8.2			21.8				57.1
Approach LOS		A			A			C				E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	27.2		4.1	4.1	28.9		9.4				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	6.0	35.0		21.0	4.0	35.0		28.0				
Max Q Clear Time (g_c+I1), s	3.3	12.6		2.1	2.1	8.1		5.8				
Green Ext Time (p_c), s	0.0	9.6		0.0	0.0	10.3		0.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			9.9									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary  
20: F St & Covell Blvd

Existing Plus MRIC  
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Volume (veh/h)	36	849	76	216	583	70	46	88	136	172	208	67
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	1863	1863	1900	1845	1863	1900	1845	1852	1900	1863	1845	1900
Adj Flow Rate, veh/h	38	884	0	225	607	0	48	92	0	179	217	0
Adj No. of Lanes	1	2	0	2	2	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, %	2	2	2	3	2	2	3	2	2	2	2	2
Cap, veh/h	69	1303	0	341	1520	0	80	226	0	236	386	0
Arrive On Green	0.04	0.37	0.00	0.10	0.43	0.00	0.05	0.12	0.00	0.13	0.21	0.00
Sat Flow, veh/h	1774	3632	0	3408	3632	0	1757	1852	0	1774	1845	0
Grp Volume(v), veh/h	38	884	0	225	607	0	48	92	0	179	217	0
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1704	1770	0	1757	1852	0	1774	1845	0
Q Serve(g_s), s	1.3	12.9	0.0	3.9	7.3	0.0	1.6	2.8	0.0	6.0	6.5	0.0
Cycle Q Clear(g_c), s	1.3	12.9	0.0	3.9	7.3	0.0	1.6	2.8	0.0	6.0	6.5	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	69	1303	0	341	1520	0	80	226	0	236	386	0
V/C Ratio(X)	0.55	0.68	0.00	0.66	0.40	0.00	0.60	0.41	0.00	0.76	0.56	0.00
Avail Cap(c_a), veh/h	751	2306	0	1443	2306	0	744	784	0	751	781	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)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.0	16.3	0.0	26.6	12.1	0.0	28.7	24.9	0.0	25.7	21.7	0.0
Incr Delay (d2), s/veh	2.5	0.2	0.0	0.8	0.1	0.0	7.0	1.2	0.0	6.0	1.5	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(-26165%),veh/ln	6.3	0.0	1.9	3.6	0.0	1.0	1.5	0.0	3.3	3.4	0.0	
LnGrp Delay(d),s/veh	31.5	16.6	0.0	27.4	12.1	0.0	35.8	26.1	0.0	31.6	23.3	0.0
LnGrp LOS	C	B		C	B		D	C		C	C	
Approach Vol, veh/h		922			832			140			396	
Approach Delay, s/veh		17.2			16.3			29.4			27.1	
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	10.1	27.6	6.8	16.9	6.4	31.4	12.2	11.5				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	20.0	40.0	26.0	26.0	26.0	40.0	26.0	26.0				
Max Q Clear Time (g_c+1), s	11.9	14.9	3.6	8.5	3.3	9.3	8.0	4.8				
Green Ext Time (p_c), s	0.4	7.7	0.1	1.9	0.0	8.1	0.6	2.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				19.3								
HCM 2010 LOS				B								

Intersection																
Intersection Delay, s/veh10.3																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	74	64	27	0	32	172	4	0	48	107	38	0	2	68	94
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	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	77	67	28	0	33	179	4	0	50	111	40	0	2	71	98
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.8	10.8	10.1	10.2
HCM LOS	A	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	74%	0%	70%	0%	98%	0%	42%
Vol Right, %	0%	26%	0%	30%	0%	2%	0%	58%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	145	74	91	32	176	2	162
LT Vol	48	0	74	0	32	0	2	0
Through Vol	0	107	0	64	0	172	0	68
RT Vol	0	38	0	27	0	4	0	94
Lane Flow Rate	50	151	77	95	33	183	2	169
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.089	0.24	0.137	0.15	0.059	0.297	0.004	0.26
Departure Headway (Hd)	6.405	5.714	6.411	5.695	6.346	5.824	6.463	5.546
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	561	630	560	630	565	618	555	648
Service Time	4.133	3.442	4.142	3.426	4.074	3.553	4.191	3.274
HCM Lane V/C Ratio	0.089	0.24	0.138	0.151	0.058	0.296	0.004	0.261
HCM Control Delay	9.8	10.2	10.2	9.4	9.5	11	9.2	10.2
HCM Lane LOS	A	B	B	A	A	B	A	B
HCM 95th-tile Q	0.3	0.9	0.5	0.5	0.2	1.2	0	1

**Intersection**

Int Delay, s/veh 1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	22	0	23	1	4	2	1	88	138	2	1	264	59
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	0	-	175	-	-	-	-	150	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	0	24	1	4	2	1	92	144	2	1	275	61

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	641	641	311	650	671	145	360	338	0	0	146	0	0
Stage 1	310	310	-	328	330	-	-	-	-	-	-	-	-
Stage 2	331	331	-	322	341	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	-	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	-	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	388	393	729	382	378	902	-	1221	-	-	1436	-	-
Stage 1	700	659	-	685	646	-	-	-	-	-	-	-	-
Stage 2	682	645	-	690	639	-	-	-	-	-	-	-	-
Platoon blocked, %													
Mov Cap-1 Maneuver	383	392	727	369	377	902	-96	-96	-	-	1436	-	-
Mov Cap-2 Maneuver	383	392	-	369	377	-	-	-	-	-	-	-	-
Stage 1	700	657	-	685	646	-	-	-	-	-	-	-	-
Stage 2	676	645	-	666	637	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	13.1		0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	+	-	-	383	727	451	1436	-	-
HCM Lane V/C Ratio	-	-	-	0.06	0.033	0.016	0.001	-	-
HCM Control Delay (s)	-	-	-	15	10.1	13.1	7.5	-	-
HCM Lane LOS	-	-	-	C	B	B	A	-	-
HCM 95th %tile Q(veh)	-	-	-	0.2	0.1	0	0	-	-

























**Notes**

-: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



HCM 2010 Signalized Intersection Summary  
 34: Cowell Blvd & Pole Line Rd/Lillard Dr

Existing Plus MRIC  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	150	183	153	196	241	0	92	61	138	12	106	137
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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	156	191	0	204	251	0	96	64	0	12	110	0
Adj No. of Lanes	1	1	1	1	2	1	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	386	329	210	760	340	125	348	296	22	240	204
Arrive On Green	0.11	0.21	0.00	0.12	0.21	0.00	0.07	0.19	0.00	0.01	0.13	0.00
Sat Flow, veh/h	1774	1863	1583	1774	3539	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	156	191	0	204	251	0	96	64	0	12	110	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1770	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.9	3.1	0.0	3.9	2.0	0.0	1.8	1.0	0.0	0.2	1.8	0.0
Cycle Q Clear(g_c), s	2.9	3.1	0.0	3.9	2.0	0.0	1.8	1.0	0.0	0.2	1.8	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	198	386	329	210	760	340	125	348	296	22	240	204
V/C Ratio(X)	0.79	0.49	0.00	0.97	0.33	0.00	0.77	0.18	0.00	0.54	0.46	0.00
Avail Cap(c_a), veh/h	210	884	751	210	1260	564	210	773	657	210	773	657
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.6	11.8	0.0	14.8	11.2	0.0	15.4	11.5	0.0	16.5	13.6	0.0
Incr Delay (d2), s/veh	17.2	0.4	0.0	53.1	0.1	0.0	9.5	0.1	0.0	18.5	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(-26165%),veh/ln	2.3	1.6	0.0	4.9	1.0	0.0	1.2	0.5	0.0	0.2	1.0	0.0
LnGrp Delay(d),s/veh	31.8	12.2	0.0	67.9	11.3	0.0	24.9	11.6	0.0	35.0	14.1	0.0
LnGrp LOS	C	B		E	B		C	B		D	B	
Approach Vol, veh/h		347			455			160			122	
Approach Delay, s/veh		21.0			36.7			19.6			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	4.4	10.3	8.0	11.0	6.4	8.3	7.8	11.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	14.0	4.0	16.0	4.0	14.0	4.0	12.0				
Max Q Clear Time (g_c+I1), s	2.2	3.0	5.9	5.1	3.8	3.8	4.9	4.0				
Green Ext Time (p_c), s	0.0	0.4	0.0	1.5	0.0	0.4	0.0	1.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			26.8									
HCM 2010 LOS			C									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary  
 35: Valdora St & Cowell Blvd

Existing Plus MRIC  
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	69	239	17	14	418	27	65	8	42	13	4	56
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		0.94	1.00		0.97	1.00		0.89	1.00		0.46
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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	72	249	18	15	435	28	68	8	44	14	4	58
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	707	565	27	632	520	95	315	238	26	6	92
Arrive On Green	0.06	0.38	0.38	0.02	0.34	0.34	0.05	0.17	0.17	0.01	0.13	0.13
Sat Flow, veh/h	1774	1863	1490	1774	1863	1532	1774	1863	1409	1774	49	706
Grp Volume(v), veh/h	72	249	18	15	435	28	68	8	44	14	0	62
Grp Sat Flow(s),veh/h/ln	1774	1863	1490	1774	1863	1532	1774	1863	1409	1774	0	755
Q Serve(g_s), s	1.6	3.7	0.3	0.3	7.9	0.5	1.5	0.1	1.0	0.3	0.0	3.0
Cycle Q Clear(g_c), s	1.6	3.7	0.3	0.3	7.9	0.5	1.5	0.1	1.0	0.3	0.0	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.94
Lane Grp Cap(c), veh/h	98	707	565	27	632	520	95	315	238	26	0	98
V/C Ratio(X)	0.73	0.35	0.03	0.55	0.69	0.05	0.72	0.03	0.18	0.55	0.00	0.63
Avail Cap(c_a), veh/h	181	1453	1162	181	1453	1194	181	315	238	181	0	116
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	0.00	1.00
Uniform Delay (d), s/veh	18.2	8.7	7.6	19.1	11.1	8.7	18.2	13.6	13.9	19.1	0.0	16.1
Incr Delay (d2), s/veh	9.9	0.1	0.0	16.1	0.5	0.0	9.7	0.0	0.1	16.9	0.0	4.5
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(-26165%),veh/ln	1.9	0.1	0.3	4.1	0.2	1.0	0.1	0.4	0.3	0.0	0.8	
LnGrp Delay(d),s/veh	28.1	8.8	7.6	35.2	11.6	8.7	27.9	13.6	14.1	36.1	0.0	20.6
LnGrp LOS	C	A	A	D	B	A	C	B	B	D		C
Approach Vol, veh/h		339			478			120			76	
Approach Delay, s/veh		12.8			12.2			21.9			23.4	
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	4.6	19.3	6.1	9.1	6.2	17.8	4.6	10.6				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	30.5	30.5	4.0	6.0	4.0	30.5	4.0	6.0				
Max Q Clear Time (g_c+1), s	12.3	5.7	3.5	5.0	3.6	9.9	2.3	3.0				
Green Ext Time (p_c), s	0.0	2.9	0.0	0.0	0.0	2.8	0.0	0.1				

Intersection Summary

HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

Notes

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

HCM 2010 Signalized Intersection Summary  
 36: Drew Ave & Cowell Blvd

Existing Plus MRIC  
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	132	353	17	9	496	53	78	3	19	0	0	25
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		0.97	1.00		0.97	1.00		0.91	1.00		0.46
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	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	138	368	18	9	517	55	81	3	20	0	0	26
Adj No. of Lanes	1	1	0	1	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	902	44	21	789	654	114	47	311	3	193	76
Arrive On Green	0.10	0.51	0.51	0.01	0.42	0.42	0.06	0.24	0.24	0.00	0.00	0.10
Sat Flow, veh/h	1774	1758	86	1774	1863	1543	1774	194	1292	1774	1863	730
Grp Volume(v), veh/h	138	0	386	9	517	55	81	0	23	0	0	26
Grp Sat Flow(s),veh/h/ln	1774	0	1844	1774	1863	1543	1774	0	1486	1774	1863	730
Q Serve(g_s), s	4.2	0.0	7.1	0.3	12.2	1.2	2.5	0.0	0.7	0.0	0.0	1.8
Cycle Q Clear(g_c), s	4.2	0.0	7.1	0.3	12.2	1.2	2.5	0.0	0.7	0.0	0.0	1.8
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	179	0	946	21	789	654	114	0	357	3	193	76
V/C Ratio(X)	0.77	0.00	0.41	0.43	0.66	0.08	0.71	0.00	0.06	0.00	0.00	0.34
Avail Cap(c_a), veh/h	353	0	1001	257	1011	837	257	0	357	257	270	106
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	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	0.0	8.3	27.1	12.7	9.5	25.4	0.0	16.2	0.0	0.0	23.0
Incr Delay (d2), s/veh	6.9	0.0	0.6	13.7	2.0	0.1	7.8	0.0	0.2	0.0	0.0	2.7
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(-26165%),veh/ln	0.0	3.7	0.2	6.6	0.5	1.5	0.0	0.3	0.0	0.0	0.0	0.4
LnGrp Delay(d),s/veh	31.1	0.0	8.9	40.8	14.7	9.6	33.2	0.0	16.4	0.0	0.0	25.7
LnGrp LOS	C		A	D	B	A	C		B			C
Approach Vol, veh/h		524			581			104			26	
Approach Delay, s/veh		14.8			14.7			29.5			25.7	
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	4.6	33.3	7.6	9.7	9.6	28.4	0.0	17.3				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	30.0	30.0	8.0	8.0	11.0	30.0	8.0	8.0				
Max Q Clear Time (g_c+1), s	12.3	9.1	4.5	3.8	6.2	14.2	0.0	2.7				
Green Ext Time (p_c), s	0.0	11.1	0.0	0.0	0.1	9.2	0.0	0.1				

Intersection Summary

HCM 2010 Ctrl Delay	16.2
HCM 2010 LOS	B

Notes

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

**Intersection**

Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	97	124	0	81	126	0	208	55
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	101	129	0	84	131	0	217	57
Number of Lanes	0	1	1	0	1	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	8.9	9.7	11.2
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	79%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%
Vol Right, %	21%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	263	97	124	81	126
LT Vol	208	0	0	81	0
Through Vol	0	97	0	0	126
RT Vol	55	0	124	0	0
Lane Flow Rate	274	101	129	84	131
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.382	0.154	0.172	0.14	0.2
Departure Headway (Hd)	5.018	5.499	4.792	5.992	5.486
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	712	648	741	595	650
Service Time	3.076	3.274	2.566	3.768	3.263
HCM Lane V/C Ratio	0.385	0.156	0.174	0.141	0.202
HCM Control Delay	11.2	9.3	8.6	9.8	9.6
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1.8	0.5	0.6	0.5	0.7

**Intersection**

Intersection Delay, s/veh 8.5  
Intersection LOS A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	111	61	1	0	0	71	9	0	12	5	0	0	7	1	105
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	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	116	64	1	0	0	74	9	0	13	5	0	0	7	1	109
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.9	8.3	8.5	8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	98%	100%	89%	0%	1%
Vol Right, %	0%	0%	0%	2%	0%	11%	0%	99%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	5	111	62	0	80	7	106
LT Vol	12	0	111	0	0	0	7	0
Through Vol	0	5	0	61	0	71	0	1
RT Vol	0	0	0	1	0	9	0	105
Lane Flow Rate	12	5	116	65	0	83	7	110
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.02	0.008	0.174	0.088	0	0.115	0.012	0.139
Departure Headway (Hd)	5.835	5.332	5.429	4.916	5.029	4.95	5.742	4.542
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	615	672	663	730	0	725	625	792
Service Time	3.559	3.055	3.151	2.638	2.753	2.674	3.46	2.259
HCM Lane V/C Ratio	0.02	0.007	0.175	0.089	0	0.114	0.011	0.139
HCM Control Delay	8.7	8.1	9.3	8.1	7.8	8.3	8.5	8
HCM Lane LOS	A	A	A	A	N	A	A	A
HCM 95th-tile Q	0.1	0	0.6	0.3	0	0.4	0	0.5

HCM 2010 Signalized Intersection Summary  
40: Pole Line Rd & E 5th St

Existing Plus MRIC  
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Volume (veh/h)	40	140	119	126	186	56	182	288	145	135	314	135
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	1776	1820	1900	1810	1831	1900	1863	1863	1900	1863	1863	1827
Adj Flow Rate, veh/h	42	146	0	131	194	0	190	300	0	141	327	0
Adj No. of Lanes	1	2	0	1	2	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, %	7	3	3	5	4	4	2	2	2	2	2	4
Cap, veh/h	48	506	0	167	653	0	488	759	0	509	759	633
Arrive On Green	0.03	0.15	0.00	0.10	0.19	0.00	0.41	0.41	0.00	0.41	0.41	0.00
Sat Flow, veh/h	1691	3550	0	1723	3570	0	1046	1863	0	1073	1863	1553
Grp Volume(v), veh/h	42	146	0	131	194	0	190	300	0	141	327	0
Grp Sat Flow(s),veh/h/ln	1691	1729	0	1723	1739	0	1046	1863	0	1073	1863	1553
Q Serve(g_s), s	0.9	1.4	0.0	2.8	1.8	0.0	5.9	4.2	0.0	4.0	4.7	0.0
Cycle Q Clear(g_c), s	0.9	1.4	0.0	2.8	1.8	0.0	10.6	4.2	0.0	8.2	4.7	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	506	0	167	653	0	488	759	0	509	759	633
V/C Ratio(X)	0.87	0.29	0.00	0.79	0.30	0.00	0.39	0.40	0.00	0.28	0.43	0.00
Avail Cap(c_a), veh/h	455	2418	0	510	2338	0	652	1052	0	677	1052	877
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.0	14.2	0.0	16.4	13.0	0.0	11.7	7.8	0.0	10.7	7.9	0.0
Incr Delay (d2), s/veh	16.3	0.1	0.0	3.1	0.1	0.0	0.2	0.1	0.0	0.1	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(-26165%),veh/ln	0.7	0.0	0.0	1.5	0.9	0.0	1.7	2.2	0.0	1.2	2.4	0.0
LnGrp Delay(d),s/veh	34.3	14.3	0.0	19.5	13.1	0.0	11.9	7.9	0.0	10.8	8.1	0.0
LnGrp LOS	C	B		B	B		B	A		B	A	
Approach Vol, veh/h		188			325			490			468	
Approach Delay, s/veh		18.7			15.7			9.5			8.9	
Approach LOS		B			B			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6			19.2	6.1	12.0		19.2				
Change Period (Y+Rc), s	4.0	* 5		4.0	5.0	5.0		4.0				
Max Green Setting (Gmax), s	10.0	* 26		21.0	10.0	25.0		21.0				
Max Q Clear Time (g_c+1), s	11.0	3.4		10.2	2.9	3.8		12.6				
Green Ext Time (p_c), s	0.1	1.5		2.9	0.0	1.5		2.5				

Intersection Summary

HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

Notes

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

HCM 2010 Signalized Intersection Summary  
41: L St & E 5th St

Existing Plus MRIC  
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	46	215	57	50	353	48	54	67	49	62	149	72
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		0.97	1.00		0.92	1.00		0.83	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	1863	1780	1900	1727	1863	1863	1863	1863	1667	1863	1863	1863
Adj Flow Rate, veh/h	48	224	59	52	368	50	56	70	51	65	155	75
Adj No. of Lanes	1	1	0	1	1	1	1	1	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, %	2	8	8	10	2	2	2	2	14	2	2	2
Cap, veh/h	93	389	102	92	543	423	105	280	177	116	293	236
Arrive On Green	0.05	0.29	0.29	0.06	0.29	0.29	0.06	0.15	0.15	0.07	0.16	0.16
Sat Flow, veh/h	1774	1350	356	1645	1863	1452	1774	1863	1178	1774	1863	1505
Grp Volume(v), veh/h	48	0	283	52	368	50	56	70	51	65	155	75
Grp Sat Flow(s),veh/h/ln	1774	0	1705	1645	1863	1452	1774	1863	1178	1774	1863	1505
Q Serve(g_s), s	1.0	0.0	5.3	1.2	6.5	0.9	1.1	1.2	1.4	1.3	2.9	1.7
Cycle Q Clear(g_c), s	1.0	0.0	5.3	1.2	6.5	0.9	1.1	1.2	1.4	1.3	2.9	1.7
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	93	0	491	92	543	423	105	280	177	116	293	236
V/C Ratio(X)	0.52	0.00	0.58	0.57	0.68	0.12	0.54	0.25	0.29	0.56	0.53	0.32
Avail Cap(c_a), veh/h	379	0	1387	351	1019	794	379	1292	817	379	795	642
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	17.3	0.0	11.4	17.3	11.7	9.7	17.1	14.1	14.1	17.0	14.5	14.0
Incr Delay (d2), s/veh	1.6	0.0	0.4	2.0	0.6	0.0	1.6	0.2	0.3	1.6	0.6	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(-26165%),veh/ln	0.0	0.0	2.5	0.6	3.4	0.4	0.6	0.7	0.5	0.7	1.5	0.7
LnGrp Delay(d),s/veh	18.9	0.0	11.8	19.3	12.3	9.8	18.7	14.2	14.5	18.5	15.1	14.3
LnGrp LOS	B		B	B	B	A	B	B	B	B	B	B
Approach Vol, veh/h		331			470			177			295	
Approach Delay, s/veh		12.8			12.8			15.7			15.6	
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	6.1	15.3	6.2	9.9	6.0	15.4	6.5	9.6				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	30.5	30.5	8.0	16.0	8.0	20.5	8.0	26.0				
Max Q Clear Time (g_c+1), s	7.3	7.3	3.1	4.9	3.0	8.5	3.3	3.4				
Green Ext Time (p_c), s	0.0	2.8	0.0	0.9	0.0	2.3	0.0	1.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			13.9									
HCM 2010 LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary  
57: Pole Line Rd & Bike Dummy/Loyola Dr

Existing Plus MRIC  
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑		↖		↖		↖		↖	↑	
Volume (veh/h)	0	0	0	52	0	86	0	270	37	149	321	0
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		0.87	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	1863	0	1863	0	1863	0	1842	1900	1810	1845	0
Adj Flow Rate, veh/h	0	0	0	54	0	90	0	281	39	155	334	0
Adj No. of Lanes	0	1	0	1	0	1	0	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, %	0	2	0	2	0	2	0	3	3	5	3	0
Cap, veh/h	0	6	0	63	0	0	0	708	98	194	1270	0
Arrive On Green	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.46	0.46	0.11	0.69	0.00
Sat Flow, veh/h	0-55882		0	1774	54		0	1551	215	1723	1845	0
Grp Volume(v), veh/h	0	0	0	54	27.4		0	0	320	155	334	0
Grp Sat Flow(s),veh/h/ln	0	1863	0	1774	C		0	0	1766	1723	1845	0
Q Serve(g_s), s	0.0	0.0	0.0	1.0			0.0	0.0	4.0	2.9	2.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.0			0.0	0.0	4.0	2.9	2.3	0.0
Prop In Lane	0.00		0.00	1.00			0.00		0.12	1.00		0.00
Lane Grp Cap(c), veh/h	0	6	0	63			0	0	806	194	1270	0
V/C Ratio(X)	0.00	0.00	0.00	0.85			0.00	0.00	0.40	0.80	0.26	0.00
Avail Cap(c_a), veh/h	0	391	0	308			0	0	1324	207	1382	0
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)	0.00	0.00	0.00	1.00			0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.0			0.0	0.0	6.0	14.4	2.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	11.4			0.0	0.0	0.1	16.8	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
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.0	0.7			0.0	0.0	2.0	2.3	1.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	27.4			0.0	0.0	6.1	31.3	2.0	0.0
LnGrp LOS				C					A	C	A	
Approach Vol, veh/h		0						320			489	
Approach Delay, s/veh		0.0						6.1			11.3	
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	7.8	20.2	5.4	0.0		28.0						
Change Period (Y+Rc), s	4.0	5.0	* 4.2	3.0		5.0						
Max Green Setting (Gmax), s	4.0	25.0	* 5.8	7.0		25.0						
Max Q Clear Time (g_c+1), s	4.0	6.0	3.0	0.0		4.3						
Green Ext Time (p_c), s	0.0	2.7	0.0	0.0		2.7						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				10.4								
HCM 2010 LOS				B								
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												



**Intersection**

Intersection Delay, s/veh 7.7  
Intersection LOS A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	12	7	12	0	20	18	1	0	8	87	17	0	0	86	21
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	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
Mvmt Flow	0	13	7	13	0	21	19	1	0	8	91	18	0	0	90	22
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	7.5	7.8	7.8	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	39%	51%	0%
Vol Thru, %	78%	23%	46%	80%
Vol Right, %	15%	39%	3%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	112	31	39	107
LT Vol	8	12	20	0
Through Vol	87	7	18	86
RT Vol	17	12	1	21
Lane Flow Rate	117	32	41	111
Geometry Grp	1	1	1	1
Degree of Util (X)	0.132	0.039	0.051	0.125
Departure Headway (Hd)	4.069	4.319	4.551	4.032
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	872	834	791	878
Service Time	2.141	2.32	2.552	2.106
HCM Lane V/C Ratio	0.134	0.038	0.052	0.126
HCM Control Delay	7.8	7.5	7.8	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.1	0.2	0.4

**Intersection**

Int Delay, s/veh 2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	158	14	320	326	16
Conflicting Peds, #/hr	0	7	0	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	4	3	6	3	4
Mvmt Flow	10	165	15	333	340	17

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	718	355	363 0
Stage 1	355	-	- -
Stage 2	363	-	- -
Critical Hdwy	6.42	6.24	4.13 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.336	2.227 -
Pot Cap-1 Maneuver	396	684	1190 -
Stage 1	710	-	- -
Stage 2	704	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	386	680	1190 -
Mov Cap-2 Maneuver	495	-	- -
Stage 1	706	-	- -
Stage 2	691	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1190	-	665	-	-
HCM Lane V/C Ratio	0.012	-	0.263	-	-
HCM Control Delay (s)	8.1	-	12.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	1.1	-	-

**Intersection**

Int Delay, s/veh 4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	52	166	54	139	210	66
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	50	-	-	-	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	173	56	145	219	69

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	476	219	0
Stage 1	219	-	-
Stage 2	257	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	548	821	-
Stage 1	817	-	-
Stage 2	786	-	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	523	821	-
Mov Cap-2 Maneuver	523	-	-
Stage 1	817	-	-
Stage 2	751	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	2.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1350	-	523	821	-	-
HCM Lane V/C Ratio	0.042	-	0.104	0.211	-	-
HCM Control Delay (s)	7.8	0	12.7	10.6	-	-
HCM Lane LOS	A	A	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	0.8	-	-

**Intersection**

Int Delay, s/veh 2.6

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Vol, veh/h	1	8	47	1	60	23	42	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	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	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	1	8	49	1	62	24	44	8

Major/Minor	Minor2		Major1				Major2	
Conflicting Flow All	0	197	49	101	52	0	-	0
Stage 1	0	48	-	-	-	-	-	-
Stage 2	0	149	-	-	-	-	-	-
Critical Hdwy	-	6.42	6.22	-	4.12	-	-	-
Critical Hdwy Stg 1	-	5.42	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.42	-	-	-	-	-	-
Follow-up Hdwy	-	3.518	3.318	-	2.218	-	-	-
Pot Cap-1 Maneuver	0	792	1020	-	1554	-	-	-
Stage 1	0	974	-	-	-	-	-	-
Stage 2	0	879	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	0	792	1020	~ -63	~ -63	-	-	-
Mov Cap-2 Maneuver	0	792	-	-	-	-	-	-
Stage 1	0	974	-	-	-	-	-	-
Stage 2	0	879	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9		0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	+	-	979	-	-
HCM Lane V/C Ratio	-	-	0.059	-	-
HCM Control Delay (s)	-	-	8.9	-	-
HCM Lane LOS	-	-	A	-	-
HCM 95th %tile Q(veh)	-	-	0.2	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 5.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	86	0	5	2	83	52
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	90	0	5	2	86	54

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	90
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1505
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1505
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.3	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	920	-	-	1505	-
HCM Lane V/C Ratio	0.153	-	-	0.003	-
HCM Control Delay (s)	9.6	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

**Intersection**

Int Delay, s/veh 4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	157	8	50	106	0	10
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	164	8	52	110	0	10

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	163	0	442
Stage 1	-	-	107
Stage 2	-	-	335
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1416	-	573
Stage 1	-	-	917
Stage 2	-	-	725
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1416	-	507
Mov Cap-2 Maneuver	-	-	507
Stage 1	-	-	917
Stage 2	-	-	641

Approach	EB	WB	SB
HCM Control Delay, s	7.5	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1416	-	-	-	947
HCM Lane V/C Ratio	0.115	-	-	-	0.011
HCM Control Delay (s)	7.9	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.4	-	-	-	0

Intersection			
Intersection Delay, s/veh	13.3		
Intersection LOS	B		
Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	716	149	188
Demand Flow Rate, veh/h	730	152	192
Vehicles Circulating, veh/h	131	259	50
Vehicles Exiting, veh/h	111	602	361
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	17.0	6.0	5.1
Approach LOS	C	A	A
Lane	Left	Left	Left
Designated Moves	LT	LTR	LR
Assumed Moves	LT	LTR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	730	152	192
Cap Entry Lane, veh/h	991	872	1075
Entry HV Adj Factor	0.980	0.980	0.979
Flow Entry, veh/h	716	149	188
Cap Entry, veh/h	972	855	1052
V/C Ratio	0.736	0.174	0.179
Control Delay, s/veh	17.0	6.0	5.1
LOS	C	A	A
95th %tile Queue, veh	7	1	1

Intersection																
Intersection Delay, s/veh11.4																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0	0	32	2	393	0	25	293	0	0	0	72	33
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	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	33	2	409	0	26	305	0	0	0	75	34
Number of Lanes	0	0	0	0	0	0	2	0	0	1	2	0	0	0	2	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	13.5	9.5	8.8
HCM LOS	B	A	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	97%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	3%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	147	147	33	394	36	36	33
LT Vol	25	0	0	32	0	0	0	0
Through Vol	0	147	147	1	1	36	36	0
RT Vol	0	0	0	0	393	0	0	33
Lane Flow Rate	26	153	153	34	410	38	38	34
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.048	0.259	0.184	0.058	0.56	0.068	0.068	0.039
Departure Headway (Hd)	6.616	6.108	4.347	6.212	5.032	6.54	6.54	4.061
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	544	591	829	580	722	550	550	884
Service Time	4.322	3.814	2.053	3.912	2.732	4.253	4.253	1.774
HCM Lane V/C Ratio	0.048	0.259	0.185	0.059	0.568	0.069	0.069	0.038
HCM Control Delay	9.7	10.9	8	9.3	13.9	9.7	9.7	6.9
HCM Lane LOS	A	B	A	A	B	A	A	A
HCM 95th-tile Q	0.2	1	0.7	0.2	3.5	0.2	0.2	0.1



Intersection																
Intersection Delay, s/veh10.5																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	265	0	50	0	0	0	0	1	0	54	11	0	39	64	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	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	276	0	52	0	0	0	0	1	0	56	11	0	41	67	0
Number of Lanes	0	1	1	0	0	0	0	0	0	0	1	0	0	1	2	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	11.5	9.1	8.2
HCM LOS	B	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%
Vol Thru, %	83%	0%	0%	0%	100%	100%
Vol Right, %	17%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	265	50	39	32	32
LT Vol	0	265	0	39	0	0
Through Vol	55	0	0	0	32	32
RT Vol	11	0	50	0	0	0
Lane Flow Rate	69	276	52	41	33	33
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	0.108	0.423	0.063	0.068	0.051	0.035
Departure Headway (Hd)	5.63	5.521	4.32	6.014	5.51	3.762
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	635	651	827	596	649	948
Service Time	3.378	3.26	2.059	3.752	3.247	1.499
HCM Lane V/C Ratio	0.109	0.424	0.063	0.069	0.051	0.035
HCM Control Delay	9.1	12.3	7.4	9.2	8.5	6.6
HCM Lane LOS	A	B	A	A	A	A
HCM 95th-tile Q	0.4	2.1	0.2	0.2	0.2	0.1

**Intersection**

Int Delay, s/veh 0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	50	261	140	0	905
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	52	272	146	0	943

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	816	345	0
Stage 1	345	-	-
Stage 2	471	-	-
Critical Hdwy	6.63	6.23	4.12
Critical Hdwy Stg 1	5.43	-	-
Critical Hdwy Stg 2	5.83	-	-
Follow-up Hdwy	3.519	3.319	2.218
Pot Cap-1 Maneuver	330	697	1141
Stage 1	716	-	-
Stage 2	595	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	330	697	1141
Mov Cap-2 Maneuver	330	-	-
Stage 1	716	-	-
Stage 2	595	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 697	1141	-
HCM Lane V/C Ratio	-	- 0.075	-	-
HCM Control Delay (s)	-	- 10.6	0	-
HCM Lane LOS	-	- B	A	-
HCM 95th %tile Q(veh)	-	- 0.2	0	-

**Intersection**

Int Delay, s/veh 3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	140	76	89	70	12	12
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	146	79	93	73	12	12

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	166	0	500
Stage 1	-	-	129
Stage 2	-	-	371
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1412	-	530
Stage 1	-	-	897
Stage 2	-	-	698
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1412	-	475
Mov Cap-2 Maneuver	-	-	475
Stage 1	-	-	897
Stage 2	-	-	626

Approach	EB	WB	SB
HCM Control Delay, s	5.1	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1412	-	-	-	475	921
HCM Lane V/C Ratio	0.103	-	-	-	0.026	0.014
HCM Control Delay (s)	7.8	-	-	-	12.8	9
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.3	-	-	-	0.1	0

**Intersection**

Int Delay, s/veh 3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	186	216	90	0	101	0	12	0	0	0	0	45
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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	194	225	94	0	105	0	12	0	0	0	0	47

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	319	0	0	788	764	272	764	811	105
Stage 1	-	-	-	-	-	-	659	659	-	105	105	-
Stage 2	-	-	-	-	-	-	129	105	-	659	706	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1486	-	-	1241	-	-	309	334	767	321	313	949
Stage 1	-	-	-	-	-	-	453	461	-	901	808	-
Stage 2	-	-	-	-	-	-	875	808	-	453	439	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1486	-	-	1241	-	-	264	290	767	289	272	949
Mov Cap-2 Maneuver	-	-	-	-	-	-	264	290	-	289	272	-
Stage 1	-	-	-	-	-	-	394	401	-	783	808	-
Stage 2	-	-	-	-	-	-	832	808	-	394	382	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0	19.3	9
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	264	1486	-	-	1241	-	-	949
HCM Lane V/C Ratio	0.047	0.13	-	-	-	-	-	0.049
HCM Control Delay (s)	19.3	7.8	-	-	0	-	-	9
HCM Lane LOS	C	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0.4	-	-	0	-	-	0.2

Intersection												
Intersection Delay, s/veh	9.2											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	53	1	5	0	3	3	79	0	1	196	4
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	56	1	5	0	3	3	84	0	1	209	4
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	9.8	8.8	9.2
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	90%	4%	100%	0%	0%
Vol Thru, %	0%	100%	94%	2%	4%	0%	100%	74%
Vol Right, %	0%	0%	6%	8%	93%	0%	0%	26%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1	131	69	59	85	92	136	92
LT Vol	1	0	0	53	3	92	0	0
Through Vol	0	131	65	1	3	0	136	68
RT Vol	0	0	4	5	79	0	0	24
Lane Flow Rate	1	139	74	63	90	98	145	98
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.002	0.205	0.108	0.109	0.131	0.154	0.208	0.136
Departure Headway (Hd)	5.812	5.308	5.268	6.274	5.231	5.68	5.176	4.993
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	613	673	677	568	681	629	690	714
Service Time	3.572	3.068	3.027	4.045	2.999	3.434	2.93	2.746
HCM Lane V/C Ratio	0.002	0.207	0.109	0.111	0.132	0.156	0.21	0.137
HCM Control Delay	8.6	9.4	8.7	9.8	8.8	9.5	9.3	8.5
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0	0.8	0.4	0.4	0.4	0.5	0.8	0.5

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	92	204	24
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	98	217	26
Number of Lanes	0	1	2	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.1
HCM LOS	A

**Lane**

HCM 2010 Signalized Intersection Summary  
 2: Mace Blvd & Cowell Blvd

Existing Plus MRIC  
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	81	89	40	21	33	105	22	288	18	138	259	103
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	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	86	95	0	22	35	0	23	306	0	147	276	0
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	344	0	49	248	0	50	776	0	192	1059	0
Arrive On Green	0.08	0.18	0.00	0.03	0.13	0.00	0.03	0.22	0.00	0.11	0.30	0.00
Sat Flow, veh/h	1774	1863	0	1774	1863	0	1774	3632	0	1774	3632	0
Grp Volume(v), veh/h	86	95	0	22	35	0	23	306	0	147	276	0
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	0	1774	1770	0	1774	1770	0
Q Serve(g_s), s	1.7	1.6	0.0	0.5	0.6	0.0	0.5	2.7	0.0	3.0	2.2	0.0
Cycle Q Clear(g_c), s	1.7	1.6	0.0	0.5	0.6	0.0	0.5	2.7	0.0	3.0	2.2	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	141	344	0	49	248	0	50	776	0	192	1059	0
V/C Ratio(X)	0.61	0.28	0.00	0.45	0.14	0.00	0.46	0.39	0.00	0.76	0.26	0.00
Avail Cap(c_a), veh/h	528	555	0	528	555	0	528	1916	0	528	1916	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)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.5	12.9	0.0	17.7	14.2	0.0	17.7	12.3	0.0	16.0	9.8	0.0
Incr Delay (d2), s/veh	4.2	0.4	0.0	6.5	0.3	0.0	6.3	0.3	0.0	6.2	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(-26165%),veh/ln	0.9	0.0	0.3	0.3	0.0	0.3	1.4	0.0	1.8	1.1	0.0	
LnGrp Delay(d),s/veh	20.7	13.4	0.0	24.2	14.4	0.0	24.0	12.7	0.0	22.2	10.0	0.0
LnGrp LOS	C	B		C	B		C	B		C	A	
Approach Vol, veh/h		181			57			329			423	
Approach Delay, s/veh		16.8			18.2			13.4			14.2	
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	8.0	13.1	5.0	10.8	5.1	16.0	6.9	8.9				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	20.0	11.0	11.0	11.0	11.0	20.0	11.0	11.0				
Max Q Clear Time (g_c+1), s	4.7	2.5	3.6	2.5	4.2	3.7	2.6					
Green Ext Time (p_c), s	0.2	3.1	0.0	0.3	0.0	3.2	0.1	0.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				14.7								
HCM 2010 LOS				B								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary  
7: 2nd St & Faraday Ave

Existing Plus MRIC  
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	169	7	81	15	6	24	102	612	7	55	326	142
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		0.97	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	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	180	7	86	16	6	26	109	651	7	59	347	151
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	21	257	35	18	78	145	809	9	97	769	637
Arrive On Green	0.14	0.18	0.18	0.02	0.06	0.06	0.08	0.44	0.44	0.05	0.41	0.41
Sat Flow, veh/h	1774	117	1439	1774	303	1314	1774	1839	20	1774	1863	1544
Grp Volume(v), veh/h	180	0	93	16	0	32	109	0	658	59	347	151
Grp Sat Flow(s),veh/h/ln	1774	0	1556	1774	0	1618	1774	0	1859	1774	1863	1544
Q Serve(g_s), s	5.2	0.0	2.8	0.5	0.0	1.0	3.2	0.0	16.5	1.7	7.2	3.4
Cycle Q Clear(g_c), s	5.2	0.0	2.8	0.5	0.0	1.0	3.2	0.0	16.5	1.7	7.2	3.4
Prop In Lane	1.00		0.92	1.00		0.81	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	247	0	278	35	0	96	145	0	818	97	769	637
V/C Ratio(X)	0.73	0.00	0.33	0.46	0.00	0.33	0.75	0.00	0.80	0.61	0.45	0.24
Avail Cap(c_a), veh/h	363	0	318	363	0	331	363	0	882	363	884	733
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	1.00	1.00
Uniform Delay (d), s/veh	22.2	0.0	19.3	26.1	0.0	24.2	24.1	0.0	13.0	24.9	11.4	10.3
Incr Delay (d2), s/veh	8.5	0.0	1.5	18.5	0.0	4.3	15.3	0.0	6.2	12.6	0.9	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(-26165%),veh/ln	0.0	1.3	0.4	0.0	0.6	2.2	0.0	9.8	1.2	3.9	1.5	
LnGrp Delay(d),s/veh	30.7	0.0	20.8	44.6	0.0	28.5	39.5	0.0	19.2	37.4	12.3	10.7
LnGrp LOS	C		C	D		C	D		B	D	B	B
Approach Vol, veh/h		273			48			767			557	
Approach Delay, s/veh		27.3			33.9			22.1			14.5	
Approach LOS		C			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	6.9	28.1	5.1	13.6	8.4	26.7	11.5	7.2				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	15.0	25.5	11.0	11.0	11.0	25.5	11.0	11.0				
Max Q Clear Time (g_c+1), s	13.5	18.5	2.5	4.8	5.2	9.2	7.2	3.0				
Green Ext Time (p_c), s	0.1	5.2	0.0	0.5	0.2	10.2	0.3	0.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			20.7									
HCM 2010 LOS			C									



**Intersection**

Int Delay, s/veh 5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	46	477	457	145	131	43
Conflicting Peds, #/hr	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	150	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	507	486	154	139	46

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	486	0	1091
Stage 1	-	-	486
Stage 2	-	-	605
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1077	-	581
Stage 1	-	-	618
Stage 2	-	-	545
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1077	-	581
Mov Cap-2 Maneuver	-	-	227
Stage 1	-	-	618
Stage 2	-	-	520

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	35.4
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1077	-	-	-	227	581
HCM Lane V/C Ratio	0.045	-	-	-	0.614	0.079
HCM Control Delay (s)	8.5	-	-	-	43.2	11.7
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.1	-	-	-	3.6	0.3

**Intersection**

Int Delay, s/veh 2.7

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	1	32	422	391	145	108	40
Conflicting Peds, #/hr	0	0	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	125	-	-	125	0	125
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	1	34	449	416	154	115	43

Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	459	416	0	-	0	933	417
Stage 1	-	-	-	-	-	416	-
Stage 2	-	-	-	-	-	517	-
Critical Hdwy	-	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	1143	-	-	-	295	636
Stage 1	-	-	-	-	-	666	-
Stage 2	-	-	-	-	-	598	-
Platoon blocked, %	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	~ -34	~ -34	-	-	-	295	636
Mov Cap-2 Maneuver	-	-	-	-	-	295	-
Stage 1	-	-	-	-	-	666	-
Stage 2	-	-	-	-	-	598	-

Approach	EB	WB	SB
HCM Control Delay, s		0	21.1
HCM LOS			C







Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	+	-	-	-	295	636
HCM Lane V/C Ratio	-	-	-	-	0.389	0.067
HCM Control Delay (s)	-	-	-	-	24.8	11.1
HCM Lane LOS	-	-	-	-	C	B
HCM 95th %tile Q(veh)	-	-	-	-	1.8	0.2

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

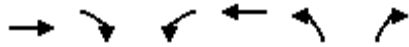
HCM 2010 Signalized Intersection Summary  
 10: Harper JR HS Access & Covell Blvd

Existing Plus MRIC  
 PM Peak Hour

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑	↑	↑		
Volume (veh/h)	366	39	31	949	49	8		
Number	2	12	1	6	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	1863	1863	1863	1827	1817	1900		
Adj Flow Rate, veh/h	389	41	33	1010	52	9		
Adj No. of Lanes	2	1	1	1	0	0		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	4	0	0		
Cap, veh/h	2163	967	81	1379	71	12		
Arrive On Green	0.61	0.61	0.05	0.75	0.05	0.05		
Sat Flow, veh/h	3632	1582	1774	1827	1428	247		
Grp Volume(v), veh/h	389	41	33	1010	62	0		
Grp Sat Flow(s),veh/h/ln	1770	1582	1774	1827	1702	0		
Q Serve(g_s), s	2.0	0.4	0.7	12.4	1.5	0.0		
Cycle Q Clear(g_c), s	2.0	0.4	0.7	12.4	1.5	0.0		
Prop In Lane		1.00	1.00		0.84	0.15		
Lane Grp Cap(c), veh/h	2163	967	81	1379	84	0		
V/C Ratio(X)	0.18	0.04	0.41	0.73	0.74	0.00		
Avail Cap(c_a), veh/h	2683	1199	694	1385	1082	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	3.5	3.2	19.0	2.7	19.2	0.0		
Incr Delay (d2), s/veh	0.0	0.0	6.8	2.0	11.8	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	0.9	0.2	0.5	6.7	0.9	0.0		
LnGrp Delay(d),s/veh	3.5	3.2	25.8	4.8	30.9	0.0		
LnGrp LOS	A	A	C	A	C			
Approach Vol, veh/h	430			1043	62			
Approach Delay, s/veh	3.5			5.4	30.9			
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	5.9	29.0				34.9		6.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	31.0				31.0		26.0
Max Q Clear Time (g_c+I1), s	2.7	4.0				14.4		3.5
Green Ext Time (p_c), s	0.1	12.3				9.3		0.1
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			5.9					
HCM 2010 LOS			A					
<b>Notes</b>								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary  
 11: Alhambra Dr & Covell Blvd

Existing Plus MRIC  
 PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑	↑	↑		
Volume (veh/h)	387	116	50	948	130	18		
Number	2	12	1	6	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	1863	1863	1520	1845	1863	1900		
Adj Flow Rate, veh/h	412	0	53	1009	138	0		
Adj No. of Lanes	2	1	1	1	0	0		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	25	3	0	0		
Cap, veh/h	1495	669	84	1106	180	0		
Arrive On Green	0.42	0.00	0.06	0.60	0.10	0.00		
Sat Flow, veh/h	3632	1583	1448	1845	1762	0		
Grp Volume(v), veh/h	412	0	53	1009	139	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1448	1845	1775	0		
Q Serve(g_s), s	2.6	0.0	1.2	16.2	2.6	0.0		
Cycle Q Clear(g_c), s	2.6	0.0	1.2	16.2	2.6	0.0		
Prop In Lane		1.00	1.00		0.99	0.00		
Lane Grp Cap(c), veh/h	1495	669	84	1106	181	0		
V/C Ratio(X)	0.28	0.00	0.63	0.91	0.77	0.00		
Avail Cap(c_a), veh/h	2057	920	345	1106	555	0		
HCM Platoon Ratio	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	0.00		
Uniform Delay (d), s/veh	6.3	0.0	15.4	5.9	14.7	0.0		
Incr Delay (d2), s/veh	0.2	0.0	7.5	11.6	6.6	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.6	11.4	1.6	0.0		
LnGrp Delay(d),s/veh	6.5	0.0	23.0	17.5	21.3	0.0		
LnGrp LOS	A		C	B	C			
Approach Vol, veh/h	412			1062	139			
Approach Delay, s/veh	6.5			17.8	21.3			
Approach LOS	A			B	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	5.9	19.7		7.9		25.6		
Change Period (Y+Rc), s	4.0	5.5		4.5		5.5		
Max Green Setting (Gmax), s	4.0	19.5		10.5		19.5		
Max Q Clear Time (g_c+1), s	4.6	4.6		4.6		18.2		
Green Ext Time (p_c), s	0.0	9.6		0.2		1.2		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			15.2					
HCM 2010 LOS			B					
<b>Notes</b>								
User approved pedestrian interval to be less than phase max green.								

Intersection													
Int Delay, s/veh	10.9												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	490	40	40	1038	0	127	1	11	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	9	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	3	10	4	2	2	2	4	2	2	2
Mvmt Flow	1	521	43	43	1104	0	135	1	12	2	0	1



















Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1104	0	0	564	0	0	1182	1734	291	1452	1755	552
Stage 1	-	-	-	-	-	-	545	545	-	1189	1189	-
Stage 2	-	-	-	-	-	-	637	1189	-	263	566	-
Critical Hdwy	4.14	-	-	4.3	-	-	7.54	6.54	6.98	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.3	-	-	3.52	4.02	3.34	3.52	4.02	3.32
Pot Cap-1 Maneuver	628	-	-	950	-	-	145	87	700	92	84	477
Stage 1	-	-	-	-	-	-	490	517	-	199	260	-
Stage 2	-	-	-	-	-	-	432	260	-	719	506	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	628	-	-	943	-	-	139	83	695	86	80	477
Mov Cap-2 Maneuver	-	-	-	-	-	-	139	83	-	86	80	-
Stage 1	-	-	-	-	-	-	489	516	-	199	248	-
Stage 2	-	-	-	-	-	-	411	248	-	699	505	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	133.7	36.4
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	148	628	-	-	943	-	-	118
HCM Lane V/C Ratio	0.999	0.002	-	-	0.045	-	-	0.027
HCM Control Delay (s)	133.7	10.7	-	-	9	-	-	36.4
HCM Lane LOS	F	B	-	-	A	-	-	E
HCM 95th %tile Q(veh)	7.4	0	-	-	0.1	-	-	0.1

HCM 2010 Signalized Intersection Summary  
 13: Bike Dummy/Wright Blvd & Covell Blvd

Existing Plus MRIC  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	75	443	0	0	1016	150	0	0	0	88	0	75
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	1810	1863	0	0	1845	1900	0	1863	0	1863	0	1863
Adj Flow Rate, veh/h	80	471	0	0	1081	0	0	0	0	94	0	0
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	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, %	5	2	0	0	3	3	0	2	0	2	0	2
Cap, veh/h	126	2373	0	0	1751	0	0	5	0	327	0	0
Arrive On Green	0.07	0.67	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.09	0.00	0.00
Sat Flow, veh/h	1723	3632	0	0	3689	0	0	-74510	0	1774	94	
Grp Volume(v), veh/h	80	471	0	0	1081	0	0	0	0	94	0.0	
Grp Sat Flow(s),veh/h/ln	1723	1770	0	0	1752	0	0	1863	0	1774	A	
Q Serve(g_s), s	1.8	2.1	0.0	0.0	9.1	0.0	0.0	0.0	0.0	3.3		
Cycle Q Clear(g_c), s	1.8	2.1	0.0	0.0	9.1	0.0	0.0	0.0	0.0	3.3		
Prop In Lane	1.00		0.00	0.00		0.00	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	126	2373	0	0	1751	0	0	5	0	0		
V/C Ratio(X)	0.64	0.20	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00		
Avail Cap(c_a), veh/h	253	2373	0	0	2055	0	0	501	0	0		
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	1.00	0.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	18.4	2.6	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	5.2	0.1	0.0	0.0	0.8	0.0	0.0	0.0	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		
%ile BackOfQ(-26165%),veh/ln	1.0	1.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0		
LnGrp Delay(d),s/veh	23.7	2.7	0.0	0.0	8.2	0.0	0.0	0.0	0.0	0.0		
LnGrp LOS	C	A			A							
Approach Vol, veh/h		551			1081			0				
Approach Delay, s/veh		5.7			8.2			0.0				
Approach LOS		A			A							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		33.4			7.0	26.5	7.5	0.0				
Change Period (Y+Rc), s		6.0			4.0	6.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0			6.0	24.0	6.0	11.0				
Max Q Clear Time (g_c+I1), s		4.1			3.8	11.1	5.3	0.0				
Green Ext Time (p_c), s		15.6			0.0	9.3	0.0	0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				7.0								
HCM 2010 LOS				A								

**Intersection**

Int Delay, s/veh 1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	501	34	24	1067	50	17
Conflicting Peds, #/hr	0	4	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	533	36	26	1135	53	18

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1170
Stage 1	-	-	551
Stage 2	-	-	619
Critical Hdwy	-	4.14	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	-	2.22	3.52
Pot Cap-1 Maneuver	-	999	186
Stage 1	-	-	541
Stage 2	-	-	499
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	999	181
Mov Cap-2 Maneuver	-	-	181
Stage 1	-	-	541
Stage 2	-	-	484

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	28.5
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	223	-	-	999	-
HCM Lane V/C Ratio	0.32	-	-	0.026	-
HCM Control Delay (s)	28.5	-	-	8.7	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	1.3	-	-	0.1	-

Intersection														
Int Delay, s/veh	0.5													

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	14	526	18	16	1094	7	7	0	7	2	0	5
Conflicting Peds, #/hr	0	0	0	1	0	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	Free	-	-	None	-	-	Stop
Storage Length	-	125	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	15	560	19	17	1164	7	7	0	7	2	0	5

Major/Minor	Major1				Major2			Minor1			Minor2		
Conflicting Flow All	855	1164	0	0	579	0	0	1226	1808	289	1518	1817	583
Stage 1	-	-	-	-	-	-	-	610	610	-	1198	1198	-
Stage 2	-	-	-	-	-	-	-	616	1198	-	320	619	-
Critical Hdwy	6.44	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	411	596	-	-	991	-	0	135	78	708	82	77	456
Stage 1	-	-	-	-	-	-	0	448	483	-	197	257	-
Stage 2	-	-	-	-	-	-	0	445	257	-	666	478	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	531	531	-	-	991	-	-	132	77	708	80	76	456
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	132	77	-	80	76	-
Stage 1	-	-	-	-	-	-	-	448	483	-	197	253	-
Stage 2	-	-	-	-	-	-	-	432	253	-	659	478	-













Approach	EB				WB			NB			SB		
HCM Control Delay, s	0.4				0.1			22.3			18.2		
HCM LOS								C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	223	531	-	-	991	-	280
HCM Lane V/C Ratio	0.067	0.038	-	-	0.017	-	0.027
HCM Control Delay (s)	22.3	12.1	-	-	8.7	-	18.2
HCM Lane LOS	C	B	-	-	A	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	0.1



HCM 2010 Signalized Intersection Summary  
 16: Birch Ln/Bike lane & Covell Blvd

Existing Plus MRIC  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↖		↗		↑	
Volume (veh/h)	0	548	26	25	1040	0	24	0	9	0	0	0
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		0.96	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	0	1845	1863	1863	1863	0	1863	0	1863	0	1863	0
Adj Flow Rate, veh/h	0	583	28	27	1106	0	26	0	10	0	0	0
Adj No. of Lanes	0	2	1	1	2	0	1	0	1	0	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, %	0	3	2	2	2	0	2	0	2	0	2	0
Cap, veh/h	0	1981	861	59	2570	0	34	0	0	0	6	0
Arrive On Green	0.00	0.57	0.57	0.03	0.73	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3597	1523	1774	3632	0	1774	26		0	-74510	0
Grp Volume(v), veh/h	0	583	28	27	1106	0	26	43.3		0	0	0
Grp Sat Flow(s),veh/h/ln	0	1752	1523	1774	1770	0	1774	D		0	1863	0
Q Serve(g_s), s	0.0	2.7	0.3	0.5	3.9	0.0	0.5			0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	2.7	0.3	0.5	3.9	0.0	0.5			0.0	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00	1.00			0.00		0.00
Lane Grp Cap(c), veh/h	0	1981	861	59	2570	0	34			0	6	0
V/C Ratio(X)	0.00	0.29	0.03	0.46	0.43	0.00	0.76			0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	3123	1357	903	3154	0	1468			0	1245	0
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)	0.00	1.00	1.00	1.00	1.00	0.00	1.00			0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	3.6	3.0	14.9	1.7	0.0	15.3			0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	5.4	0.1	0.0	27.9			0.0	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
%ile BackOfQ(-26165%),veh/ln	0.0	1.3	0.1	0.3	1.9	0.0	0.5			0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	3.6	3.0	20.3	1.8	0.0	43.3			0.0	0.0	0.0
LnGrp LOS		A	A	C	A		D					
Approach Vol, veh/h		611			1133						0	
Approach Delay, s/veh		3.6			2.3						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	5.0	21.8	4.6	0.0		26.8						
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0		4.0						
Max Green Setting (Gmax), s	16.0	28.0	26.0	21.0		28.0						
Max Q Clear Time (g_c+I1), s	2.5	4.7	2.5	0.0		5.9						
Green Ext Time (p_c), s	0.0	13.0	0.0	0.0		12.6						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			3.3									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary  
 17: Pole Line Rd & Covell Blvd

Existing Plus MRIC  
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	309	448	197	110	673	281	137	325	4	122	185	243
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		0.95	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	1863	1852	1900	1827	1863	1900	1845	1712	1863	1845	1827	1863
Adj Flow Rate, veh/h	329	477	0	117	716	0	146	346	4	130	197	259
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	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, %	2	2	2	4	2	2	3	11	2	3	4	2
Cap, veh/h	377	1402	0	151	964	0	184	338	298	164	341	287
Arrive On Green	0.21	0.40	0.00	0.09	0.27	0.00	0.10	0.20	0.20	0.09	0.19	0.19
Sat Flow, veh/h	1774	3611	0	1740	3632	0	1757	1712	1508	1757	1827	1538
Grp Volume(v), veh/h	329	477	0	117	716	0	146	346	4	130	197	259
Grp Sat Flow(s),veh/h/ln	1774	1759	0	1740	1770	0	1757	1712	1508	1757	1827	1538
Q Serve(g_s), s	14.4	7.6	0.0	5.3	14.8	0.0	6.5	15.9	0.2	5.8	7.9	13.2
Cycle Q Clear(g_c), s	14.4	7.6	0.0	5.3	14.8	0.0	6.5	15.9	0.2	5.8	7.9	13.2
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	377	1402	0	151	964	0	184	338	298	164	341	287
V/C Ratio(X)	0.87	0.34	0.00	0.78	0.74	0.00	0.80	1.02	0.01	0.79	0.58	0.90
Avail Cap(c_a), veh/h	574	1402	0	454	1321	0	350	338	298	262	341	287
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	16.8	0.0	36.0	26.7	0.0	35.2	32.2	25.9	35.7	29.8	32.0
Incr Delay (d2), s/veh	9.3	0.1	0.0	8.3	1.5	0.0	7.6	54.7	0.0	8.3	2.4	29.5
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(-26165%),veh/ln	3.7	0.0	2.9	7.5	0.0	3.6	12.6	0.1	3.2	4.2	8.0	
LnGrp Delay(d),s/veh	39.8	17.0	0.0	44.3	28.2	0.0	42.8	87.0	26.0	44.0	32.2	61.4
LnGrp LOS	D	B		D	C		D	F	C	D	C	E
Approach Vol, veh/h		806			833			496			586	
Approach Delay, s/veh		26.3			30.4			73.5			47.8	
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	31.1	26.9	12.4	20.0	11.0	37.0	11.5	20.9				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	20.0	30.0	16.0	15.0	21.0	30.0	12.0	15.0				
Max Q Clear Time (g_c+10), s	10.4	16.8	8.5	15.2	7.3	9.6	7.8	17.9				
Green Ext Time (p_c), s	0.7	5.1	0.2	0.0	0.2	8.1	0.1	0.0				

Intersection Summary

HCM 2010 Ctrl Delay	40.8
HCM 2010 LOS	D

Notes

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

**Intersection**

Int Delay, s/veh 2.5

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Vol, veh/h	915	69	1	105	985	38	126
Conflicting Peds, #/hr	0	5	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	-	None	-	Yield
Storage Length	-	-	-	200	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	5	2
Mvmt Flow	973	73	1	112	1048	40	134



















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1107
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.44	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	2.52	2.22
Pot Cap-1 Maneuver	-	283	704
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	689	689
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	26.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	337	-	-	689	-
HCM Lane V/C Ratio	0.518	-	-	0.164	-
HCM Control Delay (s)	26.6	-	-	11.2	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	2.8	-	-	0.6	-

HCM 2010 Signalized Intersection Summary  
 19: J St & Covell Blvd

Existing Plus MRIC  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	906	129	54	969	0	108	1	78	0	1	0
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	1863	1856	1900	1743	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	0	964	0	57	1031	0	115	1	0	0	1	0
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	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, %	2	2	2	9	2	2	2	2	2	2	2	2
Cap, veh/h	4	1709	0	75	2190	0	162	1	0	0	4	0
Arrive On Green	0.00	0.48	0.00	0.05	0.62	0.00	0.09	0.09	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1774	3619	0	1660	3632	0	1759	15	0	0	1863	0
Grp Volume(v), veh/h	0	964	0	57	1031	0	116	0	0	0	1	0
Grp Sat Flow(s),veh/h/ln	1774	1763	0	1660	1770	0	1775	0	0	0	1863	0
Q Serve(g_s), s	0.0	8.7	0.0	1.5	7.1	0.0	2.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	8.7	0.0	1.5	7.1	0.0	2.9	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	0.99		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	4	1709	0	75	2190	0	163	0	0	0	4	0
V/C Ratio(X)	0.00	0.56	0.00	0.76	0.47	0.00	0.71	0.00	0.00	0.00	0.24	0.00
Avail Cap(c_a), veh/h	157	2737	0	221	2747	0	1102	0	0	0	867	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	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	8.2	0.0	21.3	4.6	0.0	19.9	0.0	0.0	0.0	22.5	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	5.7	0.1	0.0	2.1	0.0	0.0	0.0	10.8	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(-26165%),veh/ln	0.0	4.2	0.0	0.8	3.3	0.0	1.5	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	8.3	0.0	27.0	4.7	0.0	22.0	0.0	0.0	0.0	33.3	0.0
LnGrp LOS		A		C	A		C				C	
Approach Vol, veh/h		964			1088			116				1
Approach Delay, s/veh		8.3			5.9			22.0				33.3
Approach LOS		A			A			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	6.0	26.9		4.0	0.0	32.9		8.1				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	6.0	35.0		21.0	4.0	35.0		28.0				
Max Q Clear Time (g_c+I1), s	3.5	10.7		2.0	0.0	9.1		4.9				
Green Ext Time (p_c), s	0.0	11.1		0.0	0.0	11.5		0.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				7.8								
HCM 2010 LOS				A								

HCM 2010 Signalized Intersection Summary  
20: F St & Covell Blvd

Existing Plus MRIC  
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	43	766	171	160	755	161	98	166	171	98	88	49
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	1863	1863	1900	1845	1863	1900	1845	1854	1900	1863	1837	1900
Adj Flow Rate, veh/h	46	815	0	170	803	0	104	177	0	104	94	0
Adj No. of Lanes	1	2	0	2	2	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, %	2	2	2	3	2	2	3	2	2	2	2	2
Cap, veh/h	80	1329	0	280	1459	0	138	306	0	140	304	0
Arrive On Green	0.05	0.38	0.00	0.08	0.41	0.00	0.08	0.17	0.00	0.08	0.17	0.00
Sat Flow, veh/h	1774	3632	0	3408	3632	0	1757	1854	0	1774	1837	0
Grp Volume(v), veh/h	46	815	0	170	803	0	104	177	0	104	94	0
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1704	1770	0	1757	1854	0	1774	1837	0
Q Serve(g_s), s	1.4	10.7	0.0	2.7	9.8	0.0	3.3	5.0	0.0	3.3	2.6	0.0
Cycle Q Clear(g_c), s	1.4	10.7	0.0	2.7	9.8	0.0	3.3	5.0	0.0	3.3	2.6	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	80	1329	0	280	1459	0	138	306	0	140	304	0
V/C Ratio(X)	0.57	0.61	0.00	0.61	0.55	0.00	0.75	0.58	0.00	0.74	0.31	0.00
Avail Cap(c_a), veh/h	809	2483	0	1554	2483	0	801	845	0	809	838	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)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.7	14.4	0.0	25.3	12.7	0.0	25.7	22.0	0.0	25.7	20.9	0.0
Incr Delay (d2), s/veh	2.4	0.2	0.0	0.8	0.1	0.0	8.0	1.7	0.0	8.9	0.7	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(-26165%),veh/ln	5.2	0.0	1.3	4.8	0.0	1.9	2.7	0.0	1.9	1.4	0.0	
LnGrp Delay(d),s/veh	29.0	14.6	0.0	26.1	12.9	0.0	33.8	23.7	0.0	34.6	21.6	0.0
LnGrp LOS	C	B		C	B		C	C		C	C	
Approach Vol, veh/h		861			973			281			198	
Approach Delay, s/veh		15.4			15.2			27.4			28.4	
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	8.7	26.4	8.5	13.4	6.6	28.5	8.5	13.4				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	20.0	40.0	26.0	26.0	26.0	40.0	26.0	26.0				
Max Q Clear Time (g_c+14), s	11.7	12.7	5.3	4.6	3.4	11.8	5.3	7.0				
Green Ext Time (p_c), s	0.3	8.8	0.2	1.6	0.0	8.8	0.3	1.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				17.9								
HCM 2010 LOS				B								

Intersection																
Intersection Delay, s/veh11.4																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	204	87	71	0	45	92	8	0	36	88	29	0	9	89	105
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, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	217	93	76	0	48	98	9	0	38	94	31	0	10	95	112
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	11.9	10.3	10.6	11.7
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	75%	0%	55%	0%	92%	0%	46%
Vol Right, %	0%	25%	0%	45%	0%	8%	0%	54%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	117	204	158	45	100	9	194
LT Vol	36	0	204	0	45	0	9	0
Through Vol	0	88	0	87	0	92	0	89
RT Vol	0	29	0	71	0	8	0	105
Lane Flow Rate	38	124	217	168	48	106	10	206
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.074	0.216	0.388	0.262	0.09	0.184	0.018	0.341
Departure Headway (Hd)	6.927	6.243	6.433	5.609	6.776	6.211	6.847	5.955
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	517	574	560	640	528	577	522	603
Service Time	4.677	3.992	4.172	3.348	4.525	3.961	4.594	3.703
HCM Lane V/C Ratio	0.074	0.216	0.388	0.263	0.091	0.184	0.019	0.342
HCM Control Delay	10.2	10.7	13.2	10.3	10.2	10.4	9.7	11.8
HCM Lane LOS	B	B	B	B	B	B	A	B
HCM 95th-tile Q	0.2	0.8	1.8	1	0.3	0.7	0.1	1.5

Intersection													
Int Delay, s/veh	3.4												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	81	3	67	3	0	2	32	291	2	4	203	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	175	-	-	-	150	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	86	3	71	3	0	2	34	310	2	4	216	40

























Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	625	625	237	661	644	311	256	0	0	312	0	0
Stage 1	245	245	-	379	379	-	-	-	-	-	-	-
Stage 2	380	380	-	282	265	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	397	401	802	376	391	729	1309	-	-	1248	-	-
Stage 1	759	703	-	643	615	-	-	-	-	-	-	-
Stage 2	642	614	-	725	689	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	387	389	801	333	380	729	1308	-	-	1248	-	-
Mov Cap-2 Maneuver	387	389	-	333	380	-	-	-	-	-	-	-
Stage 1	739	701	-	626	599	-	-	-	-	-	-	-
Stage 2	623	598	-	655	687	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.8	13.6	0.8	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1308	-	-	387	766	425	1248	-	-
HCM Lane V/C Ratio	0.026	-	-	0.223	0.097	0.013	0.003	-	-
HCM Control Delay (s)	7.8	-	-	16.9	10.2	13.6	7.9	-	-
HCM Lane LOS	A	-	-	C	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.3	0	0	-	-

HCM 2010 Signalized Intersection Summary  
 34: Cowell Blvd & Pole Line Rd/Lillard Dr

Existing Plus MRIC  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	215	305	90	158	182	7	218	134	197	3	85	80
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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	229	324	0	168	194	0	232	143	0	3	90	0
Adj No. of Lanes	1	1	1	1	2	1	1	1	1	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	290	456	388	218	722	323	286	509	433	7	216	184
Arrive On Green	0.16	0.24	0.00	0.12	0.20	0.00	0.16	0.27	0.00	0.00	0.12	0.00
Sat Flow, veh/h	1774	1863	1583	1774	3539	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	229	324	0	168	194	0	232	143	0	3	90	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1770	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	5.6	7.2	0.0	4.1	2.1	0.0	5.7	2.7	0.0	0.1	2.0	0.0
Cycle Q Clear(g_c), s	5.6	7.2	0.0	4.1	2.1	0.0	5.7	2.7	0.0	0.1	2.0	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	290	456	388	218	722	323	286	509	433	7	216	184
V/C Ratio(X)	0.79	0.71	0.00	0.77	0.27	0.00	0.81	0.28	0.00	0.41	0.42	0.00
Avail Cap(c_a), veh/h	630	661	562	630	942	422	315	579	492	433	579	492
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.1	15.6	0.0	19.2	15.1	0.0	18.2	12.9	0.0	22.4	18.5	0.0
Incr Delay (d2), s/veh	1.8	0.8	0.0	2.2	0.1	0.0	12.1	0.1	0.0	13.4	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(-26165%),veh/ln	2.9	3.8	0.0	2.1	1.0	0.0	3.7	1.4	0.0	0.1	1.1	0.0
LnGrp Delay(d),s/veh	19.9	16.3	0.0	21.4	15.2	0.0	30.3	13.0	0.0	35.8	19.0	0.0
LnGrp LOS	B	B		C	B		C	B		D	B	
Approach Vol, veh/h		553			362			375			93	
Approach Delay, s/veh		17.8			18.0			23.7			19.5	
Approach LOS		B			B			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	4.2	16.3	9.5	15.0	11.3	9.2	11.4	13.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	14.0	16.0	16.0	8.0	14.0	16.0	12.0				
Max Q Clear Time (g_c+I1), s	2.1	4.7	6.1	9.2	7.7	4.0	7.6	4.1				
Green Ext Time (p_c), s	0.0	0.6	0.2	1.3	0.0	0.6	0.2	1.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			19.6									
HCM 2010 LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												



HCM 2010 Signalized Intersection Summary  
 35: Valdora St & Cowell Blvd

Existing Plus MRIC  
 PM Peak Hour



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Volume (veh/h)	2	98	492	84	20	276	39	31	15	57	29	16	64
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		0.92	1.00		0.97	1.00		0.96	1.00		0.58
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		1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h		104	523	89	21	294	41	33	16	61	31	17	68
Adj No. of Lanes		1	1	1	1	1	1	1	1	1	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, %		2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h		149	776	609	46	668	550	68	238	195	64	26	103
Arrive On Green		0.08	0.42	0.42	0.03	0.36	0.36	0.04	0.13	0.13	0.04	0.13	0.13
Sat Flow, veh/h		1774	1863	1462	1774	1863	1533	1774	1863	1524	1774	205	821
Grp Volume(v), veh/h		104	523	89	21	294	41	33	16	61	31	0	85
Grp Sat Flow(s),veh/h/ln		1774	1863	1462	1774	1863	1533	1774	1863	1524	1774	0	1027
Q Serve(g_s), s		2.4	9.5	1.6	0.5	5.0	0.7	0.8	0.3	1.5	0.7	0.0	3.3
Cycle Q Clear(g_c), s		2.4	9.5	1.6	0.5	5.0	0.7	0.8	0.3	1.5	0.7	0.0	3.3
Prop In Lane		1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.80
Lane Grp Cap(c), veh/h		149	776	609	46	668	550	68	238	195	64	0	129
V/C Ratio(X)		0.70	0.67	0.15	0.46	0.44	0.07	0.49	0.07	0.31	0.48	0.00	0.66
Avail Cap(c_a), veh/h		254	1356	1065	254	1356	1116	254	267	218	254	0	147
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	0.00	1.00
Uniform Delay (d), s/veh		18.7	9.9	7.6	20.1	10.2	8.9	19.7	16.1	16.6	19.8	0.0	17.5
Incr Delay (d2), s/veh		2.2	0.4	0.0	2.6	0.2	0.0	2.0	0.0	0.3	2.1	0.0	5.8
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(-26165%),veh/ln		1.2	4.9	0.6	0.3	2.6	0.3	0.4	0.2	0.7	0.4	0.0	1.1
LnGrp Delay(d),s/veh		20.9	10.3	7.6	22.7	10.4	8.9	21.8	16.1	16.9	21.9	0.0	23.2
LnGrp LOS		C	B	A	C	B	A	C	B	B	C		C
Approach Vol, veh/h			716			356			110			116	
Approach Delay, s/veh			11.5			11.0			18.3			22.9	
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	5.1	21.9	5.6	9.3	7.5	19.5	5.5	9.3					
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0					
Max Green Setting (Gmax), s	30.5	30.5	6.0	6.0	6.0	30.5	6.0	6.0					
Max Q Clear Time (g_c+1), s	11.5	11.5	2.8	5.3	4.4	7.0	2.7	3.5					
Green Ext Time (p_c), s	0.0	0.0	3.8	0.0	0.0	4.0	0.0	0.1					

Intersection Summary

HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

Notes

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

HCM 2010 Signalized Intersection Summary  
36: Drew Ave & Cowell Blvd

Existing Plus MRIC  
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	76	578	61	29	407	0	57	3	23	102	4	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		0.95	1.00		1.00	1.00		0.92	1.00		0.68
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	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	81	615	65	31	433	0	61	3	24	109	4	96
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	796	84	61	844	718	97	17	136	140	236	136
Arrive On Green	0.06	0.48	0.48	0.03	0.45	0.00	0.05	0.10	0.10	0.08	0.13	0.13
Sat Flow, veh/h	1774	1648	174	1774	1863	1583	1774	166	1329	1774	1863	1074
Grp Volume(v), veh/h	81	0	680	31	433	0	61	0	27	109	4	96
Grp Sat Flow(s),veh/h/ln	1774	0	1822	1774	1863	1583	1774	0	1496	1774	1863	1074
Q Serve(g_s), s	2.5	0.0	17.3	1.0	9.3	0.0	1.9	0.0	0.9	3.4	0.1	4.8
Cycle Q Clear(g_c), s	2.5	0.0	17.3	1.0	9.3	0.0	1.9	0.0	0.9	3.4	0.1	4.8
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.89	1.00		1.00
Lane Grp Cap(c), veh/h	113	0	880	61	844	718	97	0	153	140	236	136
V/C Ratio(X)	0.72	0.00	0.77	0.51	0.51	0.00	0.63	0.00	0.18	0.78	0.02	0.71
Avail Cap(c_a), veh/h	346	0	970	252	992	843	252	0	212	252	265	152
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	0.0	12.0	26.7	11.0	0.0	26.1	0.0	23.1	25.4	21.5	23.6
Incr Delay (d2), s/veh	8.1	0.0	4.5	6.6	1.0	0.0	6.6	0.0	1.2	8.8	0.0	12.2
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(-26165%),veh/ln	0.0	0.0	9.6	0.6	4.9	0.0	1.1	0.0	0.4	2.0	0.1	1.9
LnGrp Delay(d),s/veh	34.0	0.0	16.5	33.3	12.0	0.0	32.6	0.0	24.3	34.3	21.6	35.8
LnGrp LOS	C		B	C	B		C		C	C	C	D
Approach Vol, veh/h		761			464			88			209	
Approach Delay, s/veh		18.4			13.4			30.1			34.7	
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	5.9	32.2	7.1	11.1	7.6	30.5	8.5	9.7				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	30.0	30.0	8.0	8.0	11.0	30.0	8.0	8.0				
Max Q Clear Time (g_c+1), s	19.3	19.3	3.9	6.8	4.5	11.3	5.4	2.9				
Green Ext Time (p_c), s	0.0	7.9	0.0	0.1	0.1	12.3	0.1	0.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			19.8									
HCM 2010 LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary  
37: Research Park Dr & Cowell Blvd

Existing Plus MRIC  
PM Peak Hour



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↑	↔	↔	↔	↔	↔	↔		↔	↔	
Volume (veh/h)	34	152	724	51	29	570	52	160	19	38	10	8	162
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		0.91	1.00		0.93
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		1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h		162	770	54	31	606	0	170	20	40	11	9	172
Adj No. of Lanes		1	1	1	1	2	0	2	2	0	1	2	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, %		2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h		190	1076	895	67	1798	0	235	407	330	23	309	258
Arrive On Green		0.21	1.00	1.00	0.04	0.51	0.00	0.07	0.23	0.23	0.01	0.17	0.17
Sat Flow, veh/h		1774	1863	1549	1774	3632	0	3442	1770	1434	1774	1770	1476
Grp Volume(v), veh/h		162	770	54	31	606	0	170	20	40	11	9	172
Grp Sat Flow(s),veh/h/ln		1774	1863	1549	1774	1770	0	1721	1770	1434	1774	1770	1476
Q Serve(g_s), s		10.5	0.0	0.0	2.1	12.2	0.0	5.8	1.1	2.7	0.7	0.5	13.1
Cycle Q Clear(g_c), s		10.5	0.0	0.0	2.1	12.2	0.0	5.8	1.1	2.7	0.7	0.5	13.1
Prop In Lane		1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h		190	1076	895	67	1798	0	235	407	330	23	309	258
V/C Ratio(X)		0.85	0.72	0.06	0.47	0.34	0.00	0.72	0.05	0.12	0.48	0.03	0.67
Avail Cap(c_a), veh/h		517	1076	895	222	1798	0	574	413	335	296	413	344
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)		0.82	0.82	0.82	0.93	0.93	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		46.2	0.0	0.0	56.6	17.5	0.0	54.8	36.0	36.6	58.8	41.1	46.3
Incr Delay (d2), s/veh		8.5	3.4	0.1	4.6	0.5	0.0	4.2	0.0	0.2	15.1	0.0	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(-26165%),veh/ln		5.6	1.0	0.0	1.1	6.1	0.0	2.9	0.5	1.1	0.5	0.3	5.6
LnGrp Delay(d),s/veh		54.7	3.4	0.1	61.2	18.0	0.0	59.0	36.0	36.7	74.0	41.1	49.2
LnGrp LOS		D	A	A	E	B		E	D	D	E	D	D
Approach Vol, veh/h			986			637			230			192	
Approach Delay, s/veh			11.6			20.1			53.1			50.3	
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	8.5	74.3	12.2	25.0	16.9	66.0	5.5	31.6					
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0					
Max Green Setting (Gmax), s	40.0	40.0	20.0	28.0	35.0	20.0	20.0	28.0					
Max Q Clear Time (g_c+14), s	2.0	2.0	7.8	15.1	12.5	14.2	2.7	4.7					
Green Ext Time (p_c), s	0.0	13.1	0.4	1.2	0.4	4.1	0.0	1.6					

Intersection Summary

HCM 2010 Ctrl Delay	22.6
HCM 2010 LOS	C

Notes

User approved ignoring U-Turning movement.

Intersection									
Intersection Delay, s/veh11.1									
Intersection LOS B									
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	307	156	0	42	163	0	146	29
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	327	166	0	45	173	0	155	31
Number of Lanes	0	1	1	0	1	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	11.5	10.2	10.9
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	83%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%
Vol Right, %	17%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	175	307	156	42	163
LT Vol	146	0	0	42	0
Through Vol	0	307	0	0	163
RT Vol	29	0	156	0	0
Lane Flow Rate	186	327	166	45	173
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.287	0.48	0.211	0.075	0.267
Departure Headway (Hd)	5.545	5.292	4.586	6.052	5.546
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	642	676	775	587	642
Service Time	3.626	3.064	2.358	3.842	3.336
HCM Lane V/C Ratio	0.29	0.484	0.214	0.077	0.269
HCM Control Delay	10.9	12.9	8.6	9.3	10.4
HCM Lane LOS	B	B	A	A	B
HCM 95th-tile Q	1.2	2.6	0.8	0.2	1.1

**Intersection**

Intersection Delay, s/veh 8.8  
Intersection LOS A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	1	113	155	9	0	0	33	10	0	6	7	0	1	19	8	90
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, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	120	165	10	0	0	35	11	0	6	7	0	1	20	9	96
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.2	8.1	8.5	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	95%	100%	77%	0%	8%
Vol Right, %	0%	0%	0%	5%	0%	23%	0%	92%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	7	114	164	0	43	20	98
LT Vol	6	0	114	0	0	0	20	0
Through Vol	0	7	0	155	0	33	0	8
RT Vol	0	0	0	9	0	10	0	90
Lane Flow Rate	6	7	121	174	0	46	21	104
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.011	0.011	0.183	0.237	0	0.064	0.035	0.138
Departure Headway (Hd)	6.029	5.525	5.419	4.88	5.164	5.001	5.911	4.76
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	594	648	663	736	0	716	607	754
Service Time	3.764	3.259	3.144	2.604	2.897	2.734	3.636	2.484
HCM Lane V/C Ratio	0.01	0.011	0.183	0.236	0	0.064	0.035	0.138
HCM Control Delay	8.8	8.3	9.4	9.1	7.9	8.1	8.9	8.2
HCM Lane LOS	A	A	A	A	N	A	A	A
HCM 95th-tile Q	0	0	0.7	0.9	0	0.2	0.1	0.5

HCM 2010 Signalized Intersection Summary  
40: Pole Line Rd & E 5th St

Existing Plus MRIC  
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	122	102	172	122	188	202	258	318	224	134	323	119
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	0.99		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	1812	1900	1810	1836	1900	1863	1863	1900	1863	1863	1827
Adj Flow Rate, veh/h	130	109	0	130	200	0	274	338	0	143	344	0
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	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, %	7	3	3	5	4	4	2	2	2	2	2	4
Cap, veh/h	164	583	0	166	510	0	487	827	0	493	827	689
Arrive On Green	0.10	0.17	0.00	0.10	0.15	0.00	0.44	0.44	0.00	0.44	0.44	0.00
Sat Flow, veh/h	1691	3533	0	1723	3580	0	1025	1863	0	1037	1863	1553
Grp Volume(v), veh/h	130	109	0	130	200	0	274	338	0	143	344	0
Grp Sat Flow(s),veh/h/ln	1691	1721	0	1723	1744	0	1025	1863	0	1037	1863	1553
Q Serve(g_s), s	3.4	1.2	0.0	3.3	2.3	0.0	11.1	5.5	0.0	4.9	5.6	0.0
Cycle Q Clear(g_c), s	3.4	1.2	0.0	3.3	2.3	0.0	16.8	5.5	0.0	10.4	5.6	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	583	0	166	510	0	487	827	0	493	827	689
V/C Ratio(X)	0.79	0.19	0.00	0.78	0.39	0.00	0.56	0.41	0.00	0.29	0.42	0.00
Avail Cap(c_a), veh/h	378	2000	0	424	1949	0	513	874	0	519	874	729
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.8	15.9	0.0	19.8	17.3	0.0	14.2	8.5	0.0	12.0	8.5	0.0
Incr Delay (d2), s/veh	3.2	0.1	0.0	3.1	0.2	0.0	0.7	0.1	0.0	0.1	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(-26165%),veh/ln	0.6	0.0	1.7	1.1	0.0	3.2	2.8	0.0	1.4	2.9	0.0	
LnGrp Delay(d),s/veh	23.0	16.0	0.0	22.8	17.5	0.0	14.9	8.6	0.0	12.1	8.6	0.0
LnGrp LOS	C	B		C	B		B	A		B	A	
Approach Vol, veh/h		239			330			612			487	
Approach Delay, s/veh		19.8			19.6			11.4			9.6	
Approach LOS		B			B			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	12.6		23.9	9.3	11.5		23.9				
Change Period (Y+Rc), s	4.0	* 5		4.0	5.0	5.0		4.0				
Max Green Setting (Gmax), s	26	* 26		21.0	10.0	25.0		21.0				
Max Q Clear Time (g_c+1), s	3.2			12.4	5.4	4.3		18.8				
Green Ext Time (p_c), s	0.1	1.3		3.0	0.1	1.3		1.1				

Intersection Summary

HCM 2010 Ctrl Delay	13.7
HCM 2010 LOS	B

Notes

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

HCM 2010 Signalized Intersection Summary  
41: L St & E 5th St

Existing Plus MRIC  
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	37	232	121	61	433	80	95	203	115	45	120	76
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		0.91	1.00		0.96	1.00		0.92	1.00		0.90
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	1863	1793	1900	1727	1863	1863	1863	1863	1667	1863	1863	1863
Adj Flow Rate, veh/h	39	247	129	65	461	85	101	216	122	48	128	81
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	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, %	2	8	8	10	2	2	2	2	14	2	2	2
Cap, veh/h	75	358	187	100	657	535	138	380	266	88	327	250
Arrive On Green	0.04	0.33	0.33	0.06	0.35	0.35	0.08	0.20	0.20	0.05	0.18	0.18
Sat Flow, veh/h	1774	1071	559	1645	1863	1517	1774	1863	1304	1774	1863	1422
Grp Volume(v), veh/h	39	0	376	65	461	85	101	216	122	48	128	81
Grp Sat Flow(s),veh/h/ln	1774	0	1630	1645	1863	1517	1774	1863	1304	1774	1863	1422
Q Serve(g_s), s	1.0	0.0	9.4	1.8	10.0	1.8	2.6	4.9	3.9	1.2	2.9	2.3
Cycle Q Clear(g_c), s	1.0	0.0	9.4	1.8	10.0	1.8	2.6	4.9	3.9	1.2	2.9	2.3
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	75	0	545	100	657	535	138	380	266	88	327	250
V/C Ratio(X)	0.52	0.00	0.69	0.65	0.70	0.16	0.73	0.57	0.46	0.55	0.39	0.32
Avail Cap(c_a), veh/h	302	0	1059	280	813	662	302	1032	722	302	635	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	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	22.0	0.0	13.5	21.6	13.1	10.4	21.2	16.8	16.4	21.8	17.1	16.9
Incr Delay (d2), s/veh	2.0	0.0	0.6	2.6	1.3	0.1	2.8	0.5	0.5	2.0	0.3	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(-26165%),veh/ln	0.0	0.0	4.3	0.9	5.4	0.7	1.4	2.6	1.4	0.6	1.5	0.9
LnGrp Delay(d),s/veh	24.0	0.0	14.1	24.2	14.4	10.5	23.9	17.3	16.9	23.8	17.4	17.2
LnGrp LOS	C		B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		415			611			439			257	
Approach Delay, s/veh		15.0			14.9			18.7			18.5	
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	6.9	20.2	7.7	12.2	6.0	21.1	6.3	13.6				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	30.5	30.5	8.0	16.0	8.0	20.5	8.0	26.0				
Max Q Clear Time (g_c+1), s	11.4	11.4	4.6	4.9	3.0	12.0	3.2	6.9				
Green Ext Time (p_c), s	0.0	3.7	0.0	1.5	0.0	2.6	0.0	1.7				

Intersection Summary

HCM 2010 Ctrl Delay	16.4
HCM 2010 LOS	B

Notes

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

HCM 2010 Signalized Intersection Summary  
57: Pole Line Rd & Bike Dummy/Loyola Dr

Existing Plus MRIC  
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑		↖		↖		↖		↖	↑	
Volume (veh/h)	0	0	0	68	0	130	0	408	87	93	360	0
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		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	0	1863	0	1863	0	1863	0	1842	1900	1810	1845	0
Adj Flow Rate, veh/h	0	0	0	72	0	138	0	434	93	99	383	0
Adj No. of Lanes	0	1	0	1	0	1	0	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, %	0	2	0	2	0	2	0	3	3	5	3	0
Cap, veh/h	0	6	0	86	0	0	0	685	147	126	1228	0
Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.47	0.47	0.07	0.67	0.00
Sat Flow, veh/h	0-55882		0	1774	72		0	1461	313	1723	1845	0
Grp Volume(v), veh/h	0	0	0	72	22.7		0	0	527	99	383	0
Grp Sat Flow(s),veh/h/ln	0	1863	0	1774	C		0	0	1774	1723	1845	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3			0.0	0.0	7.2	1.8	2.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.3			0.0	0.0	7.2	1.8	2.8	0.0
Prop In Lane	0.00		0.00	1.00			0.00		0.18	1.00		0.00
Lane Grp Cap(c), veh/h	0	6	0	86			0	0	832	126	1228	0
V/C Ratio(X)	0.00	0.00	0.00	0.83			0.00	0.00	0.63	0.79	0.31	0.00
Avail Cap(c_a), veh/h	0	405	0	319			0	0	1376	214	1431	0
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)	0.00	0.00	0.00	1.00			0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	15.2			0.0	0.0	6.5	14.7	2.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	7.5			0.0	0.0	0.3	4.1	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
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.0	0.8			0.0	0.0	3.6	1.0	1.4	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	22.7			0.0	0.0	6.8	18.8	2.3	0.0
LnGrp LOS				C					A	B	A	
Approach Vol, veh/h		0						527			482	
Approach Delay, s/veh		0.0						6.8			5.7	
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	6.4	20.1	5.8	0.0		26.5						
Change Period (Y+Rc), s	4.0	5.0	* 4.2	3.0		5.0						
Max Green Setting (Gmax), s	1.0	25.0	* 5.8	7.0		25.0						
Max Q Clear Time (g_c+I), s	1.0	9.2	3.3	0.0		4.8						
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0		4.2						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				7.4								
HCM 2010 LOS				A								
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												



**Intersection**

Intersection Delay, s/veh 9.1  
Intersection LOS A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	24	0	28	0	11	35	4	0	47	161	77	0	0	137	41
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, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
Mvmt Flow	0	26	0	30	0	12	37	4	0	50	171	82	0	0	146	44
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	8.3	8.5	9.7	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	46%	22%	0%
Vol Thru, %	56%	0%	70%	77%
Vol Right, %	27%	54%	8%	23%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	285	52	50	178
LT Vol	47	24	11	0
Through Vol	161	0	35	137
RT Vol	77	28	4	41
Lane Flow Rate	303	55	53	189
Geometry Grp	1	1	1	1
Degree of Util (X)	0.36	0.075	0.075	0.23
Departure Headway (Hd)	4.277	4.849	5.077	4.382
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	843	737	704	820
Service Time	2.302	2.888	3.117	2.41
HCM Lane V/C Ratio	0.359	0.075	0.075	0.23
HCM Control Delay	9.7	8.3	8.5	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.6	0.2	0.2	0.9

**Intersection**

Int Delay, s/veh 0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	45	2	18	456	485	45
Conflicting Peds, #/hr	0	3	0	0	0	7
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	4	3	6	3	4
Mvmt Flow	48	2	19	485	516	48

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1066	543	567 0
Stage 1	543	-	- -
Stage 2	523	-	- -
Critical Hdwy	6.42	6.24	4.13 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.336	2.227 -
Pot Cap-1 Maneuver	246	536	1000 -
Stage 1	582	-	- -
Stage 2	595	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	240	535	1000 -
Mov Cap-2 Maneuver	375	-	- -
Stage 1	581	-	- -
Stage 2	582	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	15.9	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1000	-	380	-	-
HCM Lane V/C Ratio	0.019	-	0.132	-	-
HCM Control Delay (s)	8.7	-	15.9	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

**Intersection**

Int Delay, s/veh 5.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	121	148	118	251	272	74
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	129	157	126	267	289	79

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	807	289	0
Stage 1	289	-	-
Stage 2	518	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	351	750	1273
Stage 1	760	-	-
Stage 2	598	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	310	750	1273
Mov Cap-2 Maneuver	310	-	-
Stage 1	760	-	-
Stage 2	529	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.2	2.6	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1273	-	310	750	-	-
HCM Lane V/C Ratio	0.099	-	0.415	0.21	-	-
HCM Control Delay (s)	8.1	0	24.6	11.1	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	2	0.8	-	-

**Intersection**

Int Delay, s/veh 7.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	6	237	35	50	26	14
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	252	37	53	28	15

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	163	35	43
Stage 1	35	-	-
Stage 2	128	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	828	1038	1566
Stage 1	987	-	-
Stage 2	898	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	808	1038	1566
Mov Cap-2 Maneuver	808	-	-
Stage 1	987	-	-
Stage 2	876	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1566	-	1031	-	-
HCM Lane V/C Ratio	0.024	-	0.251	-	-
HCM Control Delay (s)	7.4	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-

**Intersection**

Int Delay, s/veh 4.2

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Vol, veh/h	258	0	2	11	1	86	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	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	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	274	0	2	12	1	91	73

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	298
Stage 1	-	-	274
Stage 2	-	-	24
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1289	693
Stage 1	-	-	772
Stage 2	-	-	999
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-7	693
Mov Cap-2 Maneuver	-	-	693
Stage 1	-	-	772
Stage 2	-	-	999

Approach	EB	WB	NB
HCM Control Delay, s	0		11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	722	-	-	+	-
HCM Lane V/C Ratio	0.228	-	-	-	-
HCM Control Delay (s)	11.5	-	-	-	-
HCM Lane LOS	B	-	-	-	-
HCM 95th %tile Q(veh)	0.9	-	-	-	-

**Notes**

-: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	190	12	46	227	5	14
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	202	13	49	241	5	15

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	290	0	587
Stage 1	-	-	170
Stage 2	-	-	417
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1272	-	472
Stage 1	-	-	860
Stage 2	-	-	665
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1272	-	396
Mov Cap-2 Maneuver	-	-	396
Stage 1	-	-	860
Stage 2	-	-	559

Approach	EB	WB	SB
HCM Control Delay, s	7.9	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1272	-	-	-	663
HCM Lane V/C Ratio	0.159	-	-	-	0.03
HCM Control Delay (s)	8.4	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.6	-	-	-	0.1

Intersection			
Intersection Delay, s/veh	12.4		
Intersection LOS	B		
Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	190	593	450
Demand Flow Rate, veh/h	194	605	459
Vehicles Circulating, veh/h	154	82	447
Vehicles Exiting, veh/h	752	266	240
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.7	11.2	16.7
Approach LOS	A	B	C
Lane	Left	Left	Left
Designated Moves	LT	LTR	LR
Assumed Moves	LT	LTR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	194	605	459
Cap Entry Lane, veh/h	969	1041	723
Entry HV Adj Factor	0.978	0.981	0.980
Flow Entry, veh/h	190	593	450
Cap Entry, veh/h	948	1021	708
V/C Ratio	0.200	0.581	0.635
Control Delay, s/veh	5.7	11.2	16.7
LOS	A	B	C
95th %tile Queue, veh	1	4	5

Intersection																
Intersection Delay, s/veh	8.6															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0	0	6	3	106	0	60	72	0	0	0	373	320
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, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	6	3	113	0	64	77	0	0	0	397	340
Number of Lanes	0	0	0	0	0	0	2	0	0	1	2	0	0	0	2	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	9.5	9.1	8.4
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	80%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	20%	1%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	99%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	36	36	8	108	187	187	320
LT Vol	60	0	0	6	0	0	0	0
Through Vol	0	36	36	2	2	187	187	0
RT Vol	0	0	0	0	106	0	0	320
Lane Flow Rate	64	38	38	8	114	198	198	340
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.115	0.063	0.045	0.015	0.175	0.288	0.288	0.264
Departure Headway (Hd)	6.466	5.963	4.218	6.6	5.513	5.233	5.233	2.787
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	550	596	837	538	644	686	686	1280
Service Time	4.255	3.752	2.006	4.394	3.307	2.974	2.974	0.527
HCM Lane V/C Ratio	0.116	0.064	0.045	0.015	0.177	0.289	0.289	0.266
HCM Control Delay	10.1	9.2	7.2	9.5	9.5	10.1	10.1	6.5
HCM Lane LOS	B	A	A	A	A	B	B	A
HCM 95th-tile Q	0.4	0.2	0.1	0	0.6	1.2	1.2	1.1



Intersection																
Intersection Delay, s/veh12.6																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	60	1	23	0	0	0	0	0	0	71	36	1	348	30	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	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	64	1	24	0	0	0	0	0	0	76	38	1	370	32	0
Number of Lanes	0	1	1	0	0	0	0	0	0	0	1	0	0	1	2	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	9.6	9.4	14.2
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%
Vol Thru, %	66%	0%	4%	0%	100%	100%
Vol Right, %	34%	0%	96%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	107	60	24	349	15	15
LT Vol	0	60	0	349	0	0
Through Vol	71	0	1	0	15	15
RT Vol	36	0	23	0	0	0
Lane Flow Rate	114	64	26	371	16	16
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	0.173	0.115	0.038	0.558	0.022	0.022
Departure Headway (Hd)	5.457	6.504	5.328	5.406	4.905	4.905
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	655	549	668	668	729	729
Service Time	3.212	4.267	3.091	3.142	2.64	2.64
HCM Lane V/C Ratio	0.174	0.117	0.039	0.555	0.022	0.022
HCM Control Delay	9.4	10.1	8.3	14.8	7.8	7.8
HCM Lane LOS	A	B	A	B	A	A
HCM 95th-tile Q	0.6	0.4	0.1	3.5	0.1	0.1

**Intersection**

Int Delay, s/veh 4.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	223	757	26	0	374
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	237	805	28	0	398

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1018	819	0	0	833	0
Stage 1	819	-	-	-	-	-
Stage 2	199	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.12	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.218	-
Pot Cap-1 Maneuver	248	375	-	-	800	-
Stage 1	432	-	-	-	-	-
Stage 2	816	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	248	375	-	-	800	-
Mov Cap-2 Maneuver	248	-	-	-	-	-
Stage 1	432	-	-	-	-	-
Stage 2	816	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29.7	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	375	800	-
HCM Lane V/C Ratio	-	-	0.633	-	-
HCM Control Delay (s)	-	-	29.7	0	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	4.2	0	-

**Intersection**

Int Delay, s/veh 2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	26	266	106	13	60	60
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	283	113	14	64	64

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	127	0	458
Stage 1	-	-	120
Stage 2	-	-	338
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1459	-	561
Stage 1	-	-	905
Stage 2	-	-	722
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1459	-	550
Mov Cap-2 Maneuver	-	-	550
Stage 1	-	-	905
Stage 2	-	-	708

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1459	-	-	-	550	931
HCM Lane V/C Ratio	0.019	-	-	-	0.116	0.069
HCM Control Delay (s)	7.5	-	-	-	12.4	9.2
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4	0.2

**Intersection**

Int Delay, s/veh 6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	39	292	16	0	166	0	79	0	0	0	0	240
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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	311	17	0	177	0	84	0	0	0	0	255

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	177	0	0	328	0	0	706	579	319	579	588	177
Stage 1	-	-	-	-	-	-	402	402	-	177	177	-
Stage 2	-	-	-	-	-	-	304	177	-	402	411	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1399	-	-	1232	-	-	351	426	722	426	421	866
Stage 1	-	-	-	-	-	-	625	600	-	825	753	-
Stage 2	-	-	-	-	-	-	705	753	-	625	595	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1399	-	-	1232	-	-	242	414	722	416	409	866
Mov Cap-2 Maneuver	-	-	-	-	-	-	242	414	-	416	409	-
Stage 1	-	-	-	-	-	-	607	582	-	801	753	-
Stage 2	-	-	-	-	-	-	497	753	-	607	578	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0	27.6	10.9
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	242	1399	-	-	1232	-	-	866
HCM Lane V/C Ratio	0.347	0.03	-	-	-	-	-	0.295
HCM Control Delay (s)	27.6	7.7	-	-	0	-	-	10.9
HCM Lane LOS	D	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1.5	0.1	-	-	0	-	-	1.2

**J.3.C – EXISTING PLUS PHASE 1**



Intersection												
Int Delay, s/veh	1.6											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	750	30	10	530	0	40	0	40	0	0	10
Conflicting Peds, #/hr	0	0	7	0	0	16	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	3	10	4	2	2	2	4	2	2	2
Mvmt Flow	0	781	31	10	552	0	42	0	42	0	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	552	0	0	813	0	0	1094	1370	422	964	1386	283
Stage 1	-	-	-	-	-	-	797	797	-	573	573	-
Stage 2	-	-	-	-	-	-	297	573	-	391	813	-
Critical Hdwy	4.14	-	-	4.3	-	-	7.54	6.54	6.98	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.3	-	-	3.52	4.02	3.34	3.52	4.02	3.32
Pot Cap-1 Maneuver	1014	-	-	760	-	-	168	145	575	210	142	714
Stage 1	-	-	-	-	-	-	346	397	-	472	502	-
Stage 2	-	-	-	-	-	-	687	502	-	605	390	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1008	-	-	750	-	-	163	143	567	190	140	710
Mov Cap-2 Maneuver	-	-	-	-	-	-	163	143	-	190	140	-
Stage 1	-	-	-	-	-	-	346	397	-	472	495	-
Stage 2	-	-	-	-	-	-	664	495	-	553	390	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	26.1	10.1
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	253	1008	-	-	750	-	-	710
HCM Lane V/C Ratio	0.329	-	-	-	0.014	-	-	0.015
HCM Control Delay (s)	26.1	0	-	-	9.9	-	-	10.1
HCM Lane LOS	D	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1.4	0	-	-	0	-	-	0

**Intersection**

Int Delay, s/veh 1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	30	80	90	30	0	10
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	87	98	33	0	11

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	130	0	266
Stage 1	-	-	114
Stage 2	-	-	152
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1455	-	723
Stage 1	-	-	911
Stage 2	-	-	876
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1455	-	707
Mov Cap-2 Maneuver	-	-	707
Stage 1	-	-	911
Stage 2	-	-	856

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1455	-	-	-	-	939
HCM Lane V/C Ratio	0.022	-	-	-	-	0.012
HCM Control Delay (s)	7.5	-	-	-	0	8.9
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0

Intersection													
Int Delay, s/veh	1.6												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	560	40	20	810	0	20	10	30	10	0	10
Conflicting Peds, #/hr	0	0	0	0	0	9	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	3	10	4	2	2	2	4	2	2	2
Mvmt Flow	11	596	43	21	862	0	21	11	32	11	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	862	0	0	638	0	0	1111	1542	328	1228	1564	431
Stage 1	-	-	-	-	-	-	638	638	-	904	904	-
Stage 2	-	-	-	-	-	-	473	904	-	324	660	-
Critical Hdwy	4.14	-	-	4.3	-	-	7.54	6.54	6.98	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.3	-	-	3.52	4.02	3.34	3.52	4.02	3.32
Pot Cap-1 Maneuver	776	-	-	889	-	-	164	114	662	134	111	573
Stage 1	-	-	-	-	-	-	431	469	-	298	354	-
Stage 2	-	-	-	-	-	-	541	354	-	662	458	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	776	-	-	882	-	-	156	110	657	114	107	573
Mov Cap-2 Maneuver	-	-	-	-	-	-	156	110	-	114	107	-
Stage 1	-	-	-	-	-	-	425	462	-	294	346	-
Stage 2	-	-	-	-	-	-	518	346	-	602	452	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	26.9	26.3
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	227	776	-	-	882	-	-	190
HCM Lane V/C Ratio	0.281	0.014	-	-	0.024	-	-	0.112
HCM Control Delay (s)	26.9	9.7	-	-	9.2	-	-	26.3
HCM Lane LOS	D	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.1	0	-	-	0.1	-	-	0.4



**Intersection**

Int Delay, s/veh 1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	270	130	0	30	30
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	293	141	0	33	33

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	141	0	456
Stage 1	-	-	141
Stage 2	-	-	315
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1442	-	562
Stage 1	-	-	886
Stage 2	-	-	740
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1442	-	558
Mov Cap-2 Maneuver	-	-	558
Stage 1	-	-	886
Stage 2	-	-	734

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1442	-	-	-	558	907
HCM Lane V/C Ratio	0.008	-	-	-	0.058	0.036
HCM Control Delay (s)	7.5	-	-	-	11.9	9.1
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.1

**J.3.D – EXISTING PLUS MIXED-USE ALTERNATIVE**



**Intersection**

Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	50	10	10	0	10	20	110	0	20	260	10
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	52	10	10	0	10	21	115	0	21	271	10
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	9.9	9.6	9.7
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	71%	7%	100%	0%	0%
Vol Thru, %	0%	100%	90%	14%	14%	0%	100%	82%
Vol Right, %	0%	0%	10%	14%	79%	0%	0%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	173	97	70	140	60	93	57
LT Vol	20	0	0	50	10	60	0	0
Through Vol	0	173	87	10	20	0	93	47
RT Vol	0	0	10	10	110	0	0	10
Lane Flow Rate	21	181	101	73	146	62	97	59
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.034	0.27	0.149	0.127	0.216	0.104	0.148	0.088
Departure Headway (Hd)	5.89	5.385	5.312	6.281	5.324	5.972	5.467	5.342
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	603	661	669	575	668	594	648	663
Service Time	3.677	3.171	3.098	3.981	3.113	3.766	3.26	3.135
HCM Lane V/C Ratio	0.035	0.274	0.151	0.127	0.219	0.104	0.15	0.089
HCM Control Delay	8.9	10.2	9	9.9	9.6	9.5	9.2	8.7
HCM Lane LOS	A	B	A	A	A	A	A	A
HCM 95th-tile Q	0.1	1.1	0.5	0.4	0.8	0.3	0.5	0.3

**Intersection**

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	60	140	10
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	63	146	10
Number of Lanes	0	1	2	0






















**Approach** SB

Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.2
HCM LOS	A

**Lane**






















HCM 2010 Signalized Intersection Summary  
2: Mace Blvd & Cowell Blvd

E+P MRIC Mixed-Use  
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	130	90	20	40	110	150	30	310	80	70	150	40
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	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	135	94	0	42	115	0	31	323	0	73	156	0
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	182	363	0	84	260	0	66	762	0	128	885	0
Arrive On Green	0.10	0.19	0.00	0.05	0.14	0.00	0.04	0.22	0.00	0.07	0.25	0.00
Sat Flow, veh/h	1774	1863	0	1774	1863	0	1774	3632	0	1774	3632	0
Grp Volume(v), veh/h	135	94	0	42	115	0	31	323	0	73	156	0
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	0	1774	1770	0	1774	1770	0
Q Serve(g_s), s	2.7	1.5	0.0	0.8	2.0	0.0	0.6	2.8	0.0	1.4	1.2	0.0
Cycle Q Clear(g_c), s	2.7	1.5	0.0	0.8	2.0	0.0	0.6	2.8	0.0	1.4	1.2	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	182	363	0	84	260	0	66	762	0	128	885	0
V/C Ratio(X)	0.74	0.26	0.00	0.50	0.44	0.00	0.47	0.42	0.00	0.57	0.18	0.00
Avail Cap(c_a), veh/h	540	567	0	540	567	0	540	1960	0	540	1960	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)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.7	12.3	0.0	16.8	14.2	0.0	17.0	12.2	0.0	16.2	10.6	0.0
Incr Delay (d2), s/veh	5.8	0.4	0.0	4.5	1.2	0.0	5.2	0.4	0.0	4.0	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(-26165%),veh/ln	1.6	0.8	0.0	0.5	1.1	0.0	0.4	1.4	0.0	0.8	0.6	0.0
LnGrp Delay(d),s/veh	21.6	12.7	0.0	21.2	15.4	0.0	22.2	12.6	0.0	20.2	10.7	0.0
LnGrp LOS	C	B		C	B		C	B		C	B	
Approach Vol, veh/h		229			157			354			229	
Approach Delay, s/veh		17.9			17.0			13.5			13.7	
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	6.6	12.8	5.7	11.0	5.3	14.0	7.7	9.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	20.0	11.0	11.0	11.0	20.0	11.0	11.0				
Max Q Clear Time (g_c+I1), s	3.4	4.8	2.8	3.5	2.6	3.2	4.7	4.0				
Green Ext Time (p_c), s	0.1	2.6	0.0	0.6	0.0	2.7	0.2	0.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			15.2									
HCM 2010 LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary  
 7: 2nd St & Target/Faraday Ave

E+P MRIC Mixed-Use  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	10	20	10	0	10	30	250	10	50	490	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	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	43	11	22	11	0	11	33	272	11	54	533	98
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	34	68	20	0	55	55	1591	64	81	882	749
Arrive On Green	0.04	0.06	0.06	0.01	0.00	0.03	0.03	0.46	0.46	0.05	0.47	0.47
Sat Flow, veh/h	1774	556	1111	1774	0	1583	1774	3468	140	1774	1863	1583
Grp Volume(v), veh/h	43	0	33	11	0	11	33	138	145	54	533	98
Grp Sat Flow(s),veh/h/ln	1774	0	1667	1774	0	1583	1774	1770	1838	1774	1863	1583
Q Serve(g_s), s	0.9	0.0	0.7	0.2	0.0	0.3	0.7	1.8	1.8	1.2	8.2	1.4
Cycle Q Clear(g_c), s	0.9	0.0	0.7	0.2	0.0	0.3	0.7	1.8	1.8	1.2	8.2	1.4
Prop In Lane	1.00		0.67	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	68	0	102	20	0	55	55	812	843	81	882	749
V/C Ratio(X)	0.63	0.00	0.32	0.54	0.00	0.20	0.60	0.17	0.17	0.67	0.60	0.13
Avail Cap(c_a), veh/h	182	0	470	182	0	447	182	1157	1202	182	1218	1035
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	18.5	0.0	17.5	19.2	0.0	18.3	18.7	6.2	6.2	18.3	7.6	5.8
Incr Delay (d2), s/veh	9.4	0.0	3.9	20.2	0.0	3.8	10.2	0.2	0.2	9.2	1.4	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(-26165%),veh/ln	0.6	0.0	0.4	0.2	0.0	0.2	0.5	0.9	0.9	0.8	4.5	0.6
LnGrp Delay(d),s/veh	27.9	0.0	21.4	39.4	0.0	22.1	28.9	6.4	6.4	27.6	9.0	5.9
LnGrp LOS	C		C	D		C	C	A	A	C	A	A
Approach Vol, veh/h		76			22			316			685	
Approach Delay, s/veh		25.1			30.7			8.8			10.0	
Approach LOS		C			C			A			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	22.4	4.4	6.4	5.2	23.0	5.5	5.3				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	4.0	25.5	4.0	11.0	4.0	25.5	4.0	11.0				
Max Q Clear Time (g_c+I1), s	3.2	3.8	2.2	2.7	2.7	10.2	2.9	2.3				
Green Ext Time (p_c), s	0.0	10.3	0.0	0.1	0.0	8.2	0.0	0.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			11.1									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	60	280	280	100	140	20
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	150	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	292	292	104	146	21

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	292	0	709
Stage 1	-	-	292
Stage 2	-	-	417
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1270	-	401
Stage 1	-	-	758
Stage 2	-	-	665
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1270	-	381
Mov Cap-2 Maneuver	-	-	381
Stage 1	-	-	758
Stage 2	-	-	632

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	18.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1270	-	-	-	381	747
HCM Lane V/C Ratio	0.049	-	-	-	0.383	0.028
HCM Control Delay (s)	8	-	-	-	20.2	10
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.8	0.1

**Intersection**

Int Delay, s/veh 3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	40	240	230	60	130	40
Conflicting Peds, #/hr	0	0	0	5	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	125	0	125
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	250	240	62	135	42

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	240	0	240
Stage 1	-	-	240
Stage 2	-	-	333
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1327	-	481
Stage 1	-	-	800
Stage 2	-	-	726
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1327	-	466
Mov Cap-2 Maneuver	-	-	466
Stage 1	-	-	800
Stage 2	-	-	703

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1327	-	-	-	466	799
HCM Lane V/C Ratio	0.031	-	-	-	0.291	0.052
HCM Control Delay (s)	7.8	-	-	-	15.9	9.8
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	1.2	0.2



HCM 2010 Signalized Intersection Summary  
 10: Harper JR HS Access & Covell Blvd

E+P MRIC Mixed-Use  
 AM Peak Hour

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑	↑	↑		
Volume (veh/h)	740	40	50	370	10	10		
Number	2	12	1	6	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	1863	1863	1863	1863	1863	1900		
Adj Flow Rate, veh/h	771	42	52	385	10	10		
Adj No. of Lanes	2	1	1	1	0	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	2	2	0	0		
Cap, veh/h	2178	975	117	1454	17	17		
Arrive On Green	0.62	0.62	0.07	0.78	0.02	0.02		
Sat Flow, veh/h	3632	1583	1774	1863	801	801		
Grp Volume(v), veh/h	771	42	52	385	21	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1774	1863	1681	0		
Q Serve(g_s), s	4.3	0.4	1.1	2.3	0.5	0.0		
Cycle Q Clear(g_c), s	4.3	0.4	1.1	2.3	0.5	0.0		
Prop In Lane		1.00	1.00		0.48	0.48		
Lane Grp Cap(c), veh/h	2178	975	117	1454	35	0		
V/C Ratio(X)	0.35	0.04	0.45	0.26	0.60	0.00		
Avail Cap(c_a), veh/h	2724	1219	705	1454	1086	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	3.8	3.1	18.1	1.2	19.6	0.0		
Incr Delay (d2), s/veh	0.1	0.0	5.6	0.1	15.4	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	2.1	0.2	0.7	1.1	0.4	0.0		
LnGrp Delay(d),s/veh	3.9	3.1	23.7	1.3	35.0	0.0		
LnGrp LOS	A	A	C	A	C			
Approach Vol, veh/h	813			437	21			
Approach Delay, s/veh	3.9			4.0	35.0			
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	6.6	28.8				35.4		4.8
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	31.0				31.0		26.0
Max Q Clear Time (g_c+I1), s	3.1	6.3				4.3		2.5
Green Ext Time (p_c), s	0.2	8.2				8.6		0.0
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			4.4					
HCM 2010 LOS			A					
<b>Notes</b>								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary  
 11: Alhambra Dr & Covell Blvd

E+P MRIC Mixed-Use  
 AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑	↑	↑		
Volume (veh/h)	710	250	10	370	180	70		
Number	2	12	1	6	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	1863	1863	1520	1845	1863	1900		
Adj Flow Rate, veh/h	740	0	10	385	188	0		
Adj No. of Lanes	2	1	1	1	0	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	25	3	0	0		
Cap, veh/h	1542	690	19	1045	247	0		
Arrive On Green	0.44	0.00	0.01	0.57	0.14	0.00		
Sat Flow, veh/h	3632	1583	1448	1845	1765	0		
Grp Volume(v), veh/h	740	0	10	385	189	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1448	1845	1774	0		
Q Serve(g_s), s	5.1	0.0	0.2	3.9	3.5	0.0		
Cycle Q Clear(g_c), s	5.1	0.0	0.2	3.9	3.5	0.0		
Prop In Lane		1.00	1.00		0.99	0.00		
Lane Grp Cap(c), veh/h	1542	690	19	1045	248	0		
V/C Ratio(X)	0.48	0.00	0.52	0.37	0.76	0.00		
Avail Cap(c_a), veh/h	2027	907	340	1057	547	0		
HCM Platoon Ratio	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	0.00		
Uniform Delay (d), s/veh	6.9	0.0	16.7	4.0	14.1	0.0		
Incr Delay (d2), s/veh	0.4	0.0	20.2	0.4	4.8	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	2.6	0.0	0.2	2.0	2.0	0.0		
LnGrp Delay(d),s/veh	7.3	0.0	36.9	4.4	18.9	0.0		
LnGrp LOS	A		D	A	B			
Approach Vol, veh/h	740			395	189			
Approach Delay, s/veh	7.3			5.2	18.9			
Approach LOS	A			A	B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	4.5	20.3		9.3		24.8		
Change Period (Y+Rc), s	4.0	5.5		4.5		5.5		
Max Green Setting (Gmax), s	8.0	19.5		10.5		19.5		
Max Q Clear Time (g_c+I1), s	2.2	7.1		5.5		5.9		
Green Ext Time (p_c), s	0.0	7.8		0.2		8.3		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			8.3					
HCM 2010 LOS			A					
<b>Notes</b>								
User approved pedestrian interval to be less than phase max green.								

User approved volume balancing among the lanes for turning movement.

Intersection												
Int Delay, s/veh	2.3											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	900	30	10	540	0	40	0	60	0	0	10
Conflicting Peds, #/hr	0	0	7	0	0	16	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	3	10	4	2	2	2	4	2	2	2
Mvmt Flow	0	938	31	10	562	0	42	0	62	0	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	563	0	0	969	0	0	1255	1536	500	1052	1552	288
Stage 1	-	-	-	-	-	-	953	953	-	583	583	-
Stage 2	-	-	-	-	-	-	302	583	-	469	969	-
Critical Hdwy	4.14	-	-	4.3	-	-	7.54	6.54	6.98	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.3	-	-	3.52	4.02	3.34	3.52	4.02	3.32
Pot Cap-1 Maneuver	1005	-	-	660	-	-	128	115	511	181	112	709
Stage 1	-	-	-	-	-	-	278	336	-	465	497	-
Stage 2	-	-	-	-	-	-	682	497	-	544	330	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	999	-	-	651	-	-	124	113	504	155	110	705
Mov Cap-2 Maneuver	-	-	-	-	-	-	124	113	-	155	110	-
Stage 1	-	-	-	-	-	-	278	336	-	465	489	-
Stage 2	-	-	-	-	-	-	658	489	-	470	330	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	33.9	10.2
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	226	999	-	-	651	-	-	705
HCM Lane V/C Ratio	0.461	-	-	-	0.016	-	-	0.015
HCM Control Delay (s)	33.9	0	-	-	10.6	-	-	10.2
HCM Lane LOS	D	A	-	-	B	-	-	B
HCM 95th %tile Q(veh)	2.2	0	-	-	0	-	-	0

HCM 2010 Signalized Intersection Summary  
 13: Bike Dummy/Wright Blvd & Covell Blvd

E+P MRIC Mixed-Use  
 AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	680	0	0	520	70	0	0	0	250	0	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	1810	1863	0	0	1845	1900	0	1863	0	1863	0	1863
Adj Flow Rate, veh/h	42	708	0	0	542	0	0	0	0	260	0	0
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	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, %	5	2	0	0	3	3	0	2	0	2	0	2
Cap, veh/h	80	2126	0	0	1592	0	0	5	0	445	0	0
Arrive On Green	0.05	0.60	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.15	0.00	0.00
Sat Flow, veh/h	1723	3632	0	0	3689	0	0	-74510	0	1774	260	
Grp Volume(v), veh/h	42	708	0	0	542	0	0	0	0	260	0.0	
Grp Sat Flow(s),veh/h/ln	1723	1770	0	0	1752	0	0	1863	0	1774	A	
Q Serve(g_s), s	1.0	4.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	10.1		
Cycle Q Clear(g_c), s	1.0	4.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	10.1		
Prop In Lane	1.00		0.00	0.00		0.00	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	80	2126	0	0	1592	0	0	5	0	0		
V/C Ratio(X)	0.52	0.33	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00		
Avail Cap(c_a), veh/h	258	2126	0	0	2100	0	0	511	0	0		
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	1.00	0.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	18.7	4.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	5.2	0.2	0.0	0.0	0.3	0.0	0.0	0.0	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		
%ile BackOfQ(-26165%),veh/ln	0.6	1.9	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0		
LnGrp Delay(d),s/veh	23.8	4.2	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0		
LnGrp LOS	C	A			A							
Approach Vol, veh/h		750			542			0				
Approach Delay, s/veh		5.3			7.3			0.0				
Approach LOS		A			A							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		30.1			5.9	24.2	10.0	0.0				
Change Period (Y+Rc), s		6.0			4.0	6.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0			6.0	24.0	6.0	11.0				
Max Q Clear Time (g_c+I1), s		6.0			3.0	6.0	12.1	0.0				
Green Ext Time (p_c), s		12.2			0.0	12.2	0.0	0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			5.1									
HCM 2010 LOS			A									

**Intersection**

Int Delay, s/veh 1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	690	20	20	630	30	30
Conflicting Peds, #/hr	0	5	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	719	21	21	656	31	31

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	740
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	862
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	862
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	19.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	304	-	-	862	-
HCM Lane V/C Ratio	0.206	-	-	0.024	-
HCM Control Delay (s)	19.9	-	-	9.3	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

**Intersection**

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	670	10	30	630	0	30	10	30	10	0	20
Conflicting Peds, #/hr	0	0	7	0	0	11	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	Stop
Storage Length	125	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	698	10	31	656	0	31	10	31	10	0	21













Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	656	0	0	708	0	0	1115	1443	354	1094	1448	335
Stage 1	-	-	-	-	-	-	724	724	-	719	719	-
Stage 2	-	-	-	-	-	-	391	719	-	375	729	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	927	-	-	887	-	0	163	131	642	168	130	661
Stage 1	-	-	-	-	-	0	383	429	-	386	431	-
Stage 2	-	-	-	-	-	0	605	431	-	618	426	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	922	-	-	887	-	-	151	125	642	145	124	657
Mov Cap-2 Maneuver	-	-	-	-	-	-	151	125	-	145	124	-
Stage 1	-	-	-	-	-	-	379	424	-	382	416	-
Stage 2	-	-	-	-	-	-	562	416	-	567	421	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.4	30.1	13.9
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	215	922	-	-	887	-	435
HCM Lane V/C Ratio	0.339	0.011	-	-	0.035	-	0.072
HCM Control Delay (s)	30.1	8.9	-	-	9.2	-	13.9
HCM Lane LOS	D	A	-	-	A	-	B
HCM 95th %tile Q(veh)	1.4	0	-	-	0.1	-	0.2

HCM 2010 Signalized Intersection Summary  
 16: Birch Ln/Bike lane & Covell Blvd























E+P MRIC Mixed-Use  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↖		↗		↑	
Volume (veh/h)	0	660	80	40	640	0	70	0	30	0	0	0
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		0.96	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	0	1845	1863	1863	1863	0	1863	0	1863	0	1863	0
Adj Flow Rate, veh/h	0	688	83	42	667	0	73	0	31	0	0	0
Adj No. of Lanes	0	2	1	1	2	0	1	0	1	0	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, %	0	3	2	2	2	0	2	0	2	0	2	0
Cap, veh/h	0	1791	780	87	2440	0	91	0	0	0	6	0
Arrive On Green	0.00	0.51	0.51	0.05	0.69	0.00	0.05	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3597	1526	1774	3632	0	1774	73		0	-74510	0
Grp Volume(v), veh/h	0	688	83	42	667	0	73	29.1		0	0	0
Grp Sat Flow(s),veh/h/ln	0	1752	1526	1774	1770	0	1774	C		0	1863	0
Q Serve(g_s), s	0.0	3.7	0.9	0.7	2.2	0.0	1.3			0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	3.7	0.9	0.7	2.2	0.0	1.3			0.0	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00	1.00			0.00		0.00
Lane Grp Cap(c), veh/h	0	1791	780	87	2440	0	91			0	6	0
V/C Ratio(X)	0.00	0.38	0.11	0.48	0.27	0.00	0.80			0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	3178	1384	919	2980	0	1494			0	1267	0
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)	0.00	1.00	1.00	1.00	1.00	0.00	1.00			0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	4.6	3.9	14.3	1.8	0.0	14.5			0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	4.1	0.1	0.0	14.6			0.0	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
%ile BackOfQ(-26165%),veh/ln	0.0	1.8	0.4	0.4	1.0	0.0	1.0			0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	4.7	4.0	18.4	1.9	0.0	29.1			0.0	0.0	0.0
LnGrp LOS		A	A	B	A		C					
Approach Vol, veh/h		771			709						0	
Approach Delay, s/veh		4.6			2.9						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	5.5	19.8	5.6	0.0		25.3						
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0		4.0						
Max Green Setting (Gmax), s	16.0	28.0	26.0	21.0		26.0						
Max Q Clear Time (g_c+I1), s	2.7	5.7	3.3	0.0		4.2						
Green Ext Time (p_c), s	0.0	10.1	0.2	0.0		10.0						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			5.0									
HCM 2010 LOS			A									



HCM 2010 Signalized Intersection Summary  
 17: Pole Line Rd & Covell Blvd

E+P MRIC Mixed-Use  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	180	580	70	60	530	120	120	130	30	130	310	310
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		0.87	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	1863	1859	1900	1827	1863	1900	1845	1712	1863	1845	1827	1863
Adj Flow Rate, veh/h	188	604	0	62	552	0	125	135	31	135	323	323
Adj No. of Lanes	1	2	0	1	2	0	1	1	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, %	2	2	2	4	2	2	3	11	2	3	4	2
Cap, veh/h	239	1275	0	89	981	0	162	375	301	173	411	349
Arrive On Green	0.13	0.36	0.00	0.05	0.28	0.00	0.09	0.22	0.22	0.10	0.23	0.23
Sat Flow, veh/h	1774	3625	0	1740	3632	0	1757	1712	1373	1757	1827	1550
Grp Volume(v), veh/h	188	604	0	62	552	0	125	135	31	135	323	323
Grp Sat Flow(s),veh/h/ln	1774	1766	0	1740	1770	0	1757	1712	1373	1757	1827	1550
Q Serve(g_s), s	6.8	8.8	0.0	2.3	8.9	0.0	4.6	4.5	1.2	5.0	11.1	13.6
Cycle Q Clear(g_c), s	6.8	8.8	0.0	2.3	8.9	0.0	4.6	4.5	1.2	5.0	11.1	13.6
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	239	1275	0	89	981	0	162	375	301	173	411	349
V/C Ratio(X)	0.79	0.47	0.00	0.70	0.56	0.00	0.77	0.36	0.10	0.78	0.78	0.93
Avail Cap(c_a), veh/h	693	1591	0	549	1594	0	422	386	309	317	411	349
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	16.4	0.0	31.1	20.6	0.0	29.5	22.0	20.8	29.3	24.3	25.2
Incr Delay (d2), s/veh	5.6	0.3	0.0	9.3	0.5	0.0	7.5	0.6	0.1	7.5	9.6	29.8
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(-26165%),veh/ln	3.7	4.3	0.0	1.4	4.4	0.0	2.6	2.2	0.5	2.8	6.7	8.7
LnGrp Delay(d),s/veh	33.5	16.7	0.0	40.4	21.1	0.0	37.1	22.6	20.9	36.8	33.9	55.1
LnGrp LOS	C	B		D	C		D	C	C	D	C	E
Approach Vol, veh/h		792			614			291			781	
Approach Delay, s/veh		20.7			23.1			28.6			43.2	
Approach LOS		C			C			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	13.0	23.5	10.1	20.0	7.4	29.0	10.5	19.6				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	26.0	30.0	16.0	15.0	21.0	30.0	12.0	15.0				
Max Q Clear Time (g_c+I1), s	8.8	10.9	6.6	15.6	4.3	10.8	7.0	6.5				
Green Ext Time (p_c), s	0.4	7.6	0.2	0.0	0.1	7.6	0.1	2.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			29.3									
HCM 2010 LOS			C									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

**Intersection**

Int Delay, s/veh 2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	810	130	100	760	50	90
Conflicting Peds, #/hr	0	5	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	5	2
Mvmt Flow	844	135	104	792	52	94



















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	844	1448
Stage 1	-	-	844
Stage 2	-	-	604
Critical Hdwy	-	4.14	6.9
Critical Hdwy Stg 1	-	-	5.9
Critical Hdwy Stg 2	-	-	5.9
Follow-up Hdwy	-	2.22	3.55
Pot Cap-1 Maneuver	-	788	119
Stage 1	-	-	375
Stage 2	-	-	500
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	788	103
Mov Cap-2 Maneuver	-	-	103
Stage 1	-	-	375
Stage 2	-	-	432

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	29.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	288	-	-	788	-
HCM Lane V/C Ratio	0.506	-	-	0.132	-
HCM Control Delay (s)	29.7	-	-	10.3	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	2.7	-	-	0.5	-





















HCM 2010 Signalized Intersection Summary  
 19: J St & Covell Blvd

E+P MRIC Mixed-Use  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	840	130	60	750	0	150	0	90	0	0	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	1863	1855	1900	1743	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	10	875	0	62	781	0	156	0	0	0	0	0
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	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, %	2	2	2	9	2	2	2	2	2	2	2	2
Cap, veh/h	19	1669	0	85	1819	0	214	0	0	0	5	0
Arrive On Green	0.01	0.47	0.00	0.05	0.51	0.00	0.12	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1774	3618	0	1660	3632	0	1774	0	0	0	1863	0
Grp Volume(v), veh/h	10	875	0	62	781	0	156	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1774	1763	0	1660	1770	0	1774	0	0	0	1863	0
Q Serve(g_s), s	0.2	6.4	0.0	1.3	5.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	6.4	0.0	1.3	5.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	19	1669	0	85	1819	0	214	0	0	0	5	0
V/C Ratio(X)	0.53	0.52	0.00	0.73	0.43	0.00	0.73	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	194	3368	0	272	3382	0	1356	0	0	0	1068	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)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	18.0	6.8	0.0	17.1	5.6	0.0	15.5	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	21.5	0.1	0.0	4.5	0.1	0.0	1.8	0.0	0.0	0.0	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(-26165%),veh/ln	0.2	3.1	0.0	0.7	2.4	0.0	1.6	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	39.6	6.9	0.0	21.6	5.6	0.0	17.3	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	D	A		C	A		B					
Approach Vol, veh/h		885			843			156				0
Approach Delay, s/veh		7.2			6.8			17.3				0.0
Approach LOS		A			A			B				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	22.3		0.0	4.4	23.8		8.4				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	6.0	35.0		21.0	4.0	35.0		28.0				
Max Q Clear Time (g_c+I1), s	3.3	8.4		0.0	2.2	7.0		5.1				
Green Ext Time (p_c), s	0.0	9.0		0.0	0.0	9.1		0.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				7.9								
HCM 2010 LOS				A								

HCM 2010 Signalized Intersection Summary  
20: F St & Covell Blvd

E+P MRIC Mixed-Use  
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	670	120	200	630	80	50	90	160	150	210	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		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	1863	1863	1900	1845	1863	1900	1845	1851	1900	1863	1843	1900
Adj Flow Rate, veh/h	42	698	0	208	656	0	52	94	0	156	219	0
Adj No. of Lanes	1	2	0	2	2	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, %	2	2	2	3	2	2	3	2	2	2	2	2
Cap, veh/h	77	1176	0	333	1368	0	88	246	0	211	371	0
Arrive On Green	0.04	0.33	0.00	0.10	0.39	0.00	0.05	0.13	0.00	0.12	0.20	0.00
Sat Flow, veh/h	1774	3632	0	3408	3632	0	1757	1851	0	1774	1843	0
Grp Volume(v), veh/h	42	698	0	208	656	0	52	94	0	156	219	0
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1704	1770	0	1757	1851	0	1774	1843	0
Q Serve(g_s), s	1.2	8.8	0.0	3.1	7.5	0.0	1.5	2.5	0.0	4.5	5.8	0.0
Cycle Q Clear(g_c), s	1.2	8.8	0.0	3.1	7.5	0.0	1.5	2.5	0.0	4.5	5.8	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	77	1176	0	333	1368	0	88	246	0	211	371	0
V/C Ratio(X)	0.55	0.59	0.00	0.62	0.48	0.00	0.59	0.38	0.00	0.74	0.59	0.00
Avail Cap(c_a), veh/h	863	2649	0	1658	2649	0	855	901	0	863	897	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)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.0	14.8	0.0	23.2	12.3	0.0	24.8	21.2	0.0	22.7	19.3	0.0
Incr Delay (d2), s/veh	2.2	0.2	0.0	0.7	0.1	0.0	6.1	1.0	0.0	6.0	1.8	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(-26165%),veh/ln	0.7	4.3	0.0	1.5	3.7	0.0	0.9	1.3	0.0	2.6	3.1	0.0
LnGrp Delay(d),s/veh	27.3	15.0	0.0	23.9	12.4	0.0	30.9	22.1	0.0	28.8	21.1	0.0
LnGrp LOS	C	B		C	B		C	C		C	C	
Approach Vol, veh/h		740			864			146			375	
Approach Delay, s/veh		15.7			15.2			25.3			24.3	
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	9.2	22.8	6.7	14.8	6.3	25.7	10.4	11.1				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	26.0	40.0	26.0	26.0	26.0	40.0	26.0	26.0				
Max Q Clear Time (g_c+I1), s	5.1	10.8	3.5	7.8	3.2	9.5	6.5	4.5				
Green Ext Time (p_c), s	0.3	7.0	0.1	2.0	0.0	7.0	0.5	2.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			17.7									
HCM 2010 LOS			B									

Intersection												
Intersection Delay, s/veh	10.9											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	80	70	30	0	50	140	10	0	90	120	40
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	83	73	31	0	52	146	10	0	94	125	42
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	10.4	11	10.8
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	75%	0%	70%	0%	93%	0%	43%
Vol Right, %	0%	25%	0%	30%	0%	7%	0%	57%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	160	80	100	50	150	10	210
LT Vol	90	0	80	0	50	0	10	0
Through Vol	0	120	0	70	0	140	0	90
RT Vol	0	40	0	30	0	10	0	120
Lane Flow Rate	94	167	83	104	52	156	10	219
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.171	0.273	0.157	0.176	0.098	0.269	0.019	0.348
Departure Headway (Hd)	6.576	5.892	6.787	6.067	6.75	6.196	6.64	5.728
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	545	608	528	591	530	580	538	626
Service Time	4.323	3.639	4.536	3.815	4.497	3.943	4.388	3.475
HCM Lane V/C Ratio	0.172	0.275	0.157	0.176	0.098	0.269	0.019	0.35
HCM Control Delay	10.7	10.9	10.8	10.1	10.2	11.2	9.5	11.5
HCM Lane LOS	B	B	B	B	B	B	A	B
HCM 95th-tile Q	0.6	1.1	0.6	0.6	0.3	1.1	0.1	1.6

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	10	90	120
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	10	94	125
Number of Lanes	0	1	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	11.4
HCM LOS	B

**Lane**

Intersection												
Int Delay, s/veh	2.7											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	0	30	10	10	10	50	140	10	10	250	100
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	175	-	-	-	150	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	0	31	10	10	10	52	146	10	10	260	104

























Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	601	595	317	606	642	151	367	0	0	156	0	0
Stage 1	335	335	-	255	255	-	-	-	-	-	-	-
Stage 2	266	260	-	351	387	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	412	417	724	409	392	895	1192	-	-	1424	-	-
Stage 1	679	643	-	749	696	-	-	-	-	-	-	-
Stage 2	739	693	-	666	610	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	383	395	722	376	372	895	1190	-	-	1424	-	-
Mov Cap-2 Maneuver	383	395	-	376	372	-	-	-	-	-	-	-
Stage 1	648	637	-	716	666	-	-	-	-	-	-	-
Stage 2	688	663	-	632	605	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.2	13.3	2	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1190	-	-	383	722	464	1424	-	-
HCM Lane V/C Ratio	0.044	-	-	0.109	0.043	0.067	0.007	-	-
HCM Control Delay (s)	8.2	-	-	15.5	10.2	13.3	7.5	-	-
HCM Lane LOS	A	-	-	C	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.1	0.2	0	-	-

HCM 2010 Signalized Intersection Summary  
 34: Cowell Blvd & Pole Line Rd/Lillard Dr

























E+P MRIC Mixed-Use  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	180	200	210	180	70	110	50	140	20	110	180
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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	115	188	0	219	188	0	115	52	0	21	115	0
Adj No. of Lanes	1	1	1	1	2	1	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	369	314	209	831	372	144	355	302	38	243	207
Arrive On Green	0.08	0.20	0.00	0.12	0.23	0.00	0.08	0.19	0.00	0.02	0.13	0.00
Sat Flow, veh/h	1774	1863	1583	1774	3539	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	115	188	0	219	188	0	115	52	0	21	115	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1770	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.2	3.0	0.0	4.0	1.5	0.0	2.2	0.8	0.0	0.4	1.9	0.0
Cycle Q Clear(g_c), s	2.2	3.0	0.0	4.0	1.5	0.0	2.2	0.8	0.0	0.4	1.9	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	144	369	314	209	831	372	144	355	302	38	243	207
V/C Ratio(X)	0.80	0.51	0.00	1.05	0.23	0.00	0.80	0.15	0.00	0.56	0.47	0.00
Avail Cap(c_a), veh/h	209	880	748	209	1254	561	209	770	654	209	770	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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.3	12.1	0.0	14.9	10.5	0.0	15.3	11.4	0.0	16.4	13.6	0.0
Incr Delay (d2), s/veh	12.8	0.4	0.0	74.6	0.1	0.0	12.8	0.1	0.0	12.4	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(-26165%),veh/ln	1.5	1.6	0.0	6.2	0.7	0.0	1.5	0.4	0.0	0.3	1.0	0.0
LnGrp Delay(d),s/veh	28.0	12.5	0.0	89.6	10.5	0.0	28.0	11.5	0.0	28.8	14.2	0.0
LnGrp LOS	C	B		F	B		C	B		C	B	
Approach Vol, veh/h		303			407			167			136	
Approach Delay, s/veh		18.4			53.1			22.9			16.4	
Approach LOS		B			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	4.7	10.5	8.0	10.7	6.7	8.4	6.7	12.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	14.0	4.0	16.0	4.0	14.0	4.0	12.0				
Max Q Clear Time (g_c+I1), s	2.4	2.8	6.0	5.0	4.2	3.9	4.2	3.5				
Green Ext Time (p_c), s	0.0	0.4	0.0	1.2	0.0	0.4	0.0	1.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			32.8									
HCM 2010 LOS			C									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												



HCM 2010 Signalized Intersection Summary  
 35: Valdora St & Cowell Blvd

E+P MRIC Mixed-Use  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	240	20	20	470	30	70	10	40	10	10	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		0.94	1.00		0.97	1.00		0.90	1.00		0.46
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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	62	250	21	21	490	31	73	10	42	10	10	73
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	721	577	37	667	549	97	339	258	19	13	96
Arrive On Green	0.05	0.39	0.39	0.02	0.36	0.36	0.05	0.18	0.18	0.01	0.14	0.14
Sat Flow, veh/h	1774	1863	1492	1774	1863	1533	1774	1863	1420	1774	96	698
Grp Volume(v), veh/h	62	250	21	21	490	31	73	10	42	10	0	83
Grp Sat Flow(s),veh/h/ln	1774	1863	1492	1774	1863	1533	1774	1863	1420	1774	0	794
Q Serve(g_s), s	1.4	3.9	0.4	0.5	9.5	0.5	1.7	0.2	1.0	0.2	0.0	4.2
Cycle Q Clear(g_c), s	1.4	3.9	0.4	0.5	9.5	0.5	1.7	0.2	1.0	0.2	0.0	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.88
Lane Grp Cap(c), veh/h	87	721	577	37	667	549	97	339	258	19	0	109
V/C Ratio(X)	0.71	0.35	0.04	0.57	0.73	0.06	0.75	0.03	0.16	0.54	0.00	0.76
Avail Cap(c_a), veh/h	172	1377	1103	172	1377	1133	172	339	258	172	0	115
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	0.00	1.00
Uniform Delay (d), s/veh	19.3	9.0	7.9	20.0	11.5	8.7	19.2	13.9	14.2	20.3	0.0	17.1
Incr Delay (d2), s/veh	10.0	0.1	0.0	13.2	0.6	0.0	10.9	0.0	0.1	21.9	0.0	21.1
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(-26165%),veh/ln	0.9	2.0	0.1	0.4	4.9	0.2	1.1	0.1	0.4	0.2	0.0	1.5
LnGrp Delay(d),s/veh	29.4	9.1	7.9	33.2	12.1	8.7	30.1	13.9	14.3	42.2	0.0	38.2
LnGrp LOS	C	A	A	C	B	A	C	B	B	D		D
Approach Vol, veh/h		333			542			125				93
Approach Delay, s/veh		12.8			12.7			23.5				38.6
Approach LOS		B			B			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	4.9	20.5	6.3	9.7	6.0	19.3	4.4	11.5				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	4.0	30.5	4.0	6.0	4.0	30.5	4.0	6.0				
Max Q Clear Time (g_c+I1), s	2.5	5.9	3.7	6.2	3.4	11.5	2.2	3.0				
Green Ext Time (p_c), s	0.0	3.2	0.0	0.0	0.0	3.1	0.0	0.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			16.2									
HCM 2010 LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												























HCM 2010 Signalized Intersection Summary  
 36: Drew Ave & Cowell Blvd

E+P MRIC Mixed-Use  
 AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	340	20	10	530	80	80	10	20	10	0	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		0.97	1.00		0.97	1.00		0.87	1.00		0.46
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	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	104	354	21	10	552	83	83	10	21	10	0	21
Adj No. of Lanes	1	1	0	1	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	878	52	23	823	682	116	77	161	23	195	77
Arrive On Green	0.08	0.51	0.51	0.01	0.44	0.44	0.07	0.16	0.16	0.01	0.00	0.10
Sat Flow, veh/h	1774	1738	103	1774	1863	1543	1774	487	1022	1774	1863	732
Grp Volume(v), veh/h	104	0	375	10	552	83	83	0	31	10	0	21
Grp Sat Flow(s),veh/h/ln	1774	0	1841	1774	1863	1543	1774	0	1509	1774	1863	732
Q Serve(g_s), s	3.1	0.0	6.9	0.3	12.8	1.7	2.5	0.0	1.0	0.3	0.0	1.4
Cycle Q Clear(g_c), s	3.1	0.0	6.9	0.3	12.8	1.7	2.5	0.0	1.0	0.3	0.0	1.4
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.68	1.00		1.00
Lane Grp Cap(c), veh/h	135	0	930	23	823	682	116	0	238	23	195	77
V/C Ratio(X)	0.77	0.00	0.40	0.44	0.67	0.12	0.71	0.00	0.13	0.44	0.00	0.27
Avail Cap(c_a), veh/h	357	0	1011	260	1024	848	260	0	238	260	273	107
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.7	0.0	8.4	26.7	12.1	9.0	25.0	0.0	19.8	26.7	0.0	22.5
Incr Delay (d2), s/veh	8.8	0.0	0.6	12.6	2.2	0.2	7.8	0.0	0.5	12.6	0.0	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(-26165%),veh/ln	1.9	0.0	3.6	0.2	6.9	0.8	1.5	0.0	0.4	0.2	0.0	0.3
LnGrp Delay(d),s/veh	33.6	0.0	9.0	39.3	14.3	9.2	32.9	0.0	20.3	39.3	0.0	24.4
LnGrp LOS	C		A	D	B	A	C		C	D		C
Approach Vol, veh/h		479			645			114				31
Approach Delay, s/veh		14.3			14.0			29.4				29.2
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	4.7	32.6	7.6	9.7	8.2	29.1	4.7	12.6				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	8.0	30.0	8.0	8.0	11.0	30.0	8.0	8.0				
Max Q Clear Time (g_c+I1), s	2.3	8.9	4.5	3.4	5.1	14.8	2.3	3.0				
Green Ext Time (p_c), s	0.0	11.7	0.0	0.0	0.1	9.3	0.0	0.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			15.9									
HCM 2010 LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary  
 37: Research Park Dr & Cowell Blvd

E+P MRIC Mixed-Use  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	180	450	160	60	560	30	60	10	40	20	30	120
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		0.86	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	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	188	469	167	62	583	0	62	10	42	21	31	125
Adj No. of Lanes	1	1	1	1	2	0	2	2	0	1	2	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	1171	977	90	1971	0	125	279	214	37	252	217
Arrive On Green	0.12	0.63	0.63	0.05	0.56	0.00	0.04	0.16	0.16	0.02	0.14	0.14
Sat Flow, veh/h	1774	1863	1553	1774	3632	0	3442	1770	1359	1774	1770	1524
Grp Volume(v), veh/h	188	469	167	62	583	0	62	10	42	21	31	125
Grp Sat Flow(s),veh/h/ln	1774	1863	1553	1774	1770	0	1721	1770	1359	1774	1770	1524
Q Serve(g_s), s	12.5	15.0	5.4	4.1	10.5	0.0	2.1	0.6	3.2	1.4	1.8	9.2
Cycle Q Clear(g_c), s	12.5	15.0	5.4	4.1	10.5	0.0	2.1	0.6	3.2	1.4	1.8	9.2
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	1171	977	90	1971	0	125	279	214	37	252	217
V/C Ratio(X)	0.86	0.40	0.17	0.69	0.30	0.00	0.50	0.04	0.20	0.56	0.12	0.58
Avail Cap(c_a), veh/h	325	1171	977	251	1971	0	574	457	351	296	457	394
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)	0.82	0.82	0.82	0.86	0.86	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	11.1	9.3	56.0	14.1	0.0	56.7	42.8	43.9	58.2	44.9	48.1
Incr Delay (d2), s/veh	12.1	0.8	0.3	7.7	0.3	0.0	3.0	0.1	0.4	12.7	0.2	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(-26165%),veh/ln	6.8	8.0	2.4	2.2	5.2	0.0	1.1	0.3	1.2	0.8	0.9	4.0
LnGrp Delay(d),s/veh	63.7	11.9	9.6	63.7	14.4	0.0	59.7	42.9	44.4	70.9	45.2	50.5
LnGrp LOS	E	B	A	E	B		E	D	D	E	D	D
Approach Vol, veh/h		824			645			114			177	
Approach Delay, s/veh		23.2			19.2			52.6			52.0	
Approach LOS		C			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	10.1	80.5	8.4	21.1	18.7	71.8	6.5	22.9				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	17.0	35.0	20.0	31.0	22.0	30.0	20.0	31.0				
Max Q Clear Time (g_c+I1), s	6.1	17.0	4.1	11.2	14.5	12.5	3.4	5.2				
Green Ext Time (p_c), s	0.1	7.4	0.1	1.3	0.3	7.3	0.0	1.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			26.5									
HCM 2010 LOS			C									

**Intersection**

Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	90	130	0	90	160	0	180	60
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	94	135	0	94	167	0	188	63
Number of Lanes	0	1	1	0	1	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	8.8	9.9	10.9
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	75%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%
Vol Right, %	25%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	240	90	130	90	160
LT Vol	180	0	0	90	0
Through Vol	0	90	0	0	160
RT Vol	60	0	130	0	0
Lane Flow Rate	250	94	135	94	167
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.352	0.143	0.18	0.154	0.251
Departure Headway (Hd)	5.07	5.484	4.777	5.925	5.42
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	705	649	743	602	658
Service Time	3.133	3.26	2.552	3.699	3.194
HCM Lane V/C Ratio	0.355	0.145	0.182	0.156	0.254
HCM Control Delay	10.9	9.2	8.6	9.8	10
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1.6	0.5	0.7	0.5	1

**Intersection**

Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	130	50	10	0	0	120	20	0	10	10	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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	135	52	10	0	0	125	21	0	10	10	0
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	9.3	9.1	8.7
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	83%	100%	86%	0%	7%
Vol Right, %	0%	0%	0%	17%	0%	14%	0%	93%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	10	130	60	0	140	10	140
LT Vol	10	0	130	0	0	0	10	0
Through Vol	0	10	0	50	0	120	0	10
RT Vol	0	0	0	10	0	20	0	130
Lane Flow Rate	10	10	135	62	0	146	10	146
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.018	0.016	0.211	0.087	0	0.205	0.017	0.194
Departure Headway (Hd)	6.101	5.596	5.607	4.987	5.173	5.072	5.955	4.796
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	585	638	639	718	0	706	601	747
Service Time	3.851	3.346	3.345	2.726	2.914	2.813	3.692	2.532
HCM Lane V/C Ratio	0.017	0.016	0.211	0.086	0	0.207	0.017	0.195
HCM Control Delay	9	8.4	9.8	8.2	7.9	9.1	8.8	8.7
HCM Lane LOS	A	A	A	A	N	A	A	A
HCM 95th-tile Q	0.1	0	0.8	0.3	0	0.8	0.1	0.7

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	10	10	130
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	10	10	135
Number of Lanes	0	1	1	0

























**Approach**

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

**Lane**
























HCM 2010 Signalized Intersection Summary  
40: Pole Line Rd & E 5th St

E+P MRIC Mixed-Use  
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Volume (veh/h)	30	100	130	110	180	70	160	250	140	160	310	150
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	1776	1815	1900	1810	1832	1900	1863	1863	1900	1863	1863	1827
Adj Flow Rate, veh/h	31	104	0	115	188	0	167	260	0	167	323	0
Adj No. of Lanes	1	2	0	1	2	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, %	7	3	3	5	4	4	2	2	2	2	2	4
Cap, veh/h	37	418	0	146	557	0	222	483	0	222	483	403
Arrive On Green	0.02	0.12	0.00	0.08	0.16	0.00	0.13	0.26	0.00	0.13	0.26	0.00
Sat Flow, veh/h	1691	3539	0	1723	3572	0	1774	1863	0	1774	1863	1553
Grp Volume(v), veh/h	31	104	0	115	188	0	167	260	0	167	323	0
Grp Sat Flow(s),veh/h/ln	1691	1724	0	1723	1740	0	1774	1863	0	1774	1863	1553
Q Serve(g_s), s	0.8	1.1	0.0	2.7	2.0	0.0	3.8	5.0	0.0	3.8	6.4	0.0
Cycle Q Clear(g_c), s	0.8	1.1	0.0	2.7	2.0	0.0	3.8	5.0	0.0	3.8	6.4	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	37	418	0	146	557	0	222	483	0	222	483	403
V/C Ratio(X)	0.84	0.25	0.00	0.79	0.34	0.00	0.75	0.54	0.00	0.75	0.67	0.00
Avail Cap(c_a), veh/h	407	2159	0	457	2096	0	684	942	0	684	942	785
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.2	16.5	0.0	18.6	15.5	0.0	17.5	13.2	0.0	17.5	13.8	0.0
Incr Delay (d2), s/veh	17.1	0.1	0.0	3.5	0.1	0.0	5.1	0.3	0.0	5.1	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(-26165%),veh/ln	0.5	0.5	0.0	1.4	1.0	0.0	2.2	2.6	0.0	2.2	3.4	0.0
LnGrp Delay(d),s/veh	37.3	16.6	0.0	22.2	15.6	0.0	22.6	13.6	0.0	22.6	14.4	0.0
LnGrp LOS	D	B		C	B		C	B		C	B	
Approach Vol, veh/h		135			303			427			490	
Approach Delay, s/veh		21.4			18.1			17.1			17.2	
Approach LOS		C			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	7.5	10.0	9.2	14.8	5.9	11.6	9.2	14.8				
Change Period (Y+Rc), s	4.0	* 5	4.0	4.0	5.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	* 26	16.0	21.0	10.0	25.0	16.0	21.0				
Max Q Clear Time (g_c+I1), s	4.7	3.1	5.8	8.4	2.8	4.0	5.8	7.0				
Green Ext Time (p_c), s	0.1	1.3	0.3	2.0	0.0	1.3	0.3	2.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				17.8								
HCM 2010 LOS				B								
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 2010 Signalized Intersection Summary  
41: L St & E 5th St



















E+P MRIC Mixed-Use  
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	180	70	50	340	50	60	70	40	70	150	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		0.97	1.00		0.92	1.00		0.83	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	1863	1787	1900	1727	1863	1863	1863	1863	1667	1863	1863	1863
Adj Flow Rate, veh/h	42	188	73	52	354	52	62	73	42	73	156	73
Adj No. of Lanes	1	1	0	1	1	1	1	1	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, %	2	8	8	10	2	2	2	2	14	2	2	2
Cap, veh/h	84	335	130	92	529	412	113	280	177	127	295	238
Arrive On Green	0.05	0.28	0.28	0.06	0.28	0.28	0.06	0.15	0.15	0.07	0.16	0.16
Sat Flow, veh/h	1774	1216	472	1645	1863	1450	1774	1863	1178	1774	1863	1505
Grp Volume(v), veh/h	42	0	261	52	354	52	62	73	42	73	156	73
Grp Sat Flow(s),veh/h/ln	1774	0	1688	1645	1863	1450	1774	1863	1178	1774	1863	1505
Q Serve(g_s), s	0.9	0.0	4.9	1.1	6.2	1.0	1.3	1.3	1.2	1.5	2.8	1.6
Cycle Q Clear(g_c), s	0.9	0.0	4.9	1.1	6.2	1.0	1.3	1.3	1.2	1.5	2.8	1.6
Prop In Lane	1.00		0.28	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	84	0	465	92	529	412	113	280	177	127	295	238
V/C Ratio(X)	0.50	0.00	0.56	0.56	0.67	0.13	0.55	0.26	0.24	0.58	0.53	0.31
Avail Cap(c_a), veh/h	384	0	1393	356	1034	804	384	1311	829	384	807	652
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	17.2	0.0	11.5	17.0	11.7	9.8	16.8	13.9	13.8	16.6	14.3	13.8
Incr Delay (d2), s/veh	1.7	0.0	0.4	2.0	0.5	0.1	1.5	0.2	0.3	1.5	0.5	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(-26165%),veh/ln	0.5	0.0	2.3	0.6	3.2	0.4	0.7	0.7	0.4	0.8	1.5	0.7
LnGrp Delay(d),s/veh	18.9	0.0	11.9	19.0	12.2	9.9	18.3	14.1	14.1	18.2	14.8	14.0
LnGrp LOS	B		B	B	B	A	B	B	B	B	B	B
Approach Vol, veh/h		303			458			177			302	
Approach Delay, s/veh		12.8			12.7			15.6			15.4	
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	6.1	14.7	6.4	9.8	5.8	15.0	6.6	9.6				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	8.0	30.5	8.0	16.0	8.0	20.5	8.0	26.0				
Max Q Clear Time (g_c+I1), s	3.1	6.9	3.3	4.8	2.9	8.2	3.5	3.3				
Green Ext Time (p_c), s	0.0	2.6	0.0	0.9	0.0	2.2	0.0	1.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			13.8									
HCM 2010 LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												



HCM 2010 Signalized Intersection Summary  
57: Pole Line Rd & Bike Dummy/Loyola Dr

E+P MRIC Mixed-Use  
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	100	0	90	0	260	40	90	370	0
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		0.87	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	1863	0	1863	0	1863	0	1842	1900	1810	1845	0
Adj Flow Rate, veh/h	0	0	0	104	0	94	0	271	42	94	385	0
Adj No. of Lanes	0	1	0	1	0	1	0	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, %	0	2	0	2	0	2	0	3	3	5	3	0
Cap, veh/h	0	6	0	130	0	0	0	699	108	120	1198	0
Arrive On Green	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.46	0.46	0.07	0.65	0.00
Sat Flow, veh/h	0	-55882	0	1774	104		0	1523	236	1723	1845	0
Grp Volume(v), veh/h	0	0	0	104	19.5		0	0	313	94	385	0
Grp Sat Flow(s),veh/h/ln	0	1863	0	1774	B		0	0	1759	1723	1845	0
Q Serve(g_s), s	0.0	0.0	0.0	1.9			0.0	0.0	3.9	1.8	3.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.9			0.0	0.0	3.9	1.8	3.1	0.0
Prop In Lane	0.00		0.00	1.00			0.00		0.13	1.00		0.00
Lane Grp Cap(c), veh/h	0	6	0	130			0	0	808	120	1198	0
V/C Ratio(X)	0.00	0.00	0.00	0.80			0.00	0.00	0.39	0.78	0.32	0.00
Avail Cap(c_a), veh/h	0	393	0	310			0	0	1326	208	1390	0
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)	0.00	0.00	0.00	1.00			0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	15.1			0.0	0.0	5.9	15.2	2.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.3			0.0	0.0	0.1	4.1	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
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.0	1.1			0.0	0.0	1.9	1.0	1.5	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	19.5			0.0	0.0	6.0	19.3	2.6	0.0
LnGrp LOS				B					A	B	A	
Approach Vol, veh/h		0						313			479	
Approach Delay, s/veh		0.0						6.0			5.9	
Approach LOS								A			A	
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>				
Assigned Phs	1	2	3	4		6						
Phs Duration (G+Y+Rc), s	6.3	20.2	6.6	0.0		26.5						
Change Period (Y+Rc), s	4.0	5.0	* 4.2	3.0		5.0						
Max Green Setting (Gmax), s	4.0	25.0	* 5.8	7.0		25.0						
Max Q Clear Time (g_c+I1), s	3.8	5.9	3.9	0.0		5.1						
Green Ext Time (p_c), s	0.0	2.9	0.0	0.0		2.9						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			7.5									
HCM 2010 LOS			A									
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

**Intersection**

Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	20	10	20	0	10	20	10	0	10	90	10
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	21	10	21	0	10	21	10	0	10	94	10
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	7.7	7.7	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	40%	25%	7%
Vol Thru, %	82%	20%	50%	71%
Vol Right, %	9%	40%	25%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	50	40	140
LT Vol	10	20	10	10
Through Vol	90	10	20	100
RT Vol	10	20	10	30
Lane Flow Rate	115	52	42	146
Geometry Grp	1	1	1	1
Degree of Util (X)	0.133	0.064	0.052	0.165
Departure Headway (Hd)	4.172	4.391	4.464	4.07
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	844	820	807	868
Service Time	2.269	2.393	2.465	2.162
HCM Lane V/C Ratio	0.136	0.063	0.052	0.168
HCM Control Delay	7.9	7.7	7.7	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.2	0.2	0.6

**Intersection**

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	10	100	30
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	3
Mvmt Flow	0	10	104	31
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 8

HCM LOS A

**Lane**

**Intersection**

Int Delay, s/veh 1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	70	30	310	410	20
Conflicting Peds, #/hr	0	7	0	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	4	3	6	3	4
Mvmt Flow	10	73	31	323	427	21

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	830	445	455 0
Stage 1	445	-	- -
Stage 2	385	-	- -
Critical Hdwy	6.42	6.24	4.13 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.336	2.227 -
Pot Cap-1 Maneuver	340	609	1100 -
Stage 1	646	-	- -
Stage 2	688	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	327	605	1100 -
Mov Cap-2 Maneuver	447	-	- -
Stage 1	642	-	- -
Stage 2	665	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1100	-	579	-	-
HCM Lane V/C Ratio	0.028	-	0.144	-	-
HCM Control Delay (s)	8.4	-	12.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

**Intersection**

Int Delay, s/veh 4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	50	150	90	140	190	70
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	50	-	-	-	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	156	94	146	198	73

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	531	198	0
Stage 1	198	-	-
Stage 2	333	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	509	843	1375
Stage 1	835	-	-
Stage 2	726	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	471	843	1375
Mov Cap-2 Maneuver	471	-	-
Stage 1	835	-	-
Stage 2	672	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	3.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1375	-	471	843	-	-
HCM Lane V/C Ratio	0.068	-	0.111	0.185	-	-
HCM Control Delay (s)	7.8	0	13.6	10.2	-	-
HCM Lane LOS	A	A	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	0.7	-	-

**Intersection**

Int Delay, s/veh 5.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	80	120	30	50	10
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	83	125	31	52	10

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	338	57	63
Stage 1	57	-	-
Stage 2	281	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	658	1009	1540
Stage 1	966	-	-
Stage 2	767	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	603	1009	1540
Mov Cap-2 Maneuver	603	-	-
Stage 1	966	-	-
Stage 2	703	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1540	-	939	-	-
HCM Lane V/C Ratio	0.081	-	0.1	-	-
HCM Control Delay (s)	7.5	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.3	-	-

**Intersection**

Int Delay, s/veh 6.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	120	0	10	10	150	60
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	125	0	10	10	156	62

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	125
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1462
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1462
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.7	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	855	-	-	1462	-
HCM Lane V/C Ratio	0.256	-	-	0.007	-
HCM Control Delay (s)	10.7	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0	-

**Intersection**

Int Delay, s/veh 3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	160	10	50	140	0	10
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	167	10	52	146	0	10

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	198	0	469
Stage 1	-	-	125
Stage 2	-	-	344
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1375	-	553
Stage 1	-	-	901
Stage 2	-	-	718
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1375	-	486
Mov Cap-2 Maneuver	-	-	486
Stage 1	-	-	901
Stage 2	-	-	630

Approach	EB	WB	SB
HCM Control Delay, s	7.5	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1375	-	-	-	926
HCM Lane V/C Ratio	0.121	-	-	-	0.011
HCM Control Delay (s)	8	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.4	-	-	-	0



Intersection			
Intersection Delay, s/veh	17.8		
Intersection LOS	C		
Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	812	187	188
Demand Flow Rate, veh/h	829	191	192
Vehicles Circulating, veh/h	127	340	53
Vehicles Exiting, veh/h	117	616	478
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	23.2	7.2	5.1
Approach LOS	C	A	A
Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	829	191	192
Cap Entry Lane, veh/h	995	804	1072
Entry HV Adj Factor	0.980	0.979	0.979
Flow Entry, veh/h	812	187	188
Cap Entry, veh/h	975	787	1049
V/C Ratio	0.833	0.237	0.179
Control Delay, s/veh	23.2	7.2	5.1
LOS	C	A	A
95th %tile Queue, veh	10	1	1

Intersection													
Int Delay, s/veh	7.3												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	40	10	450	30	330	0	0	70	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	75	-	-	-	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	42	10	469	31	344	0	0	73	42

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	442	479	172	73	0	0	344	0	0
Stage 1	406	406	-	-	-	-	-	-	-
Stage 2	36	73	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	544	484	842	1525	-	-	1212	-	-
Stage 1	641	596	-	-	-	-	-	-	-
Stage 2	982	833	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	533	0	842	1525	-	-	1212	-	-
Mov Cap-2 Maneuver	533	0	-	-	-	-	-	-	-
Stage 1	628	0	-	-	-	-	-	-	-
Stage 2	982	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.8	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1525	-	-	533	873	1212	-	-
HCM Lane V/C Ratio	0.02	-	-	0.088	0.543	-	-	-
HCM Control Delay (s)	7.4	-	-	12.4	13.9	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	3.3	0	-	-

Intersection												
Int Delay, s/veh	8.7											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	300	0	50	0	0	0	0	60	20	40	70	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	325	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	312	0	52	0	0	0	0	62	21	42	73	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	229	239	36	73	0	0	83	0	0
Stage 1	156	156	-	-	-	-	-	-	-
Stage 2	73	83	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.93	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	5.83	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	2.22	-	-	2.218	-	-
Pot Cap-1 Maneuver	749	662	1029	1525	-	-	1514	-	-
Stage 1	857	768	-	-	-	-	-	-	-
Stage 2	949	826	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	728	0	1029	1525	-	-	1514	-	-
Mov Cap-2 Maneuver	728	0	-	-	-	-	-	-	-
Stage 1	833	0	-	-	-	-	-	-	-
Stage 2	949	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0	2.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1525	-	-	728	4116	1514	-	-
HCM Lane V/C Ratio	-	-	-	0.429	0.013	0.028	-	-
HCM Control Delay (s)	0	-	-	13.6	5.9	7.4	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	2.2	0	0.1	-	-

**Intersection**

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	20	480	80	0	700
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	522	87	0	761

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1326	565	0	0	609	0
Stage 1	565	-	-	-	-	-
Stage 2	761	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	172	524	-	-	970	-
Stage 1	569	-	-	-	-	-
Stage 2	461	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	172	524	-	-	970	-
Mov Cap-2 Maneuver	172	-	-	-	-	-
Stage 1	569	-	-	-	-	-
Stage 2	461	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	524	970	-
HCM Lane V/C Ratio	-	-	0.041	-	-
HCM Control Delay (s)	-	-	12.2	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection												
Int Delay, s/veh	3.4											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	110	140	60	20	90	30	20	0	10	10	0	20
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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	120	152	65	22	98	33	22	0	11	11	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	217	0	0	592	598	185	587	615	114
Stage 1	-	-	-	-	-	-	424	424	-	158	158	-
Stage 2	-	-	-	-	-	-	168	174	-	429	457	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1455	-	-	1353	-	-	418	416	857	421	407	939
Stage 1	-	-	-	-	-	-	608	587	-	844	767	-
Stage 2	-	-	-	-	-	-	834	755	-	604	568	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1455	-	-	1353	-	-	378	375	857	385	367	939
Mov Cap-2 Maneuver	-	-	-	-	-	-	378	375	-	385	367	-
Stage 1	-	-	-	-	-	-	558	539	-	774	755	-
Stage 2	-	-	-	-	-	-	801	743	-	547	521	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.7	1.1	13.3	11
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	465	1455	-	-	1353	-	-	635
HCM Lane V/C Ratio	0.07	0.082	-	-	0.016	-	-	0.051
HCM Control Delay (s)	13.3	7.7	-	-	7.7	-	-	11
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.3	-	-	0	-	-	0.2

**Intersection**

Int Delay, s/veh 2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	70	90	120	30	20	20
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	98	130	33	22	22

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	163	0	397
Stage 1	-	-	147
Stage 2	-	-	250
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1416	-	900
Stage 1	-	-	880
Stage 2	-	-	792
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1416	-	900
Mov Cap-2 Maneuver	-	-	575
Stage 1	-	-	880
Stage 2	-	-	749

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1416	-	-	-	575	900
HCM Lane V/C Ratio	0.054	-	-	-	0.038	0.024
HCM Control Delay (s)	7.7	-	-	-	11.5	9.1
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	0.1

**Intersection**

Int Delay, s/veh 3.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	60	30	390	110	110	640
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	-	-	-	75	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	33	424	120	120	696

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1419	484	0
Stage 1	484	-	-
Stage 2	935	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	151	583	1026
Stage 1	620	-	-
Stage 2	382	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	133	583	1026
Mov Cap-2 Maneuver	133	-	-
Stage 1	620	-	-
Stage 2	337	-	-

Approach	WB	NB	SB
HCM Control Delay, s	47	0	1.3
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	179	1026
HCM Lane V/C Ratio	-	-	0.547	0.117
HCM Control Delay (s)	-	-	47	9
HCM Lane LOS	-	-	E	A
HCM 95th %tile Q(veh)	-	-	2.8	0.4

Intersection												
Intersection Delay, s/veh	9.2											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	30	10	0	0	10	10	80	0	10	210	10
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	32	11	0	0	11	11	85	0	11	223	11
Number of Lanes	0	0	1	0	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	9.7	9.2	9.2
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	75%	10%	100%	0%	0%
Vol Thru, %	0%	100%	88%	25%	10%	0%	100%	70%
Vol Right, %	0%	0%	12%	0%	80%	0%	0%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	140	80	40	100	90	140	100
LT Vol	10	0	0	30	10	90	0	0
Through Vol	0	140	70	10	10	0	140	70
RT Vol	0	0	10	0	80	0	0	30
Lane Flow Rate	11	149	85	43	106	96	149	106
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.017	0.22	0.123	0.075	0.16	0.152	0.215	0.147
Departure Headway (Hd)	5.81	5.306	5.218	6.368	5.399	5.698	5.195	4.983
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	613	673	683	559	660	627	688	716
Service Time	3.574	3.07	2.981	4.149	3.169	3.457	2.954	2.742
HCM Lane V/C Ratio	0.018	0.221	0.124	0.077	0.161	0.153	0.217	0.148
HCM Control Delay	8.7	9.6	8.7	9.7	9.2	9.5	9.4	8.6
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.4	0.2	0.6	0.5	0.8	0.5



**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	90	210	30
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	96	223	32
Number of Lanes	0	1	2	0





















**Approach** SB

Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.2
HCM LOS	A

**Lane**

HCM 2010 Signalized Intersection Summary  
2: Mace Blvd & Cowell Blvd

E+P MRIC Mixed-Use  
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	90	40	30	70	110	20	280	20	140	260	120
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	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	117	96	0	32	74	0	21	298	0	149	277	0
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	364	0	67	260	0	46	750	0	195	1047	0
Arrive On Green	0.09	0.20	0.00	0.04	0.14	0.00	0.03	0.21	0.00	0.11	0.30	0.00
Sat Flow, veh/h	1774	1863	0	1774	1863	0	1774	3632	0	1774	3632	0
Grp Volume(v), veh/h	117	96	0	32	74	0	21	298	0	149	277	0
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	0	1774	1770	0	1774	1770	0
Q Serve(g_s), s	2.4	1.7	0.0	0.7	1.4	0.0	0.4	2.8	0.0	3.1	2.3	0.0
Cycle Q Clear(g_c), s	2.4	1.7	0.0	0.7	1.4	0.0	0.4	2.8	0.0	3.1	2.3	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	165	364	0	67	260	0	46	750	0	195	1047	0
V/C Ratio(X)	0.71	0.26	0.00	0.48	0.28	0.00	0.45	0.40	0.00	0.76	0.26	0.00
Avail Cap(c_a), veh/h	511	537	0	511	537	0	511	1854	0	511	1854	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)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.8	13.0	0.0	18.0	14.7	0.0	18.3	12.9	0.0	16.5	10.3	0.0
Incr Delay (d2), s/veh	5.5	0.4	0.0	5.2	0.6	0.0	6.8	0.3	0.0	6.1	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(-26165%),veh/ln	1.5	0.9	0.0	0.4	0.7	0.0	0.3	1.4	0.0	1.9	1.1	0.0
LnGrp Delay(d),s/veh	22.3	13.4	0.0	23.2	15.3	0.0	25.1	13.3	0.0	22.6	10.4	0.0
LnGrp LOS	C	B		C	B		C	B		C	B	
Approach Vol, veh/h		213			106			319			426	
Approach Delay, s/veh		18.3			17.7			14.1			14.7	
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	8.2	13.1	5.4	11.5	5.0	16.3	7.6	9.3				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	20.0	11.0	11.0	11.0	20.0	11.0	11.0				
Max Q Clear Time (g_c+I1), s	5.1	4.8	2.7	3.7	2.4	4.3	4.4	3.4				
Green Ext Time (p_c), s	0.2	3.1	0.0	0.5	0.0	3.1	0.1	0.5				

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  
 7: 2nd St & Target/Faraday Ave

E+P MRIC Mixed-Use  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	190	10	80	20	10	30	100	640	10	30	330	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		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	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	207	11	87	22	11	33	109	696	11	33	359	163
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	35	278	46	29	87	145	1514	24	65	707	601
Arrive On Green	0.15	0.19	0.19	0.03	0.07	0.07	0.08	0.42	0.42	0.04	0.38	0.38
Sat Flow, veh/h	1774	181	1430	1774	411	1234	1774	3566	56	1774	1863	1583
Grp Volume(v), veh/h	207	0	98	22	0	44	109	345	362	33	359	163
Grp Sat Flow(s),veh/h/ln	1774	0	1610	1774	0	1645	1774	1770	1853	1774	1863	1583
Q Serve(g_s), s	5.8	0.0	2.7	0.6	0.0	1.3	3.1	7.2	7.2	0.9	7.7	3.7
Cycle Q Clear(g_c), s	5.8	0.0	2.7	0.6	0.0	1.3	3.1	7.2	7.2	0.9	7.7	3.7
Prop In Lane	1.00		0.89	1.00		0.75	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	266	0	313	46	0	116	145	752	787	65	707	601
V/C Ratio(X)	0.78	0.00	0.31	0.47	0.00	0.38	0.75	0.46	0.46	0.51	0.51	0.27
Avail Cap(c_a), veh/h	377	0	342	377	0	349	377	871	912	377	917	779
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	21.2	0.0	17.9	24.9	0.0	23.0	23.3	10.7	10.7	24.5	12.4	11.1
Incr Delay (d2), s/veh	11.0	0.0	1.2	15.1	0.0	4.3	15.3	0.9	0.9	12.7	1.2	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(-26165%),veh/ln	3.6	0.0	1.3	0.5	0.0	0.7	2.1	3.6	3.8	0.7	4.1	1.7
LnGrp Delay(d),s/veh	32.2	0.0	19.1	40.0	0.0	27.3	38.5	11.6	11.5	37.2	13.6	11.6
LnGrp LOS	C		B	D		C	D	B	B	D	B	B
Approach Vol, veh/h		305			66			816			555	
Approach Delay, s/veh		28.0			31.6			15.2			14.4	
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	5.9	26.5	5.4	14.1	8.2	24.2	11.8	7.6				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	11.0	25.5	11.0	11.0	11.0	25.5	11.0	11.0				
Max Q Clear Time (g_c+I1), s	2.9	9.2	2.6	4.7	5.1	9.7	7.8	3.3				
Green Ext Time (p_c), s	0.0	10.2	0.0	0.6	0.2	10.0	0.4	0.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			17.8									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 4.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	40	460	410	160	140	50
Conflicting Peds, #/hr	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	150	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	489	436	170	149	53

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	436	0	1010
Stage 1	-	-	436
Stage 2	-	-	574
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1124	-	620
Stage 1	-	-	652
Stage 2	-	-	563
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1124	-	620
Mov Cap-2 Maneuver	-	-	256
Stage 1	-	-	652
Stage 2	-	-	541

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	30.2
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1124	-	-	-	256	620
HCM Lane V/C Ratio	0.038	-	-	-	0.582	0.086
HCM Control Delay (s)	8.3	-	-	-	36.9	11.4
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.1	-	-	-	3.3	0.3

**Intersection**

Int Delay, s/veh 3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	30	400	390	110	110	20
Conflicting Peds, #/hr	0	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	125	-	-	125	0	125
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	426	415	117	117	21







Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	415	0	904
Stage 1	-	-	415
Stage 2	-	-	489
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1144	-	637
Stage 1	-	-	666
Stage 2	-	-	616
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1144	-	637
Mov Cap-2 Maneuver	-	-	298
Stage 1	-	-	666
Stage 2	-	-	599

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	22.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1144	-	-	-	298	637
HCM Lane V/C Ratio	0.028	-	-	-	0.393	0.033
HCM Control Delay (s)	8.2	-	-	-	24.7	10.8
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.8	0.1

HCM 2010 Signalized Intersection Summary  
 10: Harper JR HS Access & Covell Blvd

E+P MRIC Mixed-Use  
 PM Peak Hour

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑	↑	↑		
Volume (veh/h)	460	40	40	780	60	10		
Number	2	12	1	6	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	1863	1863	1863	1827	1817	1900		
Adj Flow Rate, veh/h	489	43	43	830	64	11		
Adj No. of Lanes	2	1	1	1	0	0		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	4	0	0		
Cap, veh/h	2115	946	100	1372	81	14		
Arrive On Green	0.60	0.60	0.06	0.75	0.06	0.06		
Sat Flow, veh/h	3632	1582	1774	1827	1433	246		
Grp Volume(v), veh/h	489	43	43	830	76	0		
Grp Sat Flow(s),veh/h/ln	1770	1582	1774	1827	1702	0		
Q Serve(g_s), s	2.7	0.5	1.0	8.6	1.8	0.0		
Cycle Q Clear(g_c), s	2.7	0.5	1.0	8.6	1.8	0.0		
Prop In Lane		1.00	1.00		0.84	0.14		
Lane Grp Cap(c), veh/h	2115	946	100	1372	96	0		
V/C Ratio(X)	0.23	0.05	0.43	0.61	0.79	0.00		
Avail Cap(c_a), veh/h	2647	1183	685	1372	1068	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	3.9	3.4	18.9	2.4	19.3	0.0		
Incr Delay (d2), s/veh	0.1	0.0	6.1	0.8	13.6	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	1.3	0.2	0.6	4.4	1.2	0.0		
LnGrp Delay(d),s/veh	3.9	3.5	25.0	3.1	32.9	0.0		
LnGrp LOS	A	A	C	A	C			
Approach Vol, veh/h	532			873	76			
Approach Delay, s/veh	3.9			4.2	32.9			
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	6.3	28.8				35.1		6.3
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	31.0				31.0		26.0
Max Q Clear Time (g_c+I1), s	3.0	4.7				10.6		3.8
Green Ext Time (p_c), s	0.1	10.2				9.3		0.2
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			5.6					
HCM 2010 LOS			A					
<b>Notes</b>								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary  
 11: Alhambra Dr & Covell Blvd

E+P MRIC Mixed-Use  
 PM Peak Hour

	→	↘	↙	←	↖	↗		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑	↑	↑	↑	↑	↑		
Volume (veh/h)	480	120	20	820	110	20		
Number	2	12	1	6	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	1863	1863	1520	1845	1863	1900		
Adj Flow Rate, veh/h	511	0	21	872	117	0		
Adj No. of Lanes	2	1	1	1	0	0		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	25	3	0	0		
Cap, veh/h	1624	727	38	1122	151	0		
Arrive On Green	0.46	0.00	0.03	0.61	0.09	0.00		
Sat Flow, veh/h	3632	1583	1448	1845	1760	0		
Grp Volume(v), veh/h	511	0	21	872	118	0		
Grp Sat Flow(s),veh/h/ln	1770	1583	1448	1845	1775	0		
Q Serve(g_s), s	3.0	0.0	0.5	11.5	2.1	0.0		
Cycle Q Clear(g_c), s	3.0	0.0	0.5	11.5	2.1	0.0		
Prop In Lane		1.00	1.00		0.99	0.00		
Lane Grp Cap(c), veh/h	1624	727	38	1122	152	0		
V/C Ratio(X)	0.31	0.00	0.55	0.78	0.78	0.00		
Avail Cap(c_a), veh/h	2113	945	355	1122	571	0		
HCM Platoon Ratio	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	0.00		
Uniform Delay (d), s/veh	5.6	0.0	15.7	4.8	14.6	0.0		
Incr Delay (d2), s/veh	0.2	0.0	11.5	3.9	8.2	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	1.5	0.0	0.3	6.8	1.4	0.0		
LnGrp Delay(d),s/veh	5.8	0.0	27.2	8.6	22.8	0.0		
LnGrp LOS	A		C	A	C			
Approach Vol, veh/h	511			893	118			
Approach Delay, s/veh	5.8			9.1	22.8			
Approach LOS	A			A	C			
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	4.9	20.5		7.3		25.4		
Change Period (Y+Rc), s	4.0	5.5		4.5		5.5		
Max Green Setting (Gmax), s	8.0	19.5		10.5		19.5		
Max Q Clear Time (g_c+I1), s	2.5	5.0		4.1		13.5		
Green Ext Time (p_c), s	0.0	10.0		0.1		5.0		
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			9.0					
HCM 2010 LOS			A					
<b>Notes</b>								
User approved pedestrian interval to be less than phase max green.								

Intersection												
Int Delay, s/veh	1.2											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	590	40	10	920	0	20	10	10	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	9	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	3	10	4	2	2	2	4	2	2	2
Mvmt Flow	11	628	43	11	979	0	21	11	11	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	979	0	0	670	0	0	1181	1670	344	1340	1691	489
Stage 1	-	-	-	-	-	-	670	670	-	1000	1000	-
Stage 2	-	-	-	-	-	-	511	1000	-	340	691	-
Critical Hdwy	4.14	-	-	4.3	-	-	7.54	6.54	6.98	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.3	-	-	3.52	4.02	3.34	3.52	4.02	3.32
Pot Cap-1 Maneuver	701	-	-	864	-	-	145	95	646	111	92	525
Stage 1	-	-	-	-	-	-	413	454	-	261	319	-
Stage 2	-	-	-	-	-	-	514	319	-	648	444	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	701	-	-	858	-	-	139	92	641	97	89	525
Mov Cap-2 Maneuver	-	-	-	-	-	-	139	92	-	97	89	-
Stage 1	-	-	-	-	-	-	407	447	-	257	315	-
Stage 2	-	-	-	-	-	-	497	315	-	608	437	-



















Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	38.5	12
HCM LOS			E	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	149	701	-	-	858	-	-	525
HCM Lane V/C Ratio	0.286	0.015	-	-	0.012	-	-	0.02
HCM Control Delay (s)	38.5	10.2	-	-	9.2	-	-	12
HCM Lane LOS	E	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1.1	0	-	-	0	-	-	0.1



HCM 2010 Signalized Intersection Summary  
 13: Bike Dummy/Wright Blvd & Covell Blvd

E+P MRIC Mixed-Use  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	540	0	0	740	210	0	0	0	100	0	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		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	1810	1863	0	0	1845	1900	0	1863	0	1863	0	1863
Adj Flow Rate, veh/h	117	574	0	0	787	0	0	0	0	106	0	0
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	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, %	5	2	0	0	3	3	0	2	0	2	0	2
Cap, veh/h	157	2305	0	0	1615	0	0	5	0	356	0	0
Arrive On Green	0.09	0.65	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.10	0.00	0.00
Sat Flow, veh/h	1723	3632	0	0	3689	0	0	-74510	0	1774	106	
Grp Volume(v), veh/h	117	574	0	0	787	0	0	0	0	106	0.0	
Grp Sat Flow(s),veh/h/ln	1723	1770	0	0	1752	0	0	1863	0	1774	A	
Q Serve(g_s), s	2.7	2.7	0.0	0.0	6.3	0.0	0.0	0.0	0.0	3.7		
Cycle Q Clear(g_c), s	2.7	2.7	0.0	0.0	6.3	0.0	0.0	0.0	0.0	3.7		
Prop In Lane	1.00		0.00	0.00		0.00	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	157	2305	0	0	1615	0	0	5	0	0		
V/C Ratio(X)	0.75	0.25	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00		
Avail Cap(c_a), veh/h	258	2305	0	0	2097	0	0	511	0	0		
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	1.00	0.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	17.8	2.9	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	6.9	0.1	0.0	0.0	0.5	0.0	0.0	0.0	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		
%ile BackOfQ(-26165%),veh/ln	1.6	1.3	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0		
LnGrp Delay(d),s/veh	24.7	3.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0		
LnGrp LOS	C	A			A							
Approach Vol, veh/h		691			787			0				
Approach Delay, s/veh		6.7			8.0			0.0				
Approach LOS		A			A							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		32.1			7.6	24.5	8.0	0.0				
Change Period (Y+Rc), s		6.0			4.0	6.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0			6.0	24.0	6.0	11.0				
Max Q Clear Time (g_c+I1), s		4.7			4.7	8.3	5.7	0.0				
Green Ext Time (p_c), s		13.8			0.0	10.2	0.0	0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			6.9									
HCM 2010 LOS			A									

**Intersection**

Int Delay, s/veh 1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	630	30	30	790	40	20
Conflicting Peds, #/hr	0	4	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	670	32	32	840	43	21

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	702
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	891
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	891
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	25.8
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	236	-	-	891	-
HCM Lane V/C Ratio	0.27	-	-	0.036	-
HCM Control Delay (s)	25.8	-	-	9.2	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	1.1	-	-	0.1	-

Intersection												
Int Delay, s/veh	0.8											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	20	630	20	10	810	10	10	0	20	10	0	10
Conflicting Peds, #/hr	0	0	1	0	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	Stop
Storage Length	125	-	-	125	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	670	21	11	862	11	11	0	21	11	0	11













Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	862	0	0	691	0	0	1175	1606	346	1261	1617	432
Stage 1	-	-	-	-	-	-	723	723	-	883	883	-
Stage 2	-	-	-	-	-	-	452	883	-	378	734	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	776	-	-	900	-	0	147	104	650	127	103	572
Stage 1	-	-	-	-	-	0	384	429	-	307	362	-
Stage 2	-	-	-	-	-	0	557	362	-	616	424	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	775	-	-	900	-	-	140	100	650	119	99	572
Mov Cap-2 Maneuver	-	-	-	-	-	-	140	100	-	119	99	-
Stage 1	-	-	-	-	-	-	374	417	-	299	358	-
Stage 2	-	-	-	-	-	-	540	358	-	580	413	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.1			18.7			21.6		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	294	775	-	-	900	-	238
HCM Lane V/C Ratio	0.109	0.027	-	-	0.012	-	0.089
HCM Control Delay (s)	18.7	9.8	-	-	9	-	21.6
HCM Lane LOS	C	A	-	-	A	-	C
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	0.3


























HCM 2010 Signalized Intersection Summary  
 16: Birch Ln/Bike lane & Covell Blvd

E+P MRIC Mixed-Use  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑		↖		↗		↑	
Volume (veh/h)	0	650	20	30	800	0	30	0	20	0	0	0
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		0.96	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	0	1845	1863	1863	1863	0	1863	0	1863	0	1863	0
Adj Flow Rate, veh/h	0	691	21	32	851	0	32	0	21	0	0	0
Adj No. of Lanes	0	2	1	1	2	0	1	0	1	0	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, %	0	3	2	2	2	0	2	0	2	0	2	0
Cap, veh/h	0	1921	834	69	2537	0	41	0	0	0	6	0
Arrive On Green	0.00	0.55	0.55	0.04	0.72	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3597	1523	1774	3632	0	1774	32		0	-74510	0
Grp Volume(v), veh/h	0	691	21	32	851	0	32	40.6		0	0	0
Grp Sat Flow(s),veh/h/ln	0	1752	1523	1774	1770	0	1774	D		0	1863	0
Q Serve(g_s), s	0.0	3.4	0.2	0.5	2.8	0.0	0.6			0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	3.4	0.2	0.5	2.8	0.0	0.6			0.0	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00	1.00			0.00		0.00
Lane Grp Cap(c), veh/h	0	1921	834	69	2537	0	41			0	6	0
V/C Ratio(X)	0.00	0.36	0.03	0.46	0.34	0.00	0.77			0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	3187	1385	922	3219	0	1498			0	1270	0
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)	0.00	1.00	1.00	1.00	1.00	0.00	1.00			0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	3.9	3.2	14.5	1.6	0.0	15.0			0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	4.8	0.1	0.0	25.6			0.0	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
%ile BackOfQ(-26165%),veh/ln	0.0	1.7	0.1	0.3	1.3	0.0	0.6			0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	4.0	3.2	19.3	1.7	0.0	40.6			0.0	0.0	0.0
LnGrp LOS		A	A	B	A		D					
Approach Vol, veh/h		712			883						0	
Approach Delay, s/veh		4.0			2.3						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	5.2	20.9	4.7	0.0		26.1						
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0		4.0						
Max Green Setting (Gmax), s	16.0	28.0	26.0	21.0		28.0						
Max Q Clear Time (g_c+I1), s	2.5	5.4	2.6	0.0		4.8						
Green Ext Time (p_c), s	0.0	11.5	0.0	0.0		11.6						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			3.8									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary  
 17: Pole Line Rd & Covell Blvd

E+P MRIC Mixed-Use  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Volume (veh/h)	310	520	160	110	580	140	140	320	20	130	190	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		1.00	1.00		1.00	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	1863	1854	1900	1827	1863	1900	1845	1712	1863	1845	1827	1863
Adj Flow Rate, veh/h	330	553	0	117	617	0	149	340	21	138	202	255
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	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, %	2	2	2	4	2	2	3	11	2	3	4	2
Cap, veh/h	380	1373	0	151	929	0	187	335	295	173	343	289
Arrive On Green	0.21	0.39	0.00	0.09	0.26	0.00	0.11	0.20	0.20	0.10	0.19	0.19
Sat Flow, veh/h	1774	3616	0	1740	3632	0	1757	1712	1507	1757	1827	1538
Grp Volume(v), veh/h	330	553	0	117	617	0	149	340	21	138	202	255
Grp Sat Flow(s),veh/h/ln	1774	1761	0	1740	1770	0	1757	1712	1507	1757	1827	1538
Q Serve(g_s), s	14.1	8.9	0.0	5.2	12.2	0.0	6.5	15.4	0.9	6.0	7.9	12.7
Cycle Q Clear(g_c), s	14.1	8.9	0.0	5.2	12.2	0.0	6.5	15.4	0.9	6.0	7.9	12.7
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	380	1373	0	151	929	0	187	335	295	173	343	289
V/C Ratio(X)	0.87	0.40	0.00	0.78	0.66	0.00	0.80	1.01	0.07	0.80	0.59	0.88
Avail Cap(c_a), veh/h	587	1373	0	465	1351	0	358	335	295	268	349	294
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	17.4	0.0	35.1	25.9	0.0	34.3	31.6	25.8	34.7	29.1	31.1
Incr Delay (d2), s/veh	8.6	0.2	0.0	8.2	0.8	0.0	7.4	52.6	0.1	8.8	2.5	25.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	7.8	4.3	0.0	2.8	6.1	0.0	3.5	12.1	0.4	3.3	4.2	7.4
LnGrp Delay(d),s/veh	38.5	17.6	0.0	43.4	26.7	0.0	41.7	84.3	25.9	43.5	31.7	56.2
LnGrp LOS	D	B		D	C		D	F	C	D	C	E
Approach Vol, veh/h		883			734			510			595	
Approach Delay, s/veh		25.4			29.4			69.5			44.9	
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	20.8	25.6	12.4	19.8	10.8	35.6	11.8	20.4				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	26.0	30.0	16.0	15.0	21.0	30.0	12.0	15.0				
Max Q Clear Time (g_c+I1), s	16.1	14.2	8.5	14.7	7.2	10.9	8.0	17.4				
Green Ext Time (p_c), s	0.7	6.4	0.2	0.1	0.2	7.7	0.1	0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			39.0									
HCM 2010 LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

**Intersection**

Int Delay, s/veh 1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	940	110	70	900	20	130
Conflicting Peds, #/hr	0	5	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	5	2
Mvmt Flow	1000	117	74	957	21	138



















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1628
Stage 1	-	-	1000
Stage 2	-	-	628
Critical Hdwy	-	4.14	6.9
Critical Hdwy Stg 1	-	-	5.9
Critical Hdwy Stg 2	-	-	5.9
Follow-up Hdwy	-	2.22	3.55
Pot Cap-1 Maneuver	-	688	90
Stage 1	-	-	310
Stage 2	-	-	486
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	688	80
Mov Cap-2 Maneuver	-	-	80
Stage 1	-	-	310
Stage 2	-	-	432

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	595	-	-	688	-
HCM Lane V/C Ratio	0.268	-	-	0.108	-
HCM Control Delay (s)	13.3	-	-	10.9	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	1.1	-	-	0.4	-
























HCM 2010 Signalized Intersection Summary  
 19: J St & Covell Blvd

E+P MRIC Mixed-Use  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	950	120	60	860	0	110	10	100	0	10	0
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	1863	1857	1900	1743	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	0	1011	0	64	915	0	117	11	0	0	11	0
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	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, %	2	2	2	9	2	2	2	2	2	2	2	2
Cap, veh/h	4	1679	0	80	2158	0	164	15	0	0	21	0
Arrive On Green	0.00	0.48	0.00	0.05	0.61	0.00	0.10	0.10	0.00	0.00	0.01	0.00
Sat Flow, veh/h	1774	3620	0	1660	3632	0	1628	153	0	0	1863	0
Grp Volume(v), veh/h	0	1011	0	64	915	0	128	0	0	0	11	0
Grp Sat Flow(s),veh/h/ln	1774	1764	0	1660	1770	0	1781	0	0	0	1863	0
Q Serve(g_s), s	0.0	9.8	0.0	1.8	6.4	0.0	3.3	0.0	0.0	0.0	0.3	0.0
Cycle Q Clear(g_c), s	0.0	9.8	0.0	1.8	6.4	0.0	3.3	0.0	0.0	0.0	0.3	0.0
Prop In Lane	1.00		0.00	1.00		0.00	0.91		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	4	1679	0	80	2158	0	179	0	0	0	21	0
V/C Ratio(X)	0.00	0.60	0.00	0.80	0.42	0.00	0.71	0.00	0.00	0.00	0.52	0.00
Avail Cap(c_a), veh/h	152	2641	0	213	2650	0	1067	0	0	0	837	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	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	9.0	0.0	22.0	4.8	0.0	20.4	0.0	0.0	0.0	23.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	6.6	0.0	0.0	2.0	0.0	0.0	0.0	7.1	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(-26165%),veh/ln	0.0	4.7	0.0	0.9	3.1	0.0	1.7	0.0	0.0	0.0	0.2	0.0
LnGrp Delay(d),s/veh	0.0	9.1	0.0	28.6	4.8	0.0	22.3	0.0	0.0	0.0	30.1	0.0
LnGrp LOS		A		C	A		C				C	
Approach Vol, veh/h		1011			979			128			11	
Approach Delay, s/veh		9.1			6.4			22.3			30.1	
Approach LOS		A			A			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	6.3	27.2		4.5	0.0	33.5		8.7				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	6.0	35.0		21.0	4.0	35.0		28.0				
Max Q Clear Time (g_c+I1), s	3.8	11.8		2.3	0.0	8.4		5.3				
Green Ext Time (p_c), s	0.0	10.4		0.0	0.0	11.0		0.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			8.8									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary  
20: F St & Covell Blvd

E+P MRIC Mixed-Use  
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 							
Volume (veh/h)	50	780	190	160	670	140	130	170	190	100	110	50
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	1863	1863	1900	1845	1863	1900	1845	1853	1900	1863	1840	1900
Adj Flow Rate, veh/h	53	830	0	170	713	0	138	181	0	106	117	0
Adj No. of Lanes	1	2	0	2	2	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, %	2	2	2	3	2	2	3	2	2	2	2	2
Cap, veh/h	88	1312	0	279	1426	0	183	315	0	143	269	0
Arrive On Green	0.05	0.37	0.00	0.08	0.40	0.00	0.10	0.17	0.00	0.08	0.15	0.00
Sat Flow, veh/h	1774	3632	0	3408	3632	0	1757	1853	0	1774	1840	0
Grp Volume(v), veh/h	53	830	0	170	713	0	138	181	0	106	117	0
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1704	1770	0	1757	1853	0	1774	1840	0
Q Serve(g_s), s	1.7	11.0	0.0	2.8	8.6	0.0	4.4	5.1	0.0	3.3	3.3	0.0
Cycle Q Clear(g_c), s	1.7	11.0	0.0	2.8	8.6	0.0	4.4	5.1	0.0	3.3	3.3	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	88	1312	0	279	1426	0	183	315	0	143	269	0
V/C Ratio(X)	0.60	0.63	0.00	0.61	0.50	0.00	0.75	0.57	0.00	0.74	0.43	0.00
Avail Cap(c_a), veh/h	806	2473	0	1548	2473	0	798	842	0	806	836	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(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.6	14.8	0.0	25.4	12.8	0.0	24.9	21.9	0.0	25.7	22.3	0.0
Incr Delay (d2), s/veh	2.4	0.2	0.0	0.8	0.1	0.0	6.2	1.7	0.0	8.8	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(-26165%),veh/ln	0.9	5.3	0.0	1.3	4.2	0.0	2.4	2.8	0.0	2.0	1.8	0.0
LnGrp Delay(d),s/veh	29.1	15.0	0.0	26.2	12.9	0.0	31.1	23.5	0.0	34.5	23.6	0.0
LnGrp LOS	C	B		C	B		C	C		C	C	
Approach Vol, veh/h		883			883			319			223	
Approach Delay, s/veh		15.8			15.4			26.8			28.8	
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	8.7	26.2	10.0	12.4	6.8	28.1	8.6	13.7				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	26.0	40.0	26.0	26.0	26.0	40.0	26.0	26.0				
Max Q Clear Time (g_c+I1), s	4.8	13.0	6.4	5.3	3.7	10.6	5.3	7.1				
Green Ext Time (p_c), s	0.3	8.2	0.3	1.8	0.0	8.4	0.3	1.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			18.5									
HCM 2010 LOS			B									



Intersection												
Intersection Delay, s/veh	11.9											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	240	140	50	0	60	120	10	0	40	40	30
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	255	149	53	0	64	128	11	0	43	43	32
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	12.8	10.7	10.3
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	57%	0%	74%	0%	92%	0%	50%
Vol Right, %	0%	43%	0%	26%	0%	8%	0%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	70	240	190	60	130	10	180
LT Vol	40	0	240	0	60	0	10	0
Through Vol	0	40	0	140	0	120	0	90
RT Vol	0	30	0	50	0	10	0	90
Lane Flow Rate	43	74	255	202	64	138	11	191
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.085	0.132	0.451	0.318	0.119	0.236	0.021	0.329
Departure Headway (Hd)	7.216	6.402	6.355	5.664	6.714	6.152	7.058	6.194
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	496	559	567	635	533	582	507	580
Service Time	4.972	4.157	4.095	3.403	4.464	3.902	4.807	3.943
HCM Lane V/C Ratio	0.087	0.132	0.45	0.318	0.12	0.237	0.022	0.329
HCM Control Delay	10.6	10.1	14.2	11	10.4	10.8	10	12
HCM Lane LOS	B	B	B	B	B	B	A	B
HCM 95th-tile Q	0.3	0.5	2.3	1.4	0.4	0.9	0.1	1.4

**Intersection**

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	10	90	90
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	11	96	96
Number of Lanes	0	1	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	11.9
HCM LOS	B

**Lane**

**Intersection**

Int Delay, s/veh 4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	100	10	120	10	0	10	20	340	10	10	190	60
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	175	-	-	-	150	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	106	11	128	11	0	11	21	362	11	11	202	64

























Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	670	670	235	734	697	367	266	0	0	372	0	0
Stage 1	255	255	-	410	410	-	-	-	-	-	-	-
Stage 2	415	415	-	324	287	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	371	378	804	336	365	678	1298	-	-	1186	-	-
Stage 1	749	696	-	619	595	-	-	-	-	-	-	-
Stage 2	615	592	-	688	674	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	358	368	803	271	356	678	1297	-	-	1186	-	-
Mov Cap-2 Maneuver	358	368	-	271	356	-	-	-	-	-	-	-
Stage 1	737	690	-	609	585	-	-	-	-	-	-	-
Stage 2	596	582	-	564	668	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	14.6			14.8			0.4			0.3		
HCM LOS	B			B								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1297	-	-	358	736	387	1186	-	-
HCM Lane V/C Ratio	0.016	-	-	0.297	0.188	0.055	0.009	-	-
HCM Control Delay (s)	7.8	-	-	19.3	11	14.8	8.1	-	-
HCM Lane LOS	A	-	-	C	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.2	0.7	0.2	0	-	-

























HCM 2010 Signalized Intersection Summary  
 34: Cowell Blvd & Pole Line Rd/Lillard Dr

E+P MRIC Mixed-Use  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	180	300	140	160	190	10	110	200	140	10	90	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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	191	319	0	170	202	0	117	213	0	11	96	0
Adj No. of Lanes	1	1	1	1	2	1	1	1	1	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	474	403	221	848	379	161	385	327	26	242	206
Arrive On Green	0.14	0.25	0.00	0.12	0.24	0.00	0.09	0.21	0.00	0.01	0.13	0.00
Sat Flow, veh/h	1774	1863	1583	1774	3539	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	191	319	0	170	202	0	117	213	0	11	96	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1770	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	4.2	6.2	0.0	3.7	1.8	0.0	2.6	4.1	0.0	0.2	1.9	0.0
Cycle Q Clear(g_c), s	4.2	6.2	0.0	3.7	1.8	0.0	2.6	4.1	0.0	0.2	1.9	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	248	474	403	221	848	379	161	385	327	26	242	206
V/C Ratio(X)	0.77	0.67	0.00	0.77	0.24	0.00	0.73	0.55	0.00	0.43	0.40	0.00
Avail Cap(c_a), veh/h	709	745	633	709	1061	475	355	652	554	488	652	554
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.6	13.4	0.0	17.0	12.3	0.0	17.7	14.2	0.0	19.6	16.0	0.0
Incr Delay (d2), s/veh	1.9	0.6	0.0	2.1	0.1	0.0	2.3	0.5	0.0	4.2	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(-26165%),veh/ln	2.1	3.2	0.0	1.9	0.9	0.0	1.3	2.1	0.0	0.1	1.0	0.0
LnGrp Delay(d),s/veh	18.5	14.0	0.0	19.1	12.3	0.0	20.0	14.7	0.0	23.8	16.4	0.0
LnGrp LOS	B	B		B	B		C	B		C	B	
Approach Vol, veh/h		510			372			330			107	
Approach Delay, s/veh		15.7			15.4			16.6			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	4.6	12.3	9.0	14.2	7.6	9.2	9.6	13.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	14.0	16.0	16.0	8.0	14.0	16.0	12.0				
Max Q Clear Time (g_c+I1), s	2.2	6.1	5.7	8.2	4.6	3.9	6.2	3.8				
Green Ext Time (p_c), s	0.0	0.7	0.2	1.5	0.0	0.9	0.2	1.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			16.0									
HCM 2010 LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												























HCM 2010 Signalized Intersection Summary  
 35: Valdora St & Cowell Blvd

E+P MRIC Mixed-Use  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	400	80	40	310	40	50	20	50	30	20	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		0.92	1.00		0.97	1.00		0.97	1.00		0.61
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	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	128	426	85	43	330	43	53	21	53	32	21	85
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	701	547	83	617	507	97	285	234	66	29	116
Arrive On Green	0.09	0.38	0.38	0.05	0.33	0.33	0.05	0.15	0.15	0.04	0.14	0.14
Sat Flow, veh/h	1774	1863	1452	1774	1863	1532	1774	1863	1529	1774	211	855
Grp Volume(v), veh/h	128	426	85	43	330	43	53	21	53	32	0	106
Grp Sat Flow(s),veh/h/ln	1774	1863	1452	1774	1863	1532	1774	1863	1529	1774	0	1066
Q Serve(g_s), s	3.0	7.9	1.7	1.0	6.1	0.8	1.2	0.4	1.3	0.8	0.0	4.1
Cycle Q Clear(g_c), s	3.0	7.9	1.7	1.0	6.1	0.8	1.2	0.4	1.3	0.8	0.0	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.80
Lane Grp Cap(c), veh/h	163	701	547	83	617	507	97	285	234	66	0	144
V/C Ratio(X)	0.78	0.61	0.16	0.52	0.53	0.08	0.55	0.07	0.23	0.49	0.00	0.73
Avail Cap(c_a), veh/h	250	1332	1038	250	1332	1095	250	285	234	250	0	150
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	0.00	1.00
Uniform Delay (d), s/veh	19.0	10.8	8.8	19.9	11.6	9.8	19.6	15.5	15.8	20.1	0.0	17.7
Incr Delay (d2), s/veh	4.0	0.3	0.0	1.9	0.3	0.0	1.8	0.0	0.2	2.1	0.0	14.2
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(-26165%),veh/ln	1.6	4.1	0.7	0.5	3.2	0.3	0.7	0.2	0.6	0.4	0.0	1.7
LnGrp Delay(d),s/veh	23.0	11.1	8.9	21.7	11.9	9.8	21.4	15.5	16.0	22.2	0.0	31.9
LnGrp LOS	C	B	A	C	B	A	C	B	B	C		C
Approach Vol, veh/h		639			416			127				138
Approach Delay, s/veh		13.2			12.7			18.2				29.6
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	6.0	20.6	6.3	9.8	7.9	18.6	5.6	10.5				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	6.0	30.5	6.0	6.0	6.0	30.5	6.0	6.0				
Max Q Clear Time (g_c+I1), s	3.0	9.9	3.2	6.1	5.0	8.1	2.8	3.3				
Green Ext Time (p_c), s	0.0	3.5	0.0	0.0	0.0	3.6	0.0	0.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			15.2									
HCM 2010 LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary  
 36: Drew Ave & Cowell Blvd

E+P MRIC Mixed-Use  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	590	70	30	430	20	60	10	30	20	10	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		0.95	1.00		0.96	1.00		0.94	1.00		0.69
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	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	53	628	74	32	457	21	64	11	32	21	11	117
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	785	93	62	872	709	98	66	193	44	249	147
Arrive On Green	0.05	0.48	0.48	0.03	0.47	0.47	0.06	0.16	0.16	0.02	0.13	0.13
Sat Flow, veh/h	1774	1626	192	1774	1863	1516	1774	403	1172	1774	1863	1097
Grp Volume(v), veh/h	53	0	702	32	457	21	64	0	43	21	11	117
Grp Sat Flow(s),veh/h/ln	1774	0	1818	1774	1863	1516	1774	0	1574	1774	1863	1097
Q Serve(g_s), s	1.7	0.0	18.9	1.0	10.0	0.4	2.0	0.0	1.4	0.7	0.3	6.0
Cycle Q Clear(g_c), s	1.7	0.0	18.9	1.0	10.0	0.4	2.0	0.0	1.4	0.7	0.3	6.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.74	1.00		1.00
Lane Grp Cap(c), veh/h	88	0	878	62	872	709	98	0	259	44	249	147
V/C Ratio(X)	0.60	0.00	0.80	0.52	0.52	0.03	0.65	0.00	0.17	0.48	0.04	0.80
Avail Cap(c_a), veh/h	337	0	941	245	964	785	245	0	259	245	257	151
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.0	0.0	12.6	27.5	10.9	8.3	26.8	0.0	20.8	27.9	21.9	24.3
Incr Delay (d2), s/veh	6.5	0.0	5.6	6.6	1.0	0.0	7.0	0.0	0.6	7.9	0.1	24.5
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(-26165%),veh/ln	1.0	0.0	10.7	0.6	5.3	0.2	1.2	0.0	0.6	0.4	0.2	2.8
LnGrp Delay(d),s/veh	33.5	0.0	18.2	34.1	11.9	8.4	33.9	0.0	21.4	35.8	21.9	48.8
LnGrp LOS	C		B	C	B	A	C		C	D	C	D
Approach Vol, veh/h		755			510			107			149	
Approach Delay, s/veh		19.3			13.2			28.9			45.0	
Approach LOS		B			B			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	6.0	33.0	7.2	11.8	6.9	32.1	5.4	13.5				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	8.0	30.0	8.0	8.0	11.0	30.0	8.0	8.0				
Max Q Clear Time (g_c+I1), s	3.0	20.9	4.0	8.0	3.7	12.0	2.7	3.4				
Green Ext Time (p_c), s	0.0	7.1	0.0	0.0	0.0	12.5	0.0	0.4				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			20.4									
HCM 2010 LOS			C									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary  
 37: Research Park Dr & Cowell Blvd

E+P MRIC Mixed-Use  
 PM Peak Hour

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	30	140	660	50	40	640	20	160	20	50	60	10
Number		5	2	12	1	6	16	3	8	18	7	4
Initial Q (Qb), veh		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		0.88	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
Adj Sat Flow, veh/h/ln		1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h		149	702	53	43	681	0	170	21	53	64	11
Adj No. of Lanes		1	1	1	1	2	0	2	2	0	1	2
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
Percent Heavy Veh, %		2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h		177	1102	917	79	1897	0	235	311	246	83	273
Arrive On Green		0.20	1.00	1.00	0.04	0.54	0.00	0.07	0.18	0.18	0.05	0.15
Sat Flow, veh/h		1774	1863	1550	1774	3632	0	3442	1770	1398	1774	1770
Grp Volume(v), veh/h		149	702	53	43	681	0	170	21	53	64	11
Grp Sat Flow(s),veh/h/ln		1774	1863	1550	1774	1770	0	1721	1770	1398	1774	1770
Q Serve(g_s), s		9.7	0.0	0.0	2.8	13.3	0.0	5.8	1.2	3.9	4.3	0.6
Cycle Q Clear(g_c), s		9.7	0.0	0.0	2.8	13.3	0.0	5.8	1.2	3.9	4.3	0.6
Prop In Lane		1.00		1.00	1.00		0.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h		177	1102	917	79	1897	0	235	311	246	83	273
V/C Ratio(X)		0.84	0.64	0.06	0.55	0.36	0.00	0.72	0.07	0.22	0.77	0.04
Avail Cap(c_a), veh/h		517	1102	917	222	1897	0	574	413	326	296	413
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
Upstream Filter(I)		0.83	0.83	0.83	0.91	0.91	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		47.1	0.0	0.0	56.1	16.0	0.0	54.8	41.3	42.4	56.6	43.2
Incr Delay (d2), s/veh		8.6	2.4	0.1	5.3	0.5	0.0	4.2	0.1	0.4	13.8	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
%ile BackOfQ(-26165%),veh/ln		5.1	0.7	0.0	1.5	6.6	0.0	2.9	0.6	1.5	2.4	0.3
LnGrp Delay(d),s/veh		55.7	2.4	0.1	61.4	16.5	0.0	59.0	41.4	42.8	70.4	43.3
LnGrp LOS		E	A	A	E	B		E	D	D	E	D
Approach Vol, veh/h			904			724			244			181
Approach Delay, s/veh			11.0			19.1			54.0			55.5
Approach LOS			B			B			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	9.3	76.0	12.2	22.5	16.0	69.3	9.6	25.1				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	15.0	40.0	20.0	28.0	35.0	20.0	20.0	28.0				
Max Q Clear Time (g_c+I1), s	4.8	2.0	7.8	9.9	11.7	15.3	6.3	5.9				
Green Ext Time (p_c), s	0.0	13.0	0.4	1.1	0.4	3.4	0.1	1.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			22.9									
HCM 2010 LOS			C									
<b>Notes</b>												
User approved ignoring U-Turning movement.												

Movement	SBR
<b>Lane Configurations</b>	
Volume (veh/h)	100
Number	14
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.93
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	106
Adj No. of Lanes	0
Peak Hour Factor	0.94
Percent Heavy Veh, %	2
Cap, veh/h	226
Arrive On Green	0.15
Sat Flow, veh/h	1465
Grp Volume(v), veh/h	106
Grp Sat Flow(s),veh/h/ln	1465
Q Serve(g_s), s	7.9
Cycle Q Clear(g_c), s	7.9
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	226
V/C Ratio(X)	0.47
Avail Cap(c_a), veh/h	342
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	46.3
Incr Delay (d2), s/veh	1.5
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(-26165%),veh/ln	3.3
LnGrp Delay(d),s/veh	47.8
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
<b>Timer</b>	



**Intersection**

Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	200	180	0	40	170	0	140	30
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	213	191	0	43	181	0	149	32
Number of Lanes	0	1	1	0	1	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	9.6	10	10.4
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	82%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%
Vol Right, %	18%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	170	200	180	40	170
LT Vol	140	0	0	40	0
Through Vol	0	200	0	0	170
RT Vol	30	0	180	0	0
Lane Flow Rate	181	213	191	43	181
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.269	0.311	0.242	0.07	0.272
Departure Headway (Hd)	5.36	5.263	4.557	5.922	5.417
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	666	679	783	601	658
Service Time	3.427	3.024	2.318	3.694	3.189
HCM Lane V/C Ratio	0.272	0.314	0.244	0.072	0.275
HCM Control Delay	10.4	10.4	8.8	9.1	10.2
HCM Lane LOS	B	B	A	A	B
HCM 95th-tile Q	1.1	1.3	0.9	0.2	1.1

Intersection												
Intersection Delay, s/veh	8.3											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	60	90	10	0	10	40	10	0	10	10	10
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	64	96	11	0	11	43	11	0	11	11	11
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	8.6	8.2	8.1
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	50%	0%	90%	0%	80%	0%	10%
Vol Right, %	0%	50%	0%	10%	0%	20%	0%	90%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	20	60	100	10	50	20	100
LT Vol	10	0	60	0	10	0	20	0
Through Vol	0	10	0	90	0	40	0	10
RT Vol	0	10	0	10	0	10	0	90
Lane Flow Rate	11	21	64	106	11	53	21	106
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.017	0.029	0.097	0.145	0.016	0.073	0.033	0.134
Departure Headway (Hd)	5.749	4.895	5.474	4.902	5.58	4.937	5.66	4.526
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	624	733	656	733	642	726	634	794
Service Time	3.472	2.617	3.197	2.625	3.306	2.663	3.379	2.244
HCM Lane V/C Ratio	0.018	0.029	0.098	0.145	0.017	0.073	0.033	0.134
HCM Control Delay	8.6	7.8	8.8	8.5	8.4	8.1	8.6	7.9
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.3	0.5	0	0.2	0.1	0.5

**Intersection**

Intersection Delay, s/veh  
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	10	90
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	21	11	96
Number of Lanes	0	1	1	0

**Approach** SB

Opposing Approach	NB
Opposing Lanes	2
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  
40: Pole Line Rd & E 5th St

E+P MRIC Mixed-Use  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	210	250	110	170	230	180	340	200	140	270	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	1776	1816	1900	1810	1837	1900	1863	1863	1900	1863	1863	1827
Adj Flow Rate, veh/h	85	223	0	117	181	0	191	362	0	149	287	0
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	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, %	7	3	3	5	4	4	2	2	2	2	2	4
Cap, veh/h	105	545	0	149	560	0	250	516	0	197	460	383
Arrive On Green	0.06	0.16	0.00	0.09	0.16	0.00	0.14	0.28	0.00	0.11	0.25	0.00
Sat Flow, veh/h	1691	3541	0	1723	3582	0	1774	1863	0	1774	1863	1553
Grp Volume(v), veh/h	85	223	0	117	181	0	191	362	0	149	287	0
Grp Sat Flow(s),veh/h/ln	1691	1725	0	1723	1745	0	1774	1863	0	1774	1863	1553
Q Serve(g_s), s	2.3	2.7	0.0	3.1	2.1	0.0	4.8	8.1	0.0	3.8	6.3	0.0
Cycle Q Clear(g_c), s	2.3	2.7	0.0	3.1	2.1	0.0	4.8	8.1	0.0	3.8	6.3	0.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	105	545	0	149	560	0	250	516	0	197	460	383
V/C Ratio(X)	0.81	0.41	0.00	0.79	0.32	0.00	0.76	0.70	0.00	0.76	0.62	0.00
Avail Cap(c_a), veh/h	366	1939	0	410	1887	0	614	846	0	614	846	705
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.4	17.5	0.0	20.7	17.2	0.0	19.1	15.0	0.0	19.9	15.5	0.0
Incr Delay (d2), s/veh	5.4	0.2	0.0	3.4	0.1	0.0	4.8	0.7	0.0	5.8	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(-26165%),veh/ln	1.2	1.3	0.0	1.6	1.0	0.0	2.7	4.2	0.0	2.1	3.3	0.0
LnGrp Delay(d),s/veh	26.8	17.7	0.0	24.1	17.3	0.0	23.9	15.7	0.0	25.7	16.0	0.0
LnGrp LOS	C	B		C	B		C	B		C	B	
Approach Vol, veh/h		308			298			553			436	
Approach Delay, s/veh		20.2			20.0			18.5			19.3	
Approach LOS		C			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	8.0	12.3	10.5	15.4	7.9	12.4	9.1	16.8				
Change Period (Y+Rc), s	4.0	* 5	4.0	4.0	5.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	* 26	16.0	21.0	10.0	25.0	16.0	21.0				
Max Q Clear Time (g_c+I1), s	5.1	4.7	6.8	8.3	4.3	4.1	5.8	10.1				
Green Ext Time (p_c), s	0.1	1.7	0.3	2.3	0.0	1.7	0.3	2.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			19.3									
HCM 2010 LOS			B									
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												



















HCM 2010 Signalized Intersection Summary  
 41: L St & E 5th St

E+P MRIC Mixed-Use  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	380	120	70	380	50	100	210	110	50	120	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		0.92	1.00		0.96	1.00		0.92	1.00		0.90
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	1863	1783	1900	1727	1863	1863	1863	1863	1667	1863	1863	1863
Adj Flow Rate, veh/h	106	404	128	74	404	53	106	223	117	53	128	74
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	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, %	2	8	8	10	2	2	2	2	14	2	2	2
Cap, veh/h	136	494	156	102	697	568	136	365	255	90	316	241
Arrive On Green	0.08	0.39	0.39	0.06	0.37	0.37	0.08	0.20	0.20	0.05	0.17	0.17
Sat Flow, veh/h	1774	1269	402	1645	1863	1519	1774	1863	1301	1774	1863	1417
Grp Volume(v), veh/h	106	0	532	74	404	53	106	223	117	53	128	74
Grp Sat Flow(s),veh/h/ln	1774	0	1671	1645	1863	1519	1774	1863	1301	1774	1863	1417
Q Serve(g_s), s	3.2	0.0	15.6	2.4	9.4	1.2	3.2	6.0	4.3	1.6	3.3	2.5
Cycle Q Clear(g_c), s	3.2	0.0	15.6	2.4	9.4	1.2	3.2	6.0	4.3	1.6	3.3	2.5
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	0	650	102	697	568	136	365	255	90	316	241
V/C Ratio(X)	0.78	0.00	0.82	0.73	0.58	0.09	0.78	0.61	0.46	0.59	0.40	0.31
Avail Cap(c_a), veh/h	260	0	935	241	701	571	260	889	621	260	547	416
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	24.7	0.0	14.9	25.1	13.6	11.1	24.7	20.0	19.4	25.3	20.2	19.8
Incr Delay (d2), s/veh	3.6	0.0	2.5	3.7	0.8	0.0	3.6	0.6	0.5	2.3	0.3	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(-26165%),veh/ln	1.7	0.0	7.5	1.2	5.0	0.5	1.7	3.1	1.6	0.8	1.7	1.0
LnGrp Delay(d),s/veh	28.3	0.0	17.4	28.8	14.4	11.1	28.3	20.6	19.8	27.6	20.5	20.1
LnGrp LOS	C		B	C	B	B	C	C	B	C	C	C
Approach Vol, veh/h		638			531			446			255	
Approach Delay, s/veh		19.2			16.1			22.3			21.8	
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	7.4	25.7	8.2	13.3	8.2	24.9	6.8	14.7				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	8.0	30.5	8.0	16.0	8.0	20.5	8.0	26.0				
Max Q Clear Time (g_c+I1), s	4.4	17.6	5.2	5.3	5.2	11.4	3.6	8.0				
Green Ext Time (p_c), s	0.0	3.6	0.0	1.4	0.0	3.0	0.0	1.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			19.4									
HCM 2010 LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary  
57: Pole Line Rd & Bike Dummy/Loyola Dr

E+P MRIC Mixed-Use  
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	60	0	110	0	430	100	100	340	0
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		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	0	1863	0	1863	0	1863	0	1841	1900	1810	1845	0
Adj Flow Rate, veh/h	0	0	0	64	0	117	0	457	106	106	362	0
Adj No. of Lanes	0	1	0	1	0	1	0	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, %	0	2	0	2	0	2	0	3	3	5	3	0
Cap, veh/h	0	6	0	76	0	0	0	676	157	131	1238	0
Arrive On Green	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.47	0.47	0.08	0.67	0.00
Sat Flow, veh/h	0	-55882	0	1774	64		0	1437	333	1723	1845	0
Grp Volume(v), veh/h	0	0	0	64	24.3		0	0	563	106	362	0
Grp Sat Flow(s),veh/h/ln	0	1863	0	1774	C		0	0	1770	1723	1845	0
Q Serve(g_s), s	0.0	0.0	0.0	1.2			0.0	0.0	7.9	1.9	2.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.2			0.0	0.0	7.9	1.9	2.6	0.0
Prop In Lane	0.00		0.00	1.00			0.00		0.19	1.00		0.00
Lane Grp Cap(c), veh/h	0	6	0	76			0	0	832	131	1238	0
V/C Ratio(X)	0.00	0.00	0.00	0.84			0.00	0.00	0.68	0.81	0.29	0.00
Avail Cap(c_a), veh/h	0	406	0	320			0	0	1377	215	1435	0
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)	0.00	0.00	0.00	1.00			0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	15.3			0.0	0.0	6.6	14.6	2.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	9.0			0.0	0.0	0.4	4.4	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
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.0	0.7			0.0	0.0	3.8	1.1	1.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	24.3			0.0	0.0	7.0	19.0	2.2	0.0
LnGrp LOS				C					A	B	A	
Approach Vol, veh/h		0						563			468	
Approach Delay, s/veh		0.0						7.0			6.0	
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	6.4	20.1	5.6	0.0		26.6						
Change Period (Y+Rc), s	4.0	5.0	* 4.2	3.0		5.0						
Max Green Setting (Gmax), s	4.0	25.0	* 5.8	7.0		25.0						
Max Q Clear Time (g_c+I1), s	3.9	9.9	3.2	0.0		4.6						
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0		4.4						
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			7.6									
HCM 2010 LOS			A									
<b>Notes</b>												
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.												

**Intersection**

Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	40	10	30	0	20	30	10	0	50	140	30
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	43	11	32	0	21	32	11	0	53	149	32
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	8.5	8.4	9.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	50%	33%	6%
Vol Thru, %	64%	12%	50%	69%
Vol Right, %	14%	38%	17%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	220	80	60	160
LT Vol	50	40	20	10
Through Vol	140	10	30	110
RT Vol	30	30	10	40
Lane Flow Rate	234	85	64	170
Geometry Grp	1	1	1	1
Degree of Util (X)	0.289	0.113	0.087	0.209
Departure Headway (Hd)	4.451	4.799	4.919	4.422
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	807	746	727	812
Service Time	2.477	2.839	2.96	2.45
HCM Lane V/C Ratio	0.29	0.114	0.088	0.209
HCM Control Delay	9.3	8.5	8.4	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.2	0.4	0.3	0.8

**Intersection**

Intersection Delay, s/veh  
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	10	110	40
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	3
Mvmt Flow	0	11	117	43
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	8.6
HCM LOS	A

**Lane**



**Intersection**

Int Delay, s/veh 0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	20	30	10	480	440	50
Conflicting Peds, #/hr	0	3	0	0	0	7
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	4	3	6	3	4
Mvmt Flow	21	32	11	511	468	53

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1030	498	524 0
Stage 1	498	-	- -
Stage 2	532	-	- -
Critical Hdwy	6.42	6.24	4.13 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.336	2.227 -
Pot Cap-1 Maneuver	259	568	1038 -
Stage 1	611	-	- -
Stage 2	589	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	255	567	1038 -
Mov Cap-2 Maneuver	388	-	- -
Stage 1	609	-	- -
Stage 2	581	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	13.5	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1038	-	479	-	-
HCM Lane V/C Ratio	0.01	-	0.111	-	-
HCM Control Delay (s)	8.5	-	13.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

**Intersection**

Int Delay, s/veh 6.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	120	120	180	170	270	80
Conflicting Peds, #/hr	0	0	0	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	-	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	128	128	191	181	287	85

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	851	287	0
Stage 1	287	-	-
Stage 2	564	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	330	752	1275
Stage 1	762	-	-
Stage 2	569	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	275	752	1275
Mov Cap-2 Maneuver	275	-	-
Stage 1	762	-	-
Stage 2	474	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.9	4.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1275	-	275	752	-	-
HCM Lane V/C Ratio	0.15	-	0.464	0.17	-	-
HCM Control Delay (s)	8.3	0	28.9	10.8	-	-
HCM Lane LOS	A	A	D	B	-	-
HCM 95th %tile Q(veh)	0.5	-	2.3	0.6	-	-

**Intersection**

Int Delay, s/veh 7.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	310	70	50	30	20
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	330	74	53	32	21

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	245	43	53 0
Stage 1	43	-	- -
Stage 2	202	-	- -
Critical Hdwy	6.42	6.22	4.12 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.318	2.218 -
Pot Cap-1 Maneuver	743	1027	1553 -
Stage 1	979	-	- -
Stage 2	832	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	707	1027	1553 -
Mov Cap-2 Maneuver	707	-	- -
Stage 1	979	-	- -
Stage 2	791	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	10.3	4.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1553	-	1013	-	-
HCM Lane V/C Ratio	0.048	-	0.336	-	-
HCM Control Delay (s)	7.4	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.5	-	-

**Intersection**

Int Delay, s/veh 5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	330	0	20	10	120	70
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	351	0	21	11	128	74

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	351
Stage 1	-	-	351
Stage 2	-	-	53
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	6.42
Critical Hdwy Stg 2	-	-	6.22
Follow-up Hdwy	-	-	5.42
Pot Cap-1 Maneuver	-	-	2.218
Stage 1	-	-	1208
Stage 2	-	-	3.518
Platoon blocked, %	-	-	3.318
Mov Cap-1 Maneuver	-	-	603
Stage 1	-	-	692
Stage 2	-	-	713
Mov Cap-2 Maneuver	-	-	970
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.4	13.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	626	-	-	1208	-
HCM Lane V/C Ratio	0.323	-	-	0.018	-
HCM Control Delay (s)	13.5	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.4	-	-	0.1	-

**Intersection**

Int Delay, s/veh 3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	190	20	50	300	10	20
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	202	21	53	319	11	21

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	372	0	639
Stage 1	-	-	213
Stage 2	-	-	426
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1186	-	440
Stage 1	-	-	823
Stage 2	-	-	659
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1186	-	364
Mov Cap-2 Maneuver	-	-	364
Stage 1	-	-	823
Stage 2	-	-	546

Approach	EB	WB	SB
HCM Control Delay, s	7.8	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1186	-	-	-	581
HCM Lane V/C Ratio	0.17	-	-	-	0.055
HCM Control Delay (s)	8.7	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.6	-	-	-	0.2

Intersection			
Intersection Delay, s/veh	13.9		
Intersection LOS	B		
Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	191	606	479
Demand Flow Rate, veh/h	195	618	489
Vehicles Circulating, veh/h	185	87	477
Vehicles Exiting, veh/h	781	293	228
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.0	11.6	19.9
Approach LOS	A	B	C
Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	195	618	489
Cap Entry Lane, veh/h	939	1036	701
Entry HV Adj Factor	0.979	0.980	0.980
Flow Entry, veh/h	191	606	479
Cap Entry, veh/h	919	1015	687
V/C Ratio	0.208	0.597	0.697
Control Delay, s/veh	6.0	11.6	19.9
LOS	A	B	C
95th %tile Queue, veh	1	4	6

Intersection												
Int Delay, s/veh	1.7											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	10	10	110	60	70	0	0	360	360
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	75	-	-	-	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	11	11	117	64	74	0	0	383	383

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	393	585	37	383	0	0	74	0	0
Stage 1	202	202	-	-	-	-	-	-	-
Stage 2	191	383	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	584	421	1027	1172	-	-	1524	-	-
Stage 1	812	733	-	-	-	-	-	-	-
Stage 2	822	610	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	552	0	1027	1172	-	-	1524	-	-
Mov Cap-2 Maneuver	552	0	-	-	-	-	-	-	-
Stage 1	768	0	-	-	-	-	-	-	-
Stage 2	822	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	3.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1172	-	-	552	1214	1524	-	-
HCM Lane V/C Ratio	0.054	-	-	0.029	0.101	-	-	-
HCM Control Delay (s)	8.2	-	-	11.7	8.3	0	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.3	0	-	-

Intersection												
Int Delay, s/veh	7.9											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	60	10	30	0	0	0	0	70	40	340	30	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	325	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	11	32	0	0	0	0	74	43	362	32	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	851	872	16	32	0	0	117	0	0
Stage 1	755	755	-	-	-	-	-	-	-
Stage 2	96	117	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.53	6.93	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	5.83	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	2.22	-	-	2.218	-	-
Pot Cap-1 Maneuver	314	288	1060	1579	-	-	1471	-	-
Stage 1	426	416	-	-	-	-	-	-	-
Stage 2	927	798	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	237	0	1060	1579	-	-	1471	-	-
Mov Cap-2 Maneuver	237	0	-	-	-	-	-	-	-
Stage 1	321	0	-	-	-	-	-	-	-
Stage 2	927	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.8	0	7.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1579	-	-	237	3533	1471	-	-
HCM Lane V/C Ratio	-	-	-	0.269	0.012	0.246	-	-
HCM Control Delay (s)	0	-	-	25.7	6	8.2	-	-
HCM Lane LOS	A	-	-	D	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.1	0	1	-	-



**Intersection**

Int Delay, s/veh 0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	50	710	40	0	560
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	54	772	43	0	609

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1402	793	0	0	815	0
Stage 1	793	-	-	-	-	-
Stage 2	609	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	154	389	-	-	812	-
Stage 1	446	-	-	-	-	-
Stage 2	543	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	154	389	-	-	812	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	446	-	-	-	-	-
Stage 2	543	-	-	-	-	-

Approach	WB	WB	NB	NB	SB	SB
HCM Control Delay, s	15.8	15.8	0	0	0	0
HCM LOS	C	C	A	A	A	A

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	389	812	-
HCM Lane V/C Ratio	-	-	0.14	-	-
HCM Control Delay (s)	-	-	15.8	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Intersection												
Int Delay, s/veh	3.9											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	280	20	10	180	10	50	0	20	30	0	70
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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	304	22	11	196	11	54	0	22	33	0	76

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	207	0	0	326	0	0	663	630	315	636	636	201
Stage 1	-	-	-	-	-	-	402	402	-	223	223	-
Stage 2	-	-	-	-	-	-	261	228	-	413	413	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1364	-	-	1234	-	-	375	399	725	391	395	840
Stage 1	-	-	-	-	-	-	625	600	-	780	719	-
Stage 2	-	-	-	-	-	-	744	715	-	616	594	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1364	-	-	1234	-	-	331	383	725	368	379	840
Mov Cap-2 Maneuver	-	-	-	-	-	-	331	383	-	368	379	-
Stage 1	-	-	-	-	-	-	605	581	-	755	713	-
Stage 2	-	-	-	-	-	-	671	709	-	579	575	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.4	16.4	12.2
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	392	1364	-	-	1234	-	-	607
HCM Lane V/C Ratio	0.194	0.032	-	-	0.009	-	-	0.179
HCM Control Delay (s)	16.4	7.7	-	-	7.9	-	-	12.2
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0	-	-	0.6

**Intersection**

Int Delay, s/veh 2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	30	300	130	20	40	70
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	326	141	22	43	76

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	163	0	152
Stage 1	-	-	152
Stage 2	-	-	391
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1416	-	894
Stage 1	-	-	876
Stage 2	-	-	683
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1416	-	894
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	876
Stage 2	-	-	667

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1416	-	-	-	489	894
HCM Lane V/C Ratio	0.023	-	-	-	0.089	0.085
HCM Control Delay (s)	7.6	-	-	-	13.1	9.4
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	0.3

**Intersection**

Int Delay, s/veh 36.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	140	110	710	50	50	420
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	-	-	-	75	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	152	120	772	54	54	457

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1364	799	0 0 826 0
Stage 1	799	-	- - - -
Stage 2	565	-	- - - -
Critical Hdwy	6.42	6.22	- - 4.12 -
Critical Hdwy Stg 1	5.42	-	- - - -
Critical Hdwy Stg 2	5.42	-	- - - -
Follow-up Hdwy	3.518	3.318	- - 2.218 -
Pot Cap-1 Maneuver	163	386	- - 805 -
Stage 1	443	-	- - - -
Stage 2	569	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	~ 152	386	- - 805 -
Mov Cap-2 Maneuver	~ 152	-	- - - -
Stage 1	443	-	- - - -
Stage 2	531	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	216.2	0	1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 207	805	-
HCM Lane V/C Ratio	-	- 1.313	0.068	-
HCM Control Delay (s)	-	- 216.2	9.8	-
HCM Lane LOS	-	- F	A	-
HCM 95th %tile Q(veh)	-	- 14.9	0.2	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

## **J.4 – INTERSECTION ANALYSIS – INTERSECTIONS WITHIN MACE BOULEVARD INTERCHANGE AREA (SIMTRAFFIC)**

- A. Existing
- B. Existing Plus Project
- C. Existing Plus Phase 1
- D. Existing Plus Mixed-Use Alternative
- E. CEQA Cumulative No Project
- F. CEQA Cumulative Plus Project
- G. CEQA Cumulative Plus Mixed-Use Alternative
- H. Modified Cumulative No Project
- I. Modified Cumulative Plus Project
- J. Modified Cumulative Plus Mixed-Use Alternative



## **J.4.A – EXISTING CONDITIONS**



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

**Mace Ranch IC**  
**Existing No Project**  
**AM Peak Hour**

**Intersection 3**                      **Mace Blvd/Chiles Rd**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	27	28	103.7%	34.7	2.7	C
	Through	566	569	100.5%	22.7	1.1	C
	Right Turn	49	51	104.9%	4.7	1.0	A
	Subtotal	642	648	101.0%	21.7	1.0	C
SB	Left Turn	142	141	99.5%	30.8	2.2	C
	Through	231	228	98.6%	13.7	0.8	B
	Right Turn	250	252	100.8%	3.4	0.2	A
	Subtotal	623	621	99.7%	13.4	0.9	B
EB	Left Turn	427	428	100.2%	32.9	3.3	C
	Through	119	122	102.4%	15.7	1.7	B
	Right Turn	90	90	100.3%	2.6	0.1	A
	Subtotal	636	640	100.6%	25.3	2.5	C
WB	Left Turn	15	13	89.3%	33.5	4.9	C
	Through	55	53	95.8%	26.3	2.5	C
	Right Turn	281	284	100.9%	10.5	0.9	B
	Subtotal	351	350	99.6%	13.7	1.0	B
Total		2,252	2,259	100.3%	19.2	0.9	B

**Intersection 104**                      **Mace Blvd/I-80 EB Ramps**                      **Uncontrolled**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	865	873	100.9%	2.3	0.1	A
	Right Turn	412	411	99.7%	1.8	0.1	A
	Subtotal	1,277	1,284	100.5%	2.1	0.1	A
SB	Left Turn						
	Through	623	620	99.6%	1.9	0.1	A
	Right Turn	642	631	98.3%	4.0	0.1	A
	Subtotal	1,265	1,252	98.9%	2.9	0.0	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,542	2,536	99.7%	2.5	0.1	A

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

**Mace Ranch IC**  
**Existing No Project**  
**AM Peak Hour**

**Intersection 4**

**Mace Blvd/I-80 WB Ramps**

**Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	350	355	101.5%	26.6	1.6	C
	Through	515	516	100.1%	8.5	2.6	A
	Right Turn						
	Subtotal	865	871	100.7%	15.9	2.0	B
SB	Left Turn						
	Through	952	946	99.4%	25.8	4.8	C
	Right Turn	180	181	100.4%	8.1	2.2	A
	Subtotal	1,132	1,127	99.6%	22.9	4.4	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	313	305	97.5%	23.8	1.6	C
	Through	1	1	120.0%	17.2	14.6	B
	Right Turn	542	535	98.8%	7.9	5.8	A
	Subtotal	856	842	98.3%	13.7	3.4	B
<b>Total</b>		<b>2,853</b>	<b>2,840</b>	<b>99.5%</b>	<b>18.1</b>	<b>1.9</b>	<b>B</b>

**Intersection 5**

**Mace Blvd/2nd St-Co Rd 32A**

**Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	562	534	95.0%	107.9	13.8	F
	Through	475	473	99.6%	9.0	0.9	A
	Right Turn	20	22	110.5%	5.3	1.2	A
	Subtotal	1,057	1,029	97.4%	60.3	7.9	E
SB	Left Turn	42	43	103.1%	40.5	5.7	D
	Through	866	860	99.3%	23.7	1.5	C
	Right Turn	74	78	104.9%	2.2	0.1	A
	Subtotal	982	981	99.9%	22.8	1.3	C
EB	Left Turn	30	31	102.7%	37.7	4.9	D
	Through	18	17	91.7%	32.7	6.7	C
	Right Turn	256	252	98.5%	3.5	0.3	A
	Subtotal	304	300	98.5%	8.6	1.1	A
WB	Left Turn	10	11	106.0%	43.9	7.2	D
	Through	60	61	102.3%	35.2	2.7	D
	Right Turn	11	12	106.4%	13.5	4.3	B
	Subtotal	81	84	103.3%	33.2	2.5	C
<b>Total</b>		<b>2,424</b>	<b>2,394</b>	<b>98.7%</b>	<b>37.5</b>	<b>3.6</b>	<b>D</b>



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

**Mace Ranch IC**  
**Existing No Project**  
**AM Peak Hour**

**Intersection 6**                      **Mace Blvd/Alhambra Dr**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	141	137	97.2%	9.9	0.6	A
	Through	372	374	100.6%	1.6	0.3	A
	Right Turn						
	Subtotal	513	511	99.7%	3.8	0.4	A
SB	Left Turn						
	Through	602	614	102.0%	4.0	0.5	A
	Right Turn	8	9	108.8%	2.8	0.4	A
	Subtotal	610	623	102.1%	4.0	0.5	A
EB	Left Turn	10	11	105.0%	16.1	4.0	B
	Through						
	Right Turn	379	372	98.2%	3.5	0.2	A
	Subtotal	389	383	98.4%	3.8	0.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
<b>Total</b>		<b>1,512</b>	<b>1,517</b>	<b>100.3%</b>	<b>3.9</b>	<b>0.3</b>	<b>A</b>

**Intersection 103**                      **I-80 EB On-ramp/Chiles Rd**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	255	251	98.5%	6.1	0.3	A
	Through						
	Right Turn	88	88	99.5%	3.4	0.3	A
	Subtotal	343	339	98.7%	5.4	0.2	A
EB	Left Turn						
	Through	381	388	101.8%	6.5	0.6	A
	Right Turn						
	Subtotal	381	388	101.8%	6.5	0.6	A
WB	Left Turn						
	Through	332	334	100.5%	9.1	0.5	A
	Right Turn						
	Subtotal	332	334	100.5%	9.1	0.5	A
<b>Total</b>		<b>1,056</b>	<b>1,060</b>	<b>100.4%</b>	<b>6.9</b>	<b>0.3</b>	<b>A</b>

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

**Mace Ranch IC**  
**Existing No Project**  
**PM Peak Hour**

**Intersection 3**                      **Mace Blvd/Chiles Rd**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	21	22	104.8%	33.5	2.6	C
	Through	408	414	101.4%	20.8	1.3	C
	Right Turn	87	87	99.5%	4.1	0.6	A
	Subtotal	516	522	101.2%	18.5	1.2	B
SB	Left Turn	193	190	98.3%	34.6	4.2	C
	Through	451	469	103.9%	13.6	1.0	B
	Right Turn	286	287	100.5%	3.6	0.1	A
	Subtotal	930	946	101.7%	14.8	1.2	B
EB	Left Turn	450	447	99.2%	28.9	3.2	C
	Through	197	188	95.3%	19.4	1.9	B
	Right Turn	130	131	100.9%	2.7	0.1	A
	Subtotal	777	766	98.5%	22.1	2.1	C
WB	Left Turn	41	39	94.1%	29.3	3.0	C
	Through	40	42	104.5%	28.8	3.8	C
	Right Turn	199	201	101.1%	7.3	0.6	A
	Subtotal	280	282	100.5%	13.4	0.7	B
Total		2,503	2,515	100.5%	17.6	0.9	B

**Intersection 104**                      **Mace Blvd/I-80 EB Ramps**                      **Uncontrolled**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	801	801	100.0%	1.9	0.1	A
	Right Turn	259	263	101.6%	1.8	0.2	A
	Subtotal	1,060	1,064	100.4%	1.9	0.1	A
SB	Left Turn						
	Through	930	945	101.6%	2.0	0.1	A
	Right Turn	470	464	98.8%	3.8	0.1	A
	Subtotal	1,400	1,410	100.7%	2.6	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,460	2,474	100.6%	2.3	0.1	A

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

**Mace Ranch IC**  
**Existing No Project**  
**PM Peak Hour**

**Intersection 4**

**Mace Blvd/I-80 WB Ramps**

**Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	228	230	101.1%	26.3	1.7	C
	Through	573	575	100.4%	7.1	0.6	A
	Right Turn						
	Subtotal	801	806	100.6%	12.6	0.7	B
SB	Left Turn						
	Through	957	964	100.7%	18.0	1.2	B
	Right Turn	210	208	99.0%	4.9	0.2	A
	Subtotal	1,167	1,172	100.4%	15.7	1.2	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	443	448	101.1%	20.5	0.7	C
	Through	1	1	90.0%	17.7	12.0	B
	Right Turn	740	739	99.9%	6.6	0.5	A
	Subtotal	1,184	1,188	100.3%	11.8	0.4	B
Total		3,152	3,165	100.4%	13.5	0.5	B

**Intersection 5**

**Mace Blvd/2nd St-Co Rd 32A**

**Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	460	462	100.4%	53.8	14.1	D
	Through	803	800	99.6%	15.7	1.3	B
	Right Turn	50	56	111.6%	13.8	2.1	B
	Subtotal	1,313	1,317	100.3%	29.0	5.4	C
SB	Left Turn	85	89	104.7%	38.2	3.4	D
	Through	529	534	100.9%	25.9	1.7	C
	Right Turn	83	85	102.9%	2.3	0.1	A
	Subtotal	697	708	101.6%	24.6	1.4	C
EB	Left Turn	146	149	102.1%	32.9	1.8	C
	Through	141	143	101.1%	29.8	2.7	C
	Right Turn	596	604	101.3%	7.9	0.7	A
	Subtotal	883	896	101.4%	15.6	0.9	B
WB	Left Turn	42	37	89.0%	38.2	4.2	D
	Through	26	27	104.6%	40.2	5.8	D
	Right Turn	42	44	105.5%	14.5	4.1	B
	Subtotal	110	109	99.0%	29.1	4.1	C
Total		3,003	3,030	100.9%	24.0	2.5	C

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

**Mace Ranch IC**  
**Existing No Project**  
**PM Peak Hour**

**Intersection 6**                      **Mace Blvd/Alhambra Dr**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	286	282	98.5%	12.4	1.0	B
	Through	679	683	100.6%	3.3	0.2	A
	Right Turn						
	Subtotal	965	965	100.0%	6.0	0.4	A
SB	Left Turn						
	Through	495	496	100.2%	5.0	0.4	A
	Right Turn	12	12	101.7%	2.7	0.2	A
	Subtotal	507	508	100.2%	4.9	0.4	A
EB	Left Turn	7	7	100.0%	18.7	3.7	B
	Through						
	Right Turn	202	209	103.5%	2.7	0.1	A
	Subtotal	209	216	103.4%	3.2	0.3	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
<b>Total</b>		<b>1,681</b>	<b>1,689</b>	<b>100.5%</b>	<b>5.3</b>	<b>0.3</b>	<b>A</b>

**Intersection 103**                      **I-80 EB On-ramp/Chiles Rd**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	346	343	99.1%	6.2	0.3	A
	Through						
	Right Turn	86	87	100.8%	3.5	0.2	A
	Subtotal	432	430	99.5%	5.6	0.2	A
EB	Left Turn						
	Through	431	424	98.4%	7.5	0.6	A
	Right Turn						
	Subtotal	431	424	98.4%	7.5	0.6	A
WB	Left Turn						
	Through	347	352	101.6%	9.9	0.4	A
	Right Turn						
	Subtotal	347	352	101.6%	9.9	0.4	A
<b>Total</b>		<b>1,210</b>	<b>1,206</b>	<b>99.7%</b>	<b>7.5</b>	<b>0.2</b>	<b>A</b>

**J.4.B – EXISTING PLUS PROJECT**



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

**Mace Ranch IC**  
**Existing with Project**  
**AM Peak Hour**

**Intersection 3**                      **Mace Blvd/Chiles Rd**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	31	33	107.4%	33.9	1.8	C
	Through	447	450	100.7%	21.1	1.2	C
	Right Turn	71	75	105.9%	4.5	0.7	A
	Subtotal	549	559	101.8%	19.6	0.9	B
SB	Left Turn	127	90	71.0%	28.3	1.7	C
	Through	161	120	74.3%	14.1	0.8	B
	Right Turn	164	123	75.0%	2.7	0.2	A
	Subtotal	452	333	73.6%	13.8	0.6	B
EB	Left Turn	609	614	100.8%	55.6	10.4	E
	Through	116	113	97.7%	13.0	1.9	B
	Right Turn	92	91	98.4%	2.6	0.2	A
	Subtotal	817	818	100.1%	43.9	8.3	D
WB	Left Turn	15	13	89.3%	31.8	5.8	C
	Through	75	77	102.7%	24.1	1.9	C
	Right Turn	273	275	100.7%	11.0	1.8	B
	Subtotal	363	365	100.6%	14.5	1.4	B
<b>Total</b>		<b>2,181</b>	<b>2,074</b>	<b>95.1%</b>	<b>27.4</b>	<b>3.4</b>	<b>C</b>

**Intersection 104**                      **Mace Blvd/I-80 EB Ramps**                      **Uncontrolled**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	902	908	100.6%	1.9	0.1	A
	Right Turn	430	434	100.8%	1.7	0.1	A
	Subtotal	1,332	1,341	100.7%	1.9	0.1	A
SB	Left Turn						
	Through	452	331	73.3%	1.7	0.1	A
	Right Turn	744	680	91.4%	3.8	0.1	A
	Subtotal	1,196	1,011	84.5%	3.1	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
<b>Total</b>		<b>2,528</b>	<b>2,353</b>	<b>93.1%</b>	<b>2.4</b>	<b>0.1</b>	<b>A</b>

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

**Mace Ranch IC**  
**Existing with Project**  
**AM Peak Hour**

**Intersection 4**                      **Mace Blvd/I-80 WB Ramps**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	370	372	100.6%	20.0	1.0	C
	Through	532	536	100.8%	6.4	1.2	A
	Right Turn						
	Subtotal	902	909	100.7%	12.0	0.9	B
SB	Left Turn						
	Through	965	883	91.5%	16.4	2.6	B
	Right Turn	206	186	90.3%	5.7	0.8	A
	Subtotal	1,171	1,069	91.3%	14.5	2.3	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	231	128	55.3%	68.9	4.0	E
	Through	1	1	60.0%	41.4	50.7	D
	Right Turn	1,540	852	55.3%	173.2	6.6	F
	Subtotal	1,772	980	55.3%	159.5	5.8	F
<b>Total</b>		<b>3,845</b>	<b>2,957</b>	<b>76.9%</b>	<b>61.8</b>	<b>1.0</b>	<b>E</b>

**Intersection 5**                      **Mace Blvd/2nd St-Co Rd 32A**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	555	367	66.1%	85.5	12.6	F
	Through	1,103	708	64.2%	141.9	3.3	F
	Right Turn	414	246	59.5%	140.4	7.8	F
	Subtotal	2,072	1,322	63.8%	126.1	5.2	F
SB	Left Turn	58	48	82.4%	41.2	4.3	D
	Through	815	705	86.5%	23.6	2.5	C
	Right Turn	32	29	90.0%	2.0	0.1	A
	Subtotal	905	781	86.3%	23.9	2.4	C
EB	Left Turn	36	36	98.9%	72.1	23.3	E
	Through	23	23	99.6%	36.8	4.9	D
	Right Turn	280	285	101.6%	3.8	0.4	A
	Subtotal	339	343	101.2%	13.2	3.5	B
WB	Left Turn	76	76	100.0%	34.2	3.9	C
	Through	67	69	103.0%	38.5	3.0	D
	Right Turn	15	14	93.3%	28.0	7.7	C
	Subtotal	158	159	100.6%	35.5	2.7	D
<b>Total</b>		<b>3,474</b>	<b>2,605</b>	<b>75.0%</b>	<b>75.0</b>	<b>3.2</b>	<b>E</b>

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

**Mace Ranch IC**  
**Existing with Project**  
**AM Peak Hour**

**Intersection 6**                      **Mace Blvd/Alhambra Dr**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	21	13	60.5%	58.8	13.2	E
	Through	336	219	65.0%	67.9	2.5	E
	Right Turn	794	519	65.3%	57.4	2.3	E
	Subtotal	1,151	750	65.2%	60.5	2.2	E
SB	Left Turn	511	342	66.9%	349.5	5.6	F
	Through	405	280	69.2%	22.3	2.5	C
	Right Turn	9	6	71.1%	5.5	2.7	A
	Subtotal	925	629	68.0%	200.5	11.0	F
EB	Left Turn	20	20	98.5%	55.8	6.9	E
	Through	91	95	104.5%	55.3	2.5	E
	Right Turn	330	333	100.9%	3.3	0.2	A
	Subtotal	441	448	101.5%	16.6	1.1	B
WB	Left Turn	169	163	96.4%	55.6	2.2	E
	Through	14	16	114.3%	54.1	7.3	D
	Right Turn	45	43	96.4%	13.6	4.2	B
	Subtotal	228	222	97.5%	47.3	2.1	D
<b>Total</b>		<b>2,745</b>	<b>2,049</b>	<b>74.6%</b>	<b>92.3</b>	<b>2.7</b>	<b>F</b>

**Intersection 103**                      **I-80 EB On-ramp/Chiles Rd**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	476	471	98.9%	6.8	0.6	A
	Through						
	Right Turn	99	104	104.7%	2.9	0.3	A
	Subtotal	575	574	99.9%	6.1	0.6	A
EB	Left Turn						
	Through	341	346	101.5%	10.6	3.4	B
	Right Turn						
	Subtotal	341	346	101.5%	10.6	3.4	B
WB	Left Turn						
	Through	270	235	86.9%	9.3	0.8	A
	Right Turn						
	Subtotal	270	235	86.9%	9.3	0.8	A
<b>Total</b>		<b>1,186</b>	<b>1,155</b>	<b>97.4%</b>	<b>8.1</b>	<b>1.3</b>	<b>A</b>



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

Mace Ranch IC  
Existing with Project  
PM Peak Hour

Intersection 3 Mace Blvd/Chiles Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	25	24	97.2%	40.0	8.3	D
	Through	400	396	99.1%	38.3	9.4	D
	Right Turn	95	93	97.9%	8.6	4.4	A
	Subtotal	520	514	98.8%	33.0	8.1	C
SB	Left Turn	174	118	68.0%	29.9	3.5	C
	Through	376	257	68.2%	13.7	1.3	B
	Right Turn	210	140	66.8%	2.9	0.1	A
	Subtotal	760	515	67.8%	14.5	1.0	B
EB	Left Turn	509	455	89.4%	85.7	19.4	F
	Through	210	202	96.2%	18.4	1.7	B
	Right Turn	155	152	97.7%	2.9	0.1	A
	Subtotal	874	809	92.5%	53.4	11.4	D
WB	Left Turn	41	39	96.1%	28.5	3.2	C
	Through	65	69	105.5%	26.5	2.7	C
	Right Turn	202	199	98.5%	12.0	3.2	B
	Subtotal	308	307	99.6%	17.3	2.4	B
Total		2,462	2,144	87.1%	33.9	5.7	C

Intersection 104 Mace Blvd/I-80 EB Ramps Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	761	691	90.8%	37.7	13.6	E
	Right Turn	353	346	98.1%	2.4	0.4	A
	Subtotal	1,114	1,038	93.1%	26.0	9.3	D
SB	Left Turn						
	Through	760	512	67.4%	1.7	0.1	A
	Right Turn	1,159	948	81.8%	4.5	0.1	A
	Subtotal	1,919	1,460	76.1%	3.5	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		3,033	2,498	82.3%	12.7	3.6	B

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

**Mace Ranch IC**  
**Existing with Project**  
**PM Peak Hour**

**Intersection 4**

**Mace Blvd/I-80 WB Ramps**

**Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	248	220	88.7%	91.4	19.1	F
	Through	513	435	84.8%	209.6	39.0	F
	Right Turn						
	Subtotal	761	655	86.1%	169.8	32.5	F
SB	Left Turn						
	Through	1,511	1,240	82.1%	58.0	4.4	E
	Right Turn	466	385	82.5%	30.0	2.6	C
	Subtotal	1,977	1,624	82.2%	51.4	4.1	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	408	221	54.1%	76.5	7.6	E
	Through	1	1	70.0%	34.6	57.5	C
	Right Turn	905	453	50.1%	272.4	32.0	F
	Subtotal	1,314	675	51.4%	208.0	23.4	F
<b>Total</b>		<b>4,052</b>	<b>2,954</b>	<b>72.9%</b>	<b>112.9</b>	<b>7.0</b>	<b>F</b>

**Intersection 5**

**Mace Blvd/2nd St-Co Rd 32A**

**Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	468	280	59.9%	173.1	17.5	F
	Through	820	452	55.1%	259.3	21.5	F
	Right Turn	130	70	53.7%	240.9	18.1	F
	Subtotal	1,418	802	56.6%	227.6	15.0	F
SB	Left Turn	89	75	84.7%	76.7	4.1	E
	Through	1,013	846	83.5%	102.7	6.2	F
	Right Turn	74	64	86.2%	2.3	0.1	A
	Subtotal	1,176	985	83.8%	94.3	5.8	F
EB	Left Turn	135	125	92.4%	245.0	123.5	F
	Through	141	126	89.6%	107.2	38.9	F
	Right Turn	566	523	92.4%	89.9	46.3	F
	Subtotal	842	774	91.9%	117.6	54.6	F
WB	Left Turn	398	256	64.4%	608.5	88.3	F
	Through	27	18	65.9%	540.2	81.7	F
	Right Turn	60	38	62.7%	543.2	72.5	F
	Subtotal	485	312	64.3%	597.6	85.2	F
<b>Total</b>		<b>3,921</b>	<b>2,873</b>	<b>73.3%</b>	<b>189.9</b>	<b>11.3</b>	<b>F</b>

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

Mace Ranch IC  
Existing with Project  
PM Peak Hour

Intersection 6 Mace Blvd/Alhambra Dr Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	281	160	57.0%	288.2	9.6	F
	Through	552	322	58.2%	36.6	1.4	D
	Right Turn	156	95	61.2%	31.9	2.2	C
	Subtotal	989	577	58.4%	105.7	2.4	F
SB	Left Turn	136	133	97.9%	33.1	2.6	C
	Through	235	231	98.3%	17.7	2.1	B
	Right Turn	13	11	83.1%	2.9	0.3	A
	Subtotal	384	375	97.7%	22.7	1.6	C
EB	Left Turn	8	9	117.5%	39.2	10.7	D
	Through	12	14	118.3%	35.1	5.3	D
	Right Turn	60	62	102.5%	2.2	0.1	A
	Subtotal	80	85	106.4%	11.6	2.4	B
WB	Left Turn	881	713	80.9%	152.3	12.1	F
	Through	115	94	82.1%	41.2	3.7	D
	Right Turn	223	178	79.8%	28.7	4.3	C
	Subtotal	1,219	985	80.8%	119.3	8.4	F
Total		2,672	2,022	75.7%	92.9	3.5	F

Intersection 103 I-80 EB On-ramp/Chiles Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	433	421	97.1%	25.9	19.2	C
	Through						
	Right Turn	114	115	100.9%	3.5	0.6	A
	Subtotal	547	536	97.9%	21.0	14.9	C
EB	Left Turn						
	Through	441	403	91.3%	57.3	34.7	E
	Right Turn						
	Subtotal	441	403	91.3%	57.3	34.7	E
WB	Left Turn						
	Through	300	234	78.0%	10.3	0.8	B
	Right Turn						
	Subtotal	300	234	78.0%	10.3	0.8	B
Total		1,288	1,172	91.0%	30.6	16.2	C

**J.4.C – EXISTING PLUS PHASE 1**



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

Mace Ranch IC  
E+MRIC-Phase1  
AM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	360	367	102.1%	39.1	5.0	D
	Through	570	551	96.7%	8.7	1.1	A
	Right Turn						
	Second Right						
	Subtotal	930	919	98.8%	20.9	2.4	C
SB	U Turn						
	Second Left						
	Left Turn						
	Through	950	918	96.6%	35.7	9.8	D
	Right Turn	190	176	92.8%	8.8	3.1	A
	Second Right						
	Subtotal	1,140	1,094	96.0%	31.4	8.7	C
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn	330	327	99.0%	29.1	3.2	C
	Through	10	9	92.2%	30.3	15.5	C
	Right Turn	680	666	97.9%	13.6	2.4	B
	Second Right						
	Subtotal	1,020	1,002	98.2%	18.8	1.8	B
Total		3,090	3,015	97.6%	24.1	3.9	C

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

Mace Ranch IC  
E+MRIC-Phase1  
AM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	570	551	96.6%	25.0	3.2	C
	Through	630	608	96.5%	7.8	1.5	A
	Right Turn	50	47	93.7%	4.2	2.6	A
	Second Right						
	Subtotal	1,250	1,206	96.5%	15.6	2.0	B
SB	U Turn Second Left	10	6	57.6%	34.6	25.9	C
	Left Turn	40	44	109.4%	36.9	6.4	D
	Through	860	871	101.3%	22.7	4.1	C
	Right Turn	70	73	104.8%	1.8	0.2	A
	Second Right						
	Subtotal	980	994	101.4%	21.9	3.8	C
EB	U Turn Second Left	10	7	65.3%	23.7	19.3	C
	Left Turn	30	33	110.1%	35.9	7.1	D
	Through	20	20	99.8%	34.0	10.1	C
	Right Turn	260	268	103.2%	4.1	1.0	A
	Second Right						
	Subtotal	320	328	102.5%	9.8	1.9	A
WB	U Turn Second Left						
	Left Turn	20	22	109.4%	32.2	5.2	C
	Through	70	60	86.1%	30.6	6.1	C
	Right Turn	10	10	99.8%	10.7	6.0	B
	Second Right						
	Subtotal	100	92	92.2%	28.8	5.7	C
Total		2,650	2,620	98.9%	17.8	2.4	B

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

Mace Ranch IC  
E+MRIC-Phase1  
AM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	140	134	95.5%	27.9	4.7	C
	Through	380	359	94.5%	16.1	6.6	B
	Right Turn	160	165	103.0%	12.6	4.6	B
	Second Right						
	Subtotal	680	657	96.7%	17.7	5.1	B
SB	U Turn						
	Second Left						
	Left Turn	90	91	101.5%	25.2	5.5	C
	Through	560	566	101.0%	10.3	1.7	B
	Right Turn	10	9	92.2%	2.6	1.3	A
	Second Right						
	Subtotal	660	666	100.9%	12.2	1.9	B
EB	U Turn						
	Second Left						
	Left Turn	20	24	121.0%	26.8	10.4	C
	Through	20	20	99.8%	28.5	8.6	C
	Right Turn	390	398	102.1%	3.2	0.3	A
	Second Right						
	Subtotal	430	442	102.9%	5.7	1.1	A
WB	U Turn						
	Second Left						
	Left Turn	30	32	106.2%	22.5	6.1	C
	Through	10	11	107.5%	32.6	16.2	C
	Right Turn	10	10	96.0%	5.5	3.9	A
	Second Right						
	Subtotal	50	52	104.4%	21.8	5.3	C
Total		1,820	1,818	99.9%	12.9	2.4	B

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

Mace Ranch IC  
E+MRIC-Phase1  
AM Peak Hour

Intersection 80

I-80 WB Ramps/CR 32A

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left	120	118	98.6%	5.7	0.5	A
	Left Turn						
	Through	60	59	97.9%	3.7	0.5	A
	Right Turn						
	Second Right						
Subtotal	180	177	98.3%	5.0	0.4	A	
SB	U Turn Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
Subtotal							
EB	U Turn Second Left	90	96	107.1%	0.4	0.2	A
	Left Turn						
	Through	90	96	107.1%	0.4	0.2	A
	Right Turn						
	Second Right						
Subtotal	90	96	107.1%	0.4	0.2	A	
WB	U Turn Second Left	10	8	84.5%	1.5	0.8	A
	Left Turn						
	Through	10	10	103.7%	0.4	0.9	A
	Right Turn						
	Second Right						
Subtotal	20	19	94.1%	0.9	0.6	A	
Total		290	292	100.8%	3.2	0.2	A



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

Mace Ranch IC  
E+MRIC-Phase1  
AM Peak Hour

Intersection 81

I-80 EB Ramps/CR 32B

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn	10	11	107.5%	2.1	0.3	A
	Second Right						
	Subtotal	10	11	107.5%	2.1	0.3	A
EB	U Turn						
	Second Left						
	Left Turn	160	156	97.2%	3.2	0.4	A
	Through	10	11	111.4%	1.7	1.8	A
	Right Turn						
	Second Right						
	Subtotal	170	167	98.0%	3.1	0.4	A
WB	U Turn						
	Second Left						
	Left Turn						
	Through	50	50	100.6%	0.9	0.4	A
	Right Turn	110	108	98.1%	0.7	0.2	A
	Second Right						
	Subtotal	160	158	98.9%	0.8	0.2	A
Total		340	336	98.7%	1.9	0.2	A

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

Mace Ranch IC  
E+MRIC-Phase1  
AM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	310	300	96.7%	4.7	0.7	A
	Through						
	Right Turn	90	83	92.2%	3.2	0.7	A
	Second Right						
	Subtotal	400	383	95.7%	4.4	0.6	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	390	387	99.2%	8.8	2.4	A
	Right Turn						
	Second Right						
	Subtotal	390	387	99.2%	8.8	2.4	A
WB	U Turn						
	Second Left						
	Left Turn						
	Through	340	343	100.9%	8.7	1.1	A
	Right Turn						
	Second Right						
	Subtotal	340	343	100.9%	8.7	1.1	A
Total		1,130	1,112	98.4%	7.3	1.0	A

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

Mace Ranch IC  
E+MRIC-Phase1  
AM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	930	919	98.8%	2.4	0.2	A
	Right Turn	420	420	100.0%	2.0	0.2	A
	Second Right						
	Subtotal	1,350	1,339	99.2%	2.2	0.2	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	620	612	98.7%	1.9	0.1	A
	Right Turn	660	639	96.9%	4.3	0.3	A
	Second Right						
	Subtotal	1,280	1,251	97.8%	3.1	0.2	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		2,630	2,590	98.5%	2.7	0.2	A

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

Mace Ranch IC  
E+MRIC-Phase1  
AM Peak Hour

Intersection 205

Mace Blvd/Mace Ranch IC Driveway 1

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn	410	394	96.0%	2.0	0.3	A
	Second Left						
	Left Turn						
	Through						
	Right Turn						
Second Right							
	Subtotal	410	394	96.0%	2.0	0.3	A
SB	U Turn	660	665	100.7%	0.6	0.1	A
	Second Left						
	Left Turn						
	Through						
	Right Turn						
Second Right							
	Subtotal	660	665	100.7%	0.6	0.1	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
Second Right							
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
Second Right							
	Subtotal						
Total		1,070	1,058	98.9%	1.1	0.1	A

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

Mace Ranch IC  
E+MRIC-Phase1  
PM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	230	227	98.8%	41.7	3.4	D
	Through	560	566	101.1%	11.2	2.2	B
	Right Turn						
	Second Right						
	Subtotal	790	793	100.4%	19.9	1.4	B
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,030	1,046	101.6%	30.7	5.6	C
	Right Turn	250	244	97.7%	6.1	1.0	A
	Second Right						
	Subtotal	1,280	1,291	100.8%	26.1	5.1	C
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn	450	430	95.5%	25.3	2.0	C
	Through	10	7	69.1%	24.9	16.4	C
	Right Turn	780	778	99.7%	19.5	9.0	B
	Second Right						
	Subtotal	1,240	1,214	97.9%	21.9	6.0	C
Total		3,310	3,298	99.6%	23.1	2.9	C

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

Mace Ranch IC  
E+MRIC-Phase1  
PM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	460	454	98.7%	31.6	3.5	C
	Through	820	811	99.0%	17.3	3.8	B
	Right Turn	60	60	99.2%	14.3	4.4	B
	Second Right						
	Subtotal	1,340	1,325	98.9%	22.1	3.4	C
SB	U Turn	10	8	80.6%	37.4	32.0	D
	Second Left						
	Left Turn	70	69	98.7%	38.6	6.7	D
	Through	600	613	102.1%	24.3	4.7	C
	Right Turn	80	77	96.5%	1.8	0.1	A
	Second Right						
	Subtotal	760	767	101.0%	23.5	3.9	C
EB	U Turn	40	43	107.5%	29.0	5.5	C
	Second Left						
	Left Turn	110	111	101.2%	31.3	5.6	C
	Through	150	156	103.9%	25.7	4.3	C
	Right Turn	600	619	103.2%	12.0	3.7	B
	Second Right						
	Subtotal	900	929	103.3%	17.5	2.6	B
WB	U Turn						
	Second Left						
	Left Turn	80	76	95.0%	39.6	7.5	D
	Through	30	32	107.5%	36.2	3.1	D
	Right Turn	50	54	108.3%	11.3	3.2	B
	Second Right						
	Subtotal	160	162	101.5%	29.1	3.8	C
Total		3,160	3,184	100.8%	21.4	2.5	C

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

Mace Ranch IC  
E+MRIC-Phase1  
PM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	320	325	101.6%	30.4	6.7	C
	Through	630	634	100.6%	17.5	3.8	B
	Right Turn	40	43	107.5%	14.2	5.6	B
	Second Right						
	Subtotal	990	1,002	101.2%	21.5	4.4	C
SB	U Turn						
	Second Left						
	Left Turn	20	20	97.9%	39.7	14.0	D
	Through	430	456	106.1%	21.0	3.5	C
	Right Turn	10	9	92.2%	2.9	1.2	A
	Second Right						
	Subtotal	460	485	105.4%	21.3	3.4	C
EB	U Turn						
	Second Left						
	Left Turn	10	9	92.2%	29.7	7.8	C
	Through	10	10	96.0%	32.5	19.0	C
	Right Turn	180	172	95.8%	2.3	0.2	A
	Second Right						
	Subtotal	200	191	95.6%	5.6	1.5	A
WB	U Turn						
	Second Left						
	Left Turn	150	154	102.9%	26.7	5.7	C
	Through	10	13	130.6%	21.7	12.9	C
	Right Turn	80	88	110.4%	13.5	4.4	B
	Second Right						
	Subtotal	240	256	106.6%	21.7	4.2	C
Total		1,890	1,934	102.3%	19.9	3.3	B

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

Mace Ranch IC  
E+MRIC-Phase1  
PM Peak Hour

Intersection 80

I-80 WB Ramps/CR 32A

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	90	93	102.8%	7.3	1.3	A
	Through						
	Right Turn	70	70	99.3%	5.8	1.1	A
	Second Right						
	Subtotal	160	162	101.3%	6.7	1.1	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
EB	U Turn						
	Second Left						
	Left Turn						
	Through	290	291	100.4%	0.9	0.3	A
	Right Turn						
	Second Right						
	Subtotal	290	291	100.4%	0.9	0.3	A
WB	U Turn						
	Second Left						
	Left Turn	20	18	90.2%	2.6	1.1	A
	Through	10	12	119.0%	0.1	0.1	A
	Right Turn						
	Second Right						
	Subtotal	30	30	99.8%	1.7	0.9	A
Total		480	483	100.6%	2.9	0.5	A



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

Mace Ranch IC  
E+MRIC-Phase1  
PM Peak Hour

Intersection 81

I-80 EB Ramps/CR 32B

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	10	9	88.3%	5.3	1.4	A
	Through						
	Right Turn	20	20	101.8%	2.3	0.4	A
	Second Right						
	Subtotal	30	29	97.3%	3.3	0.8	A
EB	U Turn						
	Second Left						
	Left Turn	190	191	100.6%	4.9	0.6	A
	Through	20	22	111.4%	3.5	1.8	A
	Right Turn						
	Second Right						
	Subtotal	210	214	101.7%	4.7	0.7	A
WB	U Turn						
	Second Left						
	Left Turn						
	Through	50	47	94.5%	2.9	1.1	A
	Right Turn	260	257	99.0%	1.5	0.4	A
	Second Right						
	Subtotal	310	305	98.2%	1.7	0.4	A
Total		550	547	99.5%	3.0	0.4	A

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

Mace Ranch IC  
E+MRIC-Phase1  
PM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	350	348	99.4%	4.9	0.4	A
	Through						
	Right Turn	90	87	96.4%	3.0	0.9	A
	Second Right						
	Subtotal	440	435	98.8%	4.5	0.4	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	440	451	102.5%	11.1	2.9	B
	Right Turn						
	Second Right						
	Subtotal	440	451	102.5%	11.1	2.9	B
WB	U Turn						
	Second Left						
	Left Turn						
	Through	340	323	94.9%	9.2	0.8	A
	Right Turn						
	Second Right						
	Subtotal	340	323	94.9%	9.2	0.8	A
Total		1,220	1,208	99.0%	8.2	1.1	A

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

Mace Ranch IC  
E+MRIC-Phase1  
PM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	790	792	100.3%	2.0	0.1	A
	Right Turn	310	325	104.9%	1.9	0.4	A
	Second Right						
	Subtotal	1,100	1,117	101.6%	2.0	0.1	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	910	910	100.1%	2.0	0.2	A
	Right Turn	570	559	98.2%	4.4	0.3	A
	Second Right						
	Subtotal	1,480	1,470	99.3%	2.9	0.2	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		2,580	2,587	100.3%	2.5	0.2	A

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

Mace Ranch IC  
E+MRIC-Phase1  
PM Peak Hour

Intersection 205

Mace Blvd/Mace Ranch IC Driveway 1

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn	720	727	101.0%	2.3	0.2	A
	Second Left						
	Left Turn						
	Through						
	Right Turn						
Second Right							
	Subtotal	720	727	101.0%	2.3	0.2	A
SB	U Turn	460	476	103.5%	0.5	0.0	A
	Second Left						
	Left Turn						
	Through						
	Right Turn						
Second Right							
	Subtotal	460	476	103.5%	0.5	0.0	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
Second Right							
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
Second Right							
	Subtotal						
Total		1,180	1,203	102.0%	1.6	0.1	A

**J.4.D – EXISTING PLUS MIXED-USE ALTERNATIVE**



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

Mace Ranch IC  
E+MRIC-Mixed-Use  
AM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	380	408	107.4%	58.6	10.2	E
	Through	600	612	102.0%	13.9	2.0	B
	Right Turn						
	Second Right						
	Subtotal	980	1,020	104.1%	31.9	5.7	C
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,020	858	84.1%	80.2	7.0	F
	Right Turn	210	175	83.4%	23.5	4.1	C
	Second Right						
	Subtotal	1,230	1,033	84.0%	70.7	7.1	E
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn	300	270	89.9%	31.1	5.6	C
	Through	10	10	99.8%	30.4	19.3	C
	Right Turn	1,030	937	91.0%	77.6	20.3	E
	Second Right						
	Subtotal	1,340	1,217	90.8%	66.9	16.7	E
Total		3,550	3,271	92.1%	57.2	6.3	E

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

Mace Ranch IC  
E+MRIC-Mixed-Use  
AM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	550	545	99.1%	31.6	2.7	C
	Through	840	769	91.5%	20.6	15.0	C
	Right Turn	240	227	94.4%	19.5	15.1	B
	Second Right						
	Subtotal	1,630	1,541	94.5%	24.3	10.2	C
SB	U Turn Second Left	10	7	65.3%	28.5	23.7	C
	Left Turn	50	41	82.9%	42.7	8.7	D
	Through	930	869	93.5%	42.2	16.0	D
	Right Turn	70	67	96.0%	1.7	0.2	A
	Second Right						
	Subtotal	1,060	985	92.9%	39.4	14.3	D
EB	U Turn Second Left	10	12	119.0%	30.7	16.8	C
	Left Turn	30	24	80.6%	41.6	16.3	D
	Through	20	21	103.7%	38.4	19.0	D
	Right Turn	260	252	96.7%	6.8	5.3	A
	Second Right						
	Subtotal	320	308	96.4%	12.5	4.5	B
WB	U Turn Second Left						
	Left Turn	40	36	91.2%	41.6	10.8	D
	Through	70	67	96.0%	39.1	6.3	D
	Right Turn	20	22	109.4%	17.4	11.9	B
	Second Right						
	Subtotal	130	126	96.6%	36.6	3.6	D
Total		3,140	2,959	94.2%	28.6	5.7	C

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

Mace Ranch IC  
E+MRIC-Mixed-Use  
AM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	110	96	87.3%	48.8	8.4	D
	Through	490	416	84.9%	57.0	5.4	E
	Right Turn	300	266	88.7%	50.8	5.5	D
	Second Right						
	Subtotal	900	778	86.4%	53.9	5.2	D
SB	U Turn						
	Second Left						
	Left Turn	170	185	108.9%	44.3	6.0	D
	Through	520	510	98.0%	16.6	2.1	B
	Right Turn	10	11	107.5%	3.3	0.7	A
	Second Right						
	Subtotal	700	705	100.8%	23.8	2.8	C
EB	U Turn						
	Second Left						
	Left Turn	20	17	86.4%	35.2	17.7	D
	Through	70	68	97.6%	39.4	5.7	D
	Right Turn	390	397	101.7%	4.0	2.3	A
	Second Right						
	Subtotal	480	482	100.5%	10.3	2.2	B
WB	U Turn						
	Second Left						
	Left Turn	150	159	106.0%	37.7	2.5	D
	Through	40	31	77.8%	32.6	13.2	C
	Right Turn	50	51	102.1%	17.3	7.2	B
	Second Right						
	Subtotal	240	241	100.5%	32.8	3.1	C
Total		2,320	2,207	95.1%	32.5	2.5	C



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

Mace Ranch IC  
E+MRIC-Mixed-Use  
AM Peak Hour

Intersection 80

I-80 WB Ramps/CR 32A

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left	150	154	102.9%	6.4	0.5	A
	Left Turn						
	Through	60	60	99.8%	4.3	0.8	A
	Right Turn						
	Second Right						
Subtotal	210	214	102.0%	5.8	0.5	A	
SB	U Turn Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
Subtotal							
EB	U Turn Second Left	120	125	104.0%	0.4	0.3	A
	Left Turn						
	Through	120	125	104.0%	0.4	0.3	A
	Right Turn						
	Second Right						
Subtotal	120	125	104.0%	0.4	0.3	A	
WB	U Turn Second Left	10	9	92.2%	1.6	0.6	A
	Left Turn						
	Through	10	8	80.6%	0.2	0.2	A
	Right Turn						
	Second Right						
Subtotal	20	17	86.4%	1.1	0.6	A	
Total		350	356	101.8%	3.7	0.3	A

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

Mace Ranch IC  
E+MRIC-Mixed-Use  
AM Peak Hour

Intersection 81

I-80 EB Ramps/CR 32B

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn	10	12	119.0%	1.9	0.7	A
	Second Right						
	Subtotal	10	12	119.0%	1.9	0.7	A
EB	U Turn						
	Second Left						
	Left Turn	160	154	96.5%	3.5	0.9	A
	Through	10	10	99.8%	1.5	1.5	A
	Right Turn						
	Second Right						
	Subtotal	170	164	96.7%	3.5	0.9	A
WB	U Turn						
	Second Left						
	Left Turn						
	Through	50	52	103.7%	1.4	0.7	A
	Right Turn	140	142	101.2%	0.9	0.3	A
	Second Right						
	Subtotal	190	194	101.9%	1.0	0.4	A
Total		370	370	99.9%	2.1	0.4	A

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

Mace Ranch IC  
E+MRIC-Mixed-Use  
AM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	430	442	102.9%	4.4	0.5	A
	Through						
	Right Turn	90	101	111.8%	2.8	0.7	A
	Second Right						
	Subtotal	520	543	104.4%	4.1	0.3	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	370	353	95.5%	10.0	2.2	B
	Right Turn						
	Second Right						
	Subtotal	370	353	95.5%	10.0	2.2	B
WB	U Turn						
	Second Left						
	Left Turn						
	Through	340	296	87.1%	9.9	1.5	A
	Right Turn						
	Second Right						
	Subtotal	340	296	87.1%	9.9	1.5	A
Total		1,230	1,192	96.9%	7.3	0.9	A

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

Mace Ranch IC  
E+MRIC-Mixed-Use  
AM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	980	1,019	104.0%	2.2	0.1	A
	Right Turn	420	404	96.3%	1.8	0.3	A
	Second Right						
	Subtotal	1,400	1,423	101.7%	2.1	0.1	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	610	538	88.1%	1.7	0.2	A
	Right Turn	710	592	83.4%	4.4	0.1	A
	Second Right						
	Subtotal	1,320	1,130	85.6%	3.1	0.1	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		2,720	2,553	93.9%	2.6	0.1	A

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

Mace Ranch IC  
E+MRIC-Mixed-Use  
AM Peak Hour

Intersection 205

Mace Blvd/Mace Ranch IC Driveway 1

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	480	413	86.1%	3.9	0.4	A
	Right Turn	80	75	93.6%	2.9	0.5	A
	Second Right						
	Subtotal	560	488	87.2%	3.7	0.4	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	700	710	101.4%	0.7	0.1	A
	Right Turn						
	Second Right						
	Subtotal	700	710	101.4%	0.7	0.1	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn	20	22	109.4%	3.5	1.0	A
	Second Right						
	Subtotal	20	22	109.4%	3.5	1.0	A
Total		1,280	1,220	95.3%	2.0	0.2	A

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

Mace Ranch IC  
E+MRIC-Mixed-Use  
PM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	250	247	98.6%	43.4	3.6	D
	Through	580	592	102.1%	12.0	1.7	B
	Right Turn						
	Second Right						
	Subtotal	830	839	101.0%	21.2	1.3	C
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,240	1,057	85.3%	65.8	5.4	E
	Right Turn	360	282	78.3%	20.6	2.6	C
	Second Right						
	Subtotal	1,600	1,339	83.7%	56.4	5.2	E
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn	420	430	102.3%	29.7	2.9	C
	Through	10	11	111.4%	34.8	16.4	C
	Right Turn	870	830	95.4%	24.9	7.5	C
	Second Right						
	Subtotal	1,300	1,271	97.7%	26.6	5.6	C
Total		3,730	3,448	92.4%	36.8	2.9	D

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

Mace Ranch IC  
E+MRIC-Mixed-Use  
PM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	460	457	99.3%	41.1	4.3	D
	Through	870	860	98.8%	23.6	4.6	C
	Right Turn	120	110	91.5%	19.1	5.5	B
	Second Right						
	Subtotal	1,450	1,426	98.4%	28.9	3.9	C
SB	U Turn	10	10	99.8%	56.1	23.0	E
	Second Left						
	Left Turn	70	52	74.1%	49.5	6.0	D
	Through	800	699	87.4%	70.8	22.4	E
	Right Turn	80	80	99.8%	1.9	0.2	A
	Second Right						
	Subtotal	960	841	87.6%	62.6	17.8	E
EB	U Turn	40	45	111.4%	42.8	8.5	D
	Second Left						
	Left Turn	110	108	98.1%	39.5	7.4	D
	Through	150	141	94.2%	37.0	4.8	D
	Right Turn	590	572	97.0%	35.4	21.8	D
	Second Right						
	Subtotal	890	866	97.3%	36.7	14.3	D
WB	U Turn						
	Second Left						
	Left Turn	210	156	74.4%	140.1	57.0	F
	Through	30	31	103.7%	71.6	37.9	E
	Right Turn	60	51	84.5%	59.9	48.5	E
	Second Right						
	Subtotal	300	238	79.4%	114.7	54.9	F
Total		3,600	3,371	93.6%	44.9	8.3	D

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

Mace Ranch IC  
E+MRIC-Mixed-Use  
PM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	360	352	97.8%	48.5	7.9	D
	Through	580	551	94.9%	38.0	5.4	D
	Right Turn	110	101	91.5%	31.2	6.9	C
	Second Right						
	Subtotal	1,050	1,003	95.6%	41.1	5.6	D
SB	U Turn						
	Second Left						
	Left Turn	70	72	103.1%	43.6	5.0	D
	Through	480	480	100.0%	31.4	4.9	C
	Right Turn	10	12	119.0%	4.5	2.1	A
	Second Right						
	Subtotal	560	564	100.7%	32.3	4.5	C
EB	U Turn						
	Second Left						
	Left Turn	10	11	111.4%	45.7	17.2	D
	Through	30	34	112.6%	42.2	9.0	D
	Right Turn	130	122	94.2%	2.1	0.1	A
	Second Right						
	Subtotal	170	167	98.5%	13.3	3.2	B
WB	U Turn						
	Second Left						
	Left Turn	350	343	97.9%	47.6	9.6	D
	Through	10	11	111.4%	20.0	14.6	B
	Right Turn	160	161	100.6%	15.5	3.8	B
	Second Right						
	Subtotal	520	515	99.0%	37.1	6.4	D
Total		2,300	2,249	97.8%	36.0	4.0	D



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

Mace Ranch IC  
E+MRIC-Mixed-Use  
PM Peak Hour

Intersection 80

I-80 WB Ramps/CR 32A

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	120	120	100.2%	8.3	1.7	A
	Through						
	Right Turn	70	69	98.7%	5.5	1.1	A
	Second Right						
	Subtotal	190	189	99.6%	7.2	1.1	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
EB	U Turn						
	Second Left						
	Left Turn						
	Through	330	340	103.1%	1.2	0.1	A
	Right Turn						
	Second Right						
	Subtotal	330	340	103.1%	1.2	0.1	A
WB	U Turn						
	Second Left						
	Left Turn	20	15	73.0%	2.7	1.7	A
	Through	10	12	115.2%	0.4	0.5	A
	Right Turn						
	Second Right						
	Subtotal	30	26	87.0%	1.6	0.9	A
Total		550	556	101.0%	3.2	0.4	A

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

Mace Ranch IC  
E+MRIC-Mixed-Use  
PM Peak Hour

Intersection 81

I-80 EB Ramps/CR 32B

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	10	9	92.2%	8.0	5.3	A
	Through						
	Right Turn	20	25	124.8%	3.3	1.4	A
	Second Right						
	Subtotal	30	34	113.9%	4.6	2.3	A
EB	U Turn						
	Second Left						
	Left Turn	190	187	98.4%	5.9	1.8	A
	Through	20	17	84.5%	5.0	6.2	A
	Right Turn						
	Second Right						
	Subtotal	210	204	97.1%	5.7	2.0	A
WB	U Turn						
	Second Left						
	Left Turn						
	Through	50	55	110.6%	2.5	1.0	A
	Right Turn	300	314	104.8%	1.8	0.4	A
	Second Right						
	Subtotal	350	370	105.7%	1.9	0.4	A
Total		590	608	103.0%	3.4	0.9	A

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

Mace Ranch IC  
E+MRIC-Mixed-Use  
PM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	400	387	96.7%	5.0	0.4	A
	Through						
	Right Turn	110	108	97.7%	3.0	0.7	A
	Second Right						
	Subtotal	510	494	96.9%	4.5	0.4	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	440	461	104.7%	12.1	2.8	B
	Right Turn						
	Second Right						
	Subtotal	440	461	104.7%	12.1	2.8	B
WB	U Turn						
	Second Left						
	Left Turn						
	Through	320	297	92.9%	9.4	0.8	A
	Right Turn						
	Second Right						
	Subtotal	320	297	92.9%	9.4	0.8	A
Total		1,270	1,252	98.6%	8.5	1.0	A

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

Mace Ranch IC  
E+MRIC-Mixed-Use  
PM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	830	835	100.6%	2.0	0.2	A
	Right Turn	330	326	98.9%	1.7	0.2	A
	Second Right						
	Subtotal	1,160	1,162	100.1%	1.9	0.1	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	870	826	95.0%	1.8	0.1	A
	Right Turn	790	657	83.2%	4.7	0.2	A
	Second Right						
	Subtotal	1,660	1,484	89.4%	3.1	0.1	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		2,820	2,645	93.8%	2.6	0.1	A

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

Mace Ranch IC  
E+MRIC-Mixed-Use  
PM Peak Hour

Intersection 205

Mace Blvd/Mace Ranch IC Driveway 1

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	710	688	96.9%	3.6	0.4	A
	Right Turn	40	38	95.0%	2.8	0.6	A
	Second Right						
	Subtotal	750	726	96.8%	3.5	0.4	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	560	571	102.0%	0.6	0.1	A
	Right Turn						
	Second Right						
	Subtotal	560	571	102.0%	0.6	0.1	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn	50	43	86.8%	8.7	1.9	A
	Second Right						
	Subtotal	50	43	86.8%	8.7	1.9	A
Total		1,360	1,341	98.6%	2.5	0.2	A

**J.4.E – CEQA CUMULATIVE NO PROJECT**



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

**Mace Ranch IC**  
**Cumulative no Project**  
**AM Peak Hour**

**Intersection 3**                      **Mace Blvd/Chiles Rd**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	10	10	103.0%	40.3	7.2	D
	Through	722	738	102.2%	35.3	3.7	D
	Right Turn	59	64	108.3%	12.8	3.4	B
	Subtotal	791	812	102.7%	33.6	3.4	C
SB	Left Turn	158	143	90.6%	36.3	5.6	D
	Through	524	476	90.8%	14.8	0.9	B
	Right Turn	260	245	94.1%	3.6	0.1	A
	Subtotal	942	864	91.7%	15.2	1.2	B
EB	Left Turn	570	532	93.4%	115.4	25.0	F
	Through	210	211	100.4%	18.1	1.6	B
	Right Turn	222	222	100.2%	3.2	0.2	A
	Subtotal	1,002	966	96.4%	68.7	15.4	E
WB	Left Turn	16	14	88.8%	38.4	6.1	D
	Through	40	42	106.0%	27.9	3.6	C
	Right Turn	374	376	100.5%	22.2	3.6	C
	Subtotal	430	433	100.6%	23.3	3.5	C
<b>Total</b>		<b>3,165</b>	<b>3,074</b>	<b>97.1%</b>	<b>38.0</b>	<b>4.9</b>	<b>D</b>

**Intersection 104**                      **Mace Blvd/I-80 EB Ramps**                      **Uncontrolled**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1,039	1,036	99.7%	2.4	0.1	A
	Right Turn	630	615	97.6%	2.2	0.1	A
	Subtotal	1,669	1,651	98.9%	2.3	0.1	A
SB	Left Turn						
	Through	942	863	91.6%	2.0	0.1	A
	Right Turn	713	653	91.6%	4.4	0.2	A
	Subtotal	1,655	1,516	91.6%	3.0	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
<b>Total</b>		<b>3,324</b>	<b>3,167</b>	<b>95.3%</b>	<b>2.7</b>	<b>0.0</b>	<b>A</b>

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

**Mace Ranch IC**  
**Cumulative no Project**  
**AM Peak Hour**

**Intersection 4**

**Mace Blvd/I-80 WB Ramps**

**Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	425	430	101.2%	35.0	1.7	D
	Through	614	604	98.4%	10.6	1.2	B
	Right Turn						
	Subtotal	1,039	1,034	99.5%	20.8	1.1	C
SB	Left Turn						
	Through	1,205	1,094	90.8%	51.6	14.0	D
	Right Turn	166	151	90.7%	21.2	8.4	C
	Subtotal	1,371	1,245	90.8%	47.9	13.2	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	450	423	93.9%	43.5	8.0	D
	Through	1	0	30.0%	7.1	15.7	A
	Right Turn	1,190	1,108	93.1%	76.0	24.1	E
	Subtotal	1,641	1,531	93.3%	67.0	19.5	E
Total		4,051	3,810	94.1%	48.2	6.3	D

**Intersection 5**

**Mace Blvd/2nd St-Co Rd 32A**

**Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	746	688	92.2%	92.8	6.2	F
	Through	1,038	987	95.0%	18.9	2.4	B
	Right Turn	20	17	87.0%	13.3	4.9	B
	Subtotal	1,804	1,692	93.8%	48.9	3.9	D
SB	Left Turn	44	38	87.3%	63.0	10.2	E
	Through	1,068	950	89.0%	99.0	2.3	F
	Right Turn	315	269	85.5%	12.4	1.7	B
	Subtotal	1,427	1,258	88.2%	79.4	1.7	E
EB	Left Turn	107	105	97.7%	109.3	29.1	F
	Through	21	21	98.1%	47.8	11.8	D
	Right Turn	294	298	101.3%	5.1	0.8	A
	Subtotal	422	423	100.2%	33.4	8.6	C
WB	Left Turn	9	8	90.0%	71.9	14.3	E
	Through	57	59	103.2%	61.9	6.3	E
	Right Turn	24	26	110.0%	33.0	7.9	C
	Subtotal	90	93	103.7%	54.7	4.5	D
Total		3,743	3,466	92.6%	58.2	2.8	E



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

**Mace Ranch IC**  
**Cumulative no Project**  
**AM Peak Hour**

**Intersection 6**                      **Mace Blvd/Alhambra Dr**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	449	430	95.8%	17.8	1.4	B
	Through	717	687	95.8%	4.3	0.3	A
	Right Turn						
	Subtotal	1,166	1,117	95.8%	9.4	0.6	A
SB	Left Turn						
	Through	720	727	100.9%	37.5	9.3	D
	Right Turn	11	10	88.2%	6.6	4.8	A
	Subtotal	731	736	100.7%	37.1	9.2	D
EB	Left Turn	12	9	71.7%	31.8	4.7	C
	Through						
	Right Turn	706	547	77.5%	78.5	9.8	E
	Subtotal	718	556	77.4%	77.8	9.7	E
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
<b>Total</b>		<b>2,615</b>	<b>2,409</b>	<b>92.1%</b>	<b>33.7</b>	<b>3.9</b>	<b>C</b>

**Intersection 103**                      **I-80 EB On-ramp/Chiles Rd**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	481	472	98.1%	14.6	9.3	B
	Through						
	Right Turn	143	141	98.6%	3.4	0.6	A
	Subtotal	624	613	98.2%	12.0	7.2	B
EB	Left Turn						
	Through	521	497	95.4%	57.6	49.2	E
	Right Turn						
	Subtotal	521	497	95.4%	57.6	49.2	E
WB	Left Turn						
	Through	310	297	95.8%	12.7	0.8	B
	Right Turn						
	Subtotal	310	297	95.8%	12.7	0.8	B
<b>Total</b>		<b>1,455</b>	<b>1,407</b>	<b>96.7%</b>	<b>27.9</b>	<b>19.9</b>	<b>C</b>

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

**Mace Ranch IC**  
**Cumulative no Project**  
**PM Peak Hour**

**Intersection 3**                      **Mace Blvd/Chiles Rd**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	20	20	98.0%	140.9	18.0	F
	Through	874	745	85.2%	135.8	16.0	F
	Right Turn	86	70	81.4%	97.2	23.7	F
	Subtotal	980	834	85.1%	132.6	16.4	F
SB	Left Turn	236	192	81.2%	61.0	10.3	E
	Through	651	547	83.9%	18.9	2.3	B
	Right Turn	316	268	84.7%	4.1	0.2	A
	Subtotal	1,203	1,006	83.6%	23.0	3.1	C
EB	Left Turn	652	553	84.8%	122.2	17.8	F
	Through	247	223	90.3%	24.6	1.7	C
	Right Turn	191	173	90.4%	3.2	0.1	A
	Subtotal	1,090	948	87.0%	77.6	10.1	E
WB	Left Turn	41	41	100.5%	49.8	7.4	D
	Through	51	51	99.0%	39.5	7.8	D
	Right Turn	346	336	97.2%	28.5	6.7	C
	Subtotal	438	428	97.7%	31.8	6.5	C
<b>Total</b>		<b>3,711</b>	<b>3,216</b>	<b>86.7%</b>	<b>68.7</b>	<b>3.5</b>	<b>E</b>

**Intersection 104**                      **Mace Blvd/I-80 EB Ramps**                      **Uncontrolled**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1,267	1,093	86.3%	22.1	5.1	C
	Right Turn	608	532	87.5%	2.9	0.4	A
	Subtotal	1,875	1,625	86.7%	15.8	3.6	C
SB	Left Turn						
	Through	1,203	1,004	83.4%	2.4	0.2	A
	Right Turn	960	784	81.7%	4.9	0.2	A
	Subtotal	2,163	1,788	82.7%	3.5	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
<b>Total</b>		<b>4,038</b>	<b>3,413</b>	<b>84.5%</b>	<b>9.3</b>	<b>1.6</b>	<b>A</b>

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

**Mace Ranch IC**  
**Cumulative no Project**  
**PM Peak Hour**

**Intersection 4**

**Mace Blvd/I-80 WB Ramps**

**Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	496	424	85.5%	86.8	8.1	F
	Through	771	635	82.4%	144.5	20.8	F
	Right Turn						
	Subtotal	1,267	1,059	83.6%	121.5	15.7	F
SB	Left Turn						
	Through	1,643	1,345	81.9%	65.2	4.0	E
	Right Turn	237	188	79.2%	35.9	2.9	D
	Subtotal	1,880	1,533	81.5%	61.6	3.8	E
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	520	442	85.0%	79.7	7.7	E
	Through	1	1	90.0%	37.3	40.2	D
	Right Turn	853	654	76.7%	163.2	30.1	F
	Subtotal	1,374	1,097	79.9%	129.5	20.4	F
<b>Total</b>		<b>4,521</b>	<b>3,689</b>	<b>81.6%</b>	<b>98.8</b>	<b>8.2</b>	<b>F</b>

**Intersection 5**

**Mace Blvd/2nd St-Co Rd 32A**

**Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	542	408	75.2%	195.4	6.6	F
	Through	1,032	814	78.9%	28.2	1.5	C
	Right Turn	50	42	83.2%	22.6	2.6	C
	Subtotal	1,624	1,263	77.8%	82.0	2.1	F
SB	Left Turn	83	69	82.8%	62.4	5.9	E
	Through	1,130	896	79.3%	105.6	3.8	F
	Right Turn	140	110	78.9%	2.7	0.2	A
	Subtotal	1,353	1,075	79.5%	92.2	3.7	F
EB	Left Turn	407	330	81.1%	177.0	12.5	F
	Through	143	116	81.2%	114.3	8.2	F
	Right Turn	710	595	83.8%	106.9	13.9	F
	Subtotal	1,260	1,041	82.6%	130.0	9.5	F
WB	Left Turn	40	42	104.5%	58.1	13.2	E
	Through	31	35	111.6%	42.2	2.8	D
	Right Turn	46	47	102.0%	16.1	3.2	B
	Subtotal	117	123	105.4%	37.7	4.7	D
<b>Total</b>		<b>4,354</b>	<b>3,503</b>	<b>80.4%</b>	<b>97.8</b>	<b>2.8</b>	<b>F</b>

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

**Mace Ranch IC**  
**Cumulative no Project**  
**PM Peak Hour**

**Intersection 6**                      **Mace Blvd/Alhambra Dr**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	546	440	80.5%	16.5	1.0	B
	Through	913	732	80.1%	4.0	0.3	A
	Right Turn						
	Subtotal	1,459	1,171	80.3%	8.7	0.5	A
SB	Left Turn						
	Through	890	722	81.2%	243.1	31.3	F
	Right Turn	21	17	80.0%	183.7	36.7	F
	Subtotal	911	739	81.1%	241.9	30.9	F
EB	Left Turn	7	6	82.9%	34.5	6.8	C
	Through						
	Right Turn	463	383	82.6%	110.4	13.3	F
	Subtotal	470	388	82.6%	109.3	13.3	F
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
<b>Total</b>		<b>2,840</b>	<b>2,299</b>	<b>80.9%</b>	<b>100.5</b>	<b>10.1</b>	<b>F</b>

**Intersection 103**                      **I-80 EB On-ramp/Chiles Rd**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	435	429	98.7%	29.9	13.8	C
	Through						
	Right Turn	170	163	96.0%	4.0	0.6	A
	Subtotal	605	593	97.9%	22.7	9.7	C
EB	Left Turn						
	Through	655	525	80.2%	174.9	53.3	F
	Right Turn						
	Subtotal	655	525	80.2%	174.9	53.3	F
WB	Left Turn						
	Through	387	339	87.5%	12.9	0.7	B
	Right Turn						
	Subtotal	387	339	87.5%	12.9	0.7	B
<b>Total</b>		<b>1,647</b>	<b>1,456</b>	<b>88.4%</b>	<b>74.8</b>	<b>20.0</b>	<b>E</b>

**J.4.F – CEQA CUMULATIVE PLUS PROJECT**



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

Mace Ranch IC  
Cumulative with Project  
AM Peak Hour

Intersection 3 Mace Blvd/Chiles Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	37	35	95.4%	35.7	4.1	D
	Through	619	619	100.1%	24.4	1.6	C
	Right Turn	37	42	112.2%	6.3	1.1	A
	Subtotal	693	696	100.5%	23.9	1.4	C
SB	Left Turn	158	109	68.7%	30.8	2.5	C
	Through	399	282	70.6%	16.4	1.6	B
	Right Turn	223	163	73.2%	3.2	0.1	A
	Subtotal	780	553	70.9%	15.4	0.7	B
EB	Left Turn	620	558	90.0%	138.9	14.0	F
	Through	225	206	91.4%	19.7	2.5	B
	Right Turn	210	194	92.2%	3.3	0.2	A
	Subtotal	1,055	958	90.8%	85.9	8.7	F
WB	Left Turn	15	14	94.7%	35.9	5.7	D
	Through	90	87	96.2%	29.1	3.9	C
	Right Turn	383	376	98.3%	21.9	6.0	C
	Subtotal	488	477	97.8%	23.6	5.4	C
Total		3,016	2,684	89.0%	44.2	2.1	D

Intersection 104 Mace Blvd/I-80 EB Ramps Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through	997	959	96.2%	2.1	0.1	A
	Right Turn	628	597	95.1%	1.9	0.2	A
	Subtotal	1,625	1,556	95.8%	2.0	0.1	A
SB	Left Turn						
	Through	780	551	70.6%	2.0	0.1	A
	Right Turn	893	822	92.0%	4.3	0.1	A
	Subtotal	1,673	1,373	82.1%	3.4	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		3,298	2,929	88.8%	2.7	0.1	A

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

Mace Ranch IC  
Cumulative with Project  
AM Peak Hour

Intersection 4 Mace Blvd/I-80 WB Ramps Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	376	364	96.7%	26.5	2.2	C
	Through	621	594	95.6%	6.1	0.9	A
	Right Turn						
	Subtotal	997	957	96.0%	13.9	1.2	B
SB	Left Turn						
	Through	1,295	1,209	93.3%	55.4	12.5	E
	Right Turn	125	117	93.7%	29.0	9.4	C
	Subtotal	1,420	1,326	93.4%	53.1	12.3	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	378	166	43.9%	81.6	6.5	F
	Through	1	0	30.0%	13.9	22.8	B
	Right Turn	1,846	803	43.5%	187.4	16.5	F
	Subtotal	2,225	970	43.6%	169.2	15.0	F
Total		4,642	3,253	70.1%	75.9	5.5	E

Intersection 5 Mace Blvd/2nd St-Co Rd 32A Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	562	308	54.8%	80.1	4.0	F
	Through	1,355	729	53.8%	137.8	9.8	F
	Right Turn	550	301	54.7%	133.0	6.4	F
	Subtotal	2,467	1,338	54.2%	123.4	6.9	F
SB	Left Turn	50	50	99.4%	49.2	5.7	D
	Through	1,049	1,052	100.2%	38.7	12.6	D
	Right Turn	471	471	99.9%	6.5	0.9	A
	Subtotal	1,570	1,572	100.1%	29.4	8.6	C
EB	Left Turn	117	69	59.3%	765.8	184.4	F
	Through	26	19	73.8%	298.5	139.1	F
	Right Turn	281	193	68.8%	268.7	116.8	F
	Subtotal	424	282	66.5%	395.3	141.6	F
WB	Left Turn	90	93	103.1%	65.0	21.9	E
	Through	63	65	102.5%	47.0	4.3	D
	Right Turn	20	21	103.0%	27.1	7.1	C
	Subtotal	173	178	102.9%	54.1	12.5	D
Total		4,634	3,370	72.7%	96.9	7.4	F

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

Mace Ranch IC  
Cumulative with Project  
AM Peak Hour

Intersection 6 Mace Blvd/Alhambra Dr Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	36	20	55.0%	51.8	7.6	D
	Through	403	218	54.0%	59.8	2.2	E
	Right Turn	1,050	581	55.3%	51.9	1.9	D
	Subtotal	1,489	818	54.9%	54.0	2.0	D
SB	Left Turn	150	147	98.1%	82.6	22.3	F
	Through	670	665	99.3%	12.5	2.5	B
	Right Turn	13	13	99.2%	2.9	0.3	A
	Subtotal	833	825	99.1%	25.0	4.8	C
EB	Left Turn	15	15	97.3%	39.7	3.6	D
	Through	91	90	98.7%	39.1	3.4	D
	Right Turn	695	700	100.7%	8.0	8.1	A
	Subtotal	801	804	100.4%	12.0	7.3	B
WB	Left Turn	204	205	100.4%	39.9	2.8	D
	Through	35	36	101.4%	37.7	4.1	D
	Right Turn	15	16	104.0%	10.9	5.3	B
	Subtotal	254	256	100.8%	37.8	2.1	D
Total		3,377	2,703	80.1%	31.2	3.5	C

Intersection 103 I-80 EB On-ramp/Chiles 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	591	565	95.5%	95.8	43.7	F
	Through						
	Right Turn	111	113	101.4%	14.0	12.2	B
	Subtotal	702	677	96.4%	82.3	38.3	F
EB	Left Turn						
	Through	464	400	86.1%	227.2	113.3	F
	Right Turn						
	Subtotal	464	400	86.1%	227.2	113.3	F
WB	Left Turn						
	Through	350	285	81.4%	13.4	1.1	B
	Right Turn						
	Subtotal	350	285	81.4%	13.4	1.1	B
Total		1,516	1,361	89.8%	108.8	43.7	F



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

Mace Ranch IC  
Cumulative with Project  
PM Peak Hour

Intersection 3 Mace Blvd/Chiles Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	33	17	51.8%	186.6	51.8	F
	Through	930	492	52.9%	231.5	21.4	F
	Right Turn	108	54	49.9%	176.2	25.1	F
	Subtotal	1,071	563	52.5%	224.9	21.0	F
SB	Left Turn	197	110	55.8%	43.4	10.9	D
	Through	627	330	52.6%	16.8	1.4	B
	Right Turn	202	104	51.3%	2.8	0.1	A
	Subtotal	1,026	543	53.0%	19.5	2.9	B
EB	Left Turn	721	359	49.8%	232.4	22.0	F
	Through	246	124	50.4%	24.3	4.3	C
	Right Turn	154	81	52.7%	3.0	0.2	A
	Subtotal	1,121	564	50.3%	154.0	15.8	F
WB	Left Turn	41	29	70.0%	230.8	31.3	F
	Through	65	51	78.0%	241.6	18.1	F
	Right Turn	447	345	77.1%	258.8	27.3	F
	Subtotal	553	424	76.7%	255.1	25.7	F
Total		3,771	2,094	55.5%	158.1	9.4	F

Intersection 104 Mace Blvd/I-80 EB Ramps Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through	1,218	661	54.3%	73.0	9.4	F
	Right Turn	883	526	59.6%	4.6	0.5	A
	Subtotal	2,101	1,188	56.5%	42.5	4.4	E
SB	Left Turn						
	Through	1,026	545	53.1%	1.7	0.1	A
	Right Turn	1,475	997	67.6%	4.5	0.3	A
	Subtotal	2,501	1,542	61.7%	3.5	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		4,602	2,730	59.3%	20.4	1.7	C

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

Mace Ranch IC  
Cumulative with Project  
PM Peak Hour

Intersection 4 Mace Blvd/I-80 WB Ramps Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	515	278	54.0%	151.1	14.4	F
	Through	703	349	49.6%	373.2	37.8	F
	Right Turn						
	Subtotal	1,218	627	51.5%	274.6	26.6	F
SB	Left Turn						
	Through	2,058	1,398	67.9%	34.8	9.4	C
	Right Turn	225	156	69.5%	17.0	6.2	B
	Subtotal	2,283	1,554	68.1%	33.0	9.2	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	443	141	31.8%	139.6	15.8	F
	Through	1	1	70.0%	126.1	158.8	F
	Right Turn	1,079	288	26.7%	520.8	32.1	F
	Subtotal	1,523	430	28.2%	395.4	25.9	F
Total		5,024	2,611	52.0%	150.1	5.8	F

Intersection 5 Mace Blvd/2nd St-Co Rd 32A Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	548	200	36.5%	153.5	10.2	F
	Through	1,092	359	32.9%	375.3	31.6	F
	Right Turn	142	47	33.1%	341.7	25.0	F
	Subtotal	1,782	606	34.0%	299.6	22.2	F
SB	Left Turn	111	91	82.3%	60.8	4.9	E
	Through	1,224	1,027	83.9%	77.5	6.4	E
	Right Turn	198	155	78.3%	2.5	0.1	A
	Subtotal	1,533	1,273	83.0%	67.2	5.7	E
EB	Left Turn	463	65	14.1%	1090.4	205.2	F
	Through	186	31	16.4%	647.6	128.4	F
	Right Turn	637	95	14.9%	608.2	132.8	F
	Subtotal	1,286	191	14.8%	784.6	164.1	F
WB	Left Turn	422	419	99.3%	266.2	83.7	F
	Through	36	39	108.1%	251.6	84.0	F
	Right Turn	56	58	103.8%	254.0	88.3	F
	Subtotal	514	516	100.4%	263.8	83.6	F
Total		5,115	2,585	50.5%	210.3	17.9	F

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

Mace Ranch IC  
Cumulative with Project  
PM Peak Hour

Intersection 6 Mace Blvd/Alhambra Dr Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	484	156	32.2%	302.2	10.7	F
	Through	901	271	30.1%	34.1	1.5	C
	Right Turn	200	58	28.9%	30.9	3.3	C
	Subtotal	1,585	485	30.6%	119.9	5.6	F
SB	Left Turn	40	38	93.8%	38.0	2.6	D
	Through	404	408	101.1%	14.5	1.4	B
	Right Turn	14	14	102.1%	2.9	0.3	A
	Subtotal	458	460	100.5%	16.1	1.3	B
EB	Left Turn	10	10	98.0%	30.4	11.3	C
	Through	31	31	99.4%	36.1	4.3	D
	Right Turn	99	99	100.1%	2.4	0.1	A
	Subtotal	140	140	99.8%	11.8	1.5	B
WB	Left Turn	1,030	767	74.5%	148.7	7.5	F
	Through	155	123	79.1%	48.9	3.3	D
	Right Turn	70	51	73.4%	33.4	4.0	C
	Subtotal	1,255	941	75.0%	129.4	6.4	F
Total		3,438	2,026	58.9%	93.1	2.0	F

Intersection 103 I-80 EB On-ramp/Chiles 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	425	314	73.8%	347.6	79.6	F
	Through						
	Right Turn	209	177	84.5%	43.6	19.3	D
	Subtotal	634	490	77.4%	236.5	49.4	F
EB	Left Turn						
	Through	696	253	36.4%	549.0	133.5	F
	Right Turn						
	Subtotal	696	253	36.4%	549.0	133.5	F
WB	Left Turn						
	Through	300	171	57.1%	12.4	0.9	B
	Right Turn						
	Subtotal	300	171	57.1%	12.4	0.9	B
Total		1,630	915	56.1%	276.1	38.1	F

**J.4.G – CEQA CUMULATIVE PLUS MIXED-USE ALTERNATIVE**



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

Mace Ranch IC  
CEQA C+P Mixed-Use  
AM Peak Hour

Intersection 3

Mace Blvd/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	30	31	105.0%	49.8	8.3	D
	Through	710	701	98.8%	29.7	5.2	C
	Right Turn	60	63	104.3%	18.7	8.4	B
	Second Right						
	Subtotal	800	795	99.4%	29.6	5.2	C
SB	U Turn						
	Second Left						
	Left Turn	150	98	65.0%	38.7	5.4	D
	Through	450	330	73.4%	19.2	3.8	B
	Right Turn	300	200	66.6%	2.6	0.3	A
	Second Right						
	Subtotal	900	627	69.7%	16.8	2.2	B
EB	U Turn						
	Second Left						
	Left Turn	540	533	98.6%	39.0	8.2	D
	Through	220	223	101.2%	19.4	3.7	B
	Right Turn	210	220	104.8%	2.9	0.2	A
	Second Right						
	Subtotal	970	975	100.6%	26.5	5.5	C
WB	U Turn						
	Second Left						
	Left Turn	20	25	122.9%	41.5	9.0	D
	Through	80	74	93.1%	35.2	6.6	D
	Right Turn	320	311	97.3%	24.6	6.9	C
	Second Right						
	Subtotal	420	410	97.7%	27.8	5.3	C
Total		3,090	2,809	90.9%	25.6	2.9	C

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

Mace Ranch IC  
CEQA C+P Mixed-Use  
AM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	340	340	100.0%	55.5	8.4	E
	Through	580	570	98.3%	11.1	1.0	B
	Right Turn Second Right						
	Subtotal	920	910	98.9%	27.7	4.2	C
SB	U Turn Second Left						
	Left Turn						
	Through	1,250	1,047	83.8%	70.7	4.7	E
	Right Turn	190	149	78.6%	22.4	3.2	C
	Second Right Subtotal	1,440	1,197	83.1%	64.8	4.3	E
EB	U Turn Second Left						
	Left Turn						
	Through						
	Right Turn Second Right						
	Subtotal						
WB	U Turn Second Left						
	Left Turn	450	247	54.9%	55.8	4.9	E
	Through	10	7	69.1%	55.2	33.3	E
	Right Turn	1,610	897	55.7%	125.3	1.7	F
	Second Right Subtotal	2,070	1,151	55.6%	110.1	1.5	F
Total		4,430	3,258	73.5%	70.5	2.1	E

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

Mace Ranch IC  
CEQA C+P Mixed-Use  
AM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	750	499	66.6%	36.3	5.1	D
	Through	1,260	839	66.6%	26.9	21.5	C
	Right Turn	180	118	65.3%	23.4	19.8	C
	Second Right						
	Subtotal	2,190	1,456	66.5%	29.8	15.5	C
SB	U Turn	10	5	53.8%	40.4	32.1	D
	Second Left						
	Left Turn	50	46	92.2%	52.4	9.4	D
	Through	1,120	981	87.6%	66.1	18.8	E
	Right Turn	500	460	92.1%	5.1	0.7	A
	Second Right						
	Subtotal	1,680	1,493	88.9%	47.2	13.7	D
EB	U Turn	10	9	92.2%	53.5	32.1	D
	Second Left						
	Left Turn	130	124	95.1%	53.8	9.8	D
	Through	140	132	94.1%	37.1	6.5	D
	Right Turn	270	268	99.1%	7.7	2.8	A
	Second Right						
	Subtotal	550	532	96.8%	26.3	2.6	C
WB	U Turn						
	Second Left						
	Left Turn	50	45	89.1%	62.2	14.2	E
	Through	60	67	112.0%	44.8	5.0	D
	Right Turn	30	28	93.4%	26.6	7.3	C
	Second Right						
	Subtotal	140	140	99.8%	46.5	3.7	D
Total		4,560	3,621	79.4%	36.9	7.7	D

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

Mace Ranch IC  
CEQA C+P Mixed-Use  
AM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	210	138	65.6%	57.0	9.2	E
	Through	830	535	64.4%	39.7	3.8	D
	Right Turn	390	254	65.2%	34.9	4.5	C
	Second Right						
	Subtotal	1,430	927	64.8%	41.1	4.2	D
SB	U Turn						
	Second Left						
	Left Turn	30	33	110.1%	64.3	18.6	E
	Through	740	684	92.4%	37.0	20.4	D
	Right Turn	10	6	57.6%	9.0	8.3	A
	Second Right						
	Subtotal	780	723	92.7%	38.0	19.9	D
EB	U Turn						
	Second Left						
	Left Turn	20	23	115.2%	42.4	12.8	D
	Through	100	103	102.5%	45.5	6.3	D
	Right Turn	800	736	92.0%	15.6	13.9	B
	Second Right						
	Subtotal	920	861	93.6%	19.9	12.4	B
WB	U Turn						
	Second Left						
	Left Turn	140	146	104.5%	50.9	12.0	D
	Through	90	91	101.1%	42.3	6.8	D
	Right Turn	20	18	92.2%	25.4	7.9	C
	Second Right						
	Subtotal	250	256	102.3%	46.0	8.3	D
Total		3,380	2,767	81.9%	34.0	9.7	C



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

Mace Ranch IC  
CEQA C+P Mixed-Use  
AM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	450	440	97.7%	5.7	0.6	A
	Through						
	Right Turn	150	145	96.8%	3.1	0.3	A
	Second Right						
	Subtotal	600	585	97.5%	5.0	0.4	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	520	554	106.6%	19.0	2.8	B
	Right Turn						
	Second Right						
	Subtotal	520	554	106.6%	19.0	2.8	B
WB	U Turn						
	Second Left						
	Left Turn						
	Through	410	309	75.4%	10.6	1.4	B
	Right Turn						
	Second Right						
	Subtotal	410	309	75.4%	10.6	1.4	B
Total		1,530	1,448	94.6%	11.6	1.5	B

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

Mace Ranch IC  
CEQA C+P Mixed-Use  
AM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	920	918	99.8%	2.2	0.2	A
	Right Turn	650	624	95.9%	2.2	0.3	A
	Second Right						
	Subtotal	1,570	1,542	98.2%	2.2	0.2	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	900	626	69.5%	1.9	0.1	A
	Right Turn	800	665	83.1%	4.7	0.3	A
	Second Right						
	Subtotal	1,700	1,291	75.9%	3.4	0.2	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		3,270	2,832	86.6%	2.7	0.1	A

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

Mace Ranch IC  
CEQA C+P Mixed-Use  
PM Peak Hour

Intersection 3

Mace Blvd/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	30	27	89.6%	63.8	10.5	E
	Through	860	858	99.8%	45.9	8.8	D
	Right Turn	80	76	95.0%	46.2	14.3	D
	Second Right						
	Subtotal	970	961	99.1%	46.5	8.9	D
SB	U Turn						
	Second Left						
	Left Turn	220	162	73.5%	52.6	9.3	D
	Through	700	468	66.8%	19.6	2.9	B
	Right Turn	260	179	69.0%	2.8	0.3	A
	Second Right						
	Subtotal	1,180	809	68.5%	22.6	2.9	C
EB	U Turn						
	Second Left						
	Left Turn	720	676	93.9%	73.4	10.7	E
	Through	260	258	99.4%	32.9	7.5	C
	Right Turn	140	128	91.6%	2.7	0.2	A
	Second Right						
	Subtotal	1,120	1,063	94.9%	55.1	8.3	E
WB	U Turn						
	Second Left						
	Left Turn	50	45	89.1%	106.8	39.3	F
	Through	50	33	66.0%	110.8	37.6	F
	Right Turn	410	338	82.3%	126.7	35.4	F
	Second Right						
	Subtotal	510	415	81.4%	123.5	35.0	F
Total		3,780	3,247	85.9%	53.0	4.9	D

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

Mace Ranch IC  
CEQA C+P Mixed-Use  
PM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	450	439	97.6%	59.3	8.6	E
	Through	710	638	89.8%	14.1	3.6	B
	Right Turn						
	Second Right						
	Subtotal	1,160	1,077	92.9%	32.7	3.7	C
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,860	1,063	57.2%	73.2	2.3	E
	Right Turn	210	113	53.9%	21.4	3.9	C
	Second Right						
	Subtotal	2,070	1,177	56.8%	68.3	2.4	E
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn	490	413	84.2%	47.2	5.1	D
	Through	10	7	73.0%	47.4	32.2	D
	Right Turn	1,050	847	80.7%	115.5	23.2	F
	Second Right						
	Subtotal	1,550	1,268	81.8%	93.0	17.6	F
Total		4,780	3,521	73.7%	66.1	5.4	E

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

Mace Ranch IC  
CEQA C+P Mixed-Use  
PM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	540	417	77.3%	81.9	23.4	F
	Through	1,100	828	75.3%	94.5	35.8	F
	Right Turn	120	89	74.2%	83.4	35.7	F
	Second Right						
	Subtotal	1,760	1,335	75.8%	90.3	31.7	F
SB	U Turn	10	5	53.8%	55.8	49.0	E
	Second Left						
	Left Turn	80	37	46.1%	100.9	22.5	F
	Through	1,170	601	51.3%	150.6	30.0	F
	Right Turn	190	98	51.7%	2.1	0.4	A
	Second Right						
	Subtotal	1,450	741	51.1%	129.0	27.7	F
EB	U Turn	40	15	37.4%	319.0	124.9	F
	Second Left						
	Left Turn	370	176	47.6%	323.0	76.5	F
	Through	180	88	49.1%	235.8	74.6	F
	Right Turn	640	411	64.2%	160.0	90.5	F
	Second Right						
	Subtotal	1,230	690	56.1%	214.6	46.5	F
WB	U Turn						
	Second Left						
	Left Turn	260	174	67.1%	307.8	125.5	F
	Through	40	24	59.5%	249.1	143.9	F
	Right Turn	50	28	56.8%	212.7	114.3	F
	Second Right						
	Subtotal	350	227	64.7%	289.6	125.4	F
Total		4,790	2,993	62.5%	138.9	28.1	F

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

Mace Ranch IC  
CEQA C+P Mixed-Use  
PM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	470	317	67.5%	63.9	4.0	E
	Through	940	628	66.8%	38.5	4.8	D
	Right Turn	120	86	71.4%	34.1	5.1	C
	Second Right						
	Subtotal	1,530	1,031	67.4%	45.9	3.8	D
SB	U Turn						
	Second Left						
	Left Turn	40	30	74.9%	130.6	43.2	F
	Through	730	419	57.4%	222.3	72.7	F
	Right Turn	20	13	67.2%	112.6	53.9	F
	Second Right						
	Subtotal	790	463	58.6%	212.2	67.7	F
EB	U Turn						
	Second Left						
	Left Turn	10	13	134.4%	45.4	21.5	D
	Through	40	40	100.8%	53.9	14.9	D
	Right Turn	270	224	82.9%	33.5	32.5	C
	Second Right						
	Subtotal	320	278	86.8%	37.4	26.8	D
WB	U Turn						
	Second Left						
	Left Turn	450	167	37.2%	277.4	113.5	F
	Through	70	33	47.2%	50.0	16.3	D
	Right Turn	30	12	38.4%	21.9	19.6	C
	Second Right						
	Subtotal	550	212	38.5%	223.6	81.5	F
Total		3,190	1,983	62.2%	96.1	10.3	F

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

Mace Ranch IC  
CEQA C+P Mixed-Use  
PM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	390	386	99.0%	11.8	5.6	B
	Through						
	Right Turn	180	180	99.8%	4.2	0.7	A
	Second Right						
	Subtotal	570	566	99.2%	9.3	3.7	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	730	679	93.0%	60.9	50.8	E
	Right Turn						
	Second Right						
	Subtotal	730	679	93.0%	60.9	50.8	E
WB	U Turn						
	Second Left						
	Left Turn						
	Through	340	243	71.5%	10.3	1.1	B
	Right Turn						
	Second Right						
	Subtotal	340	243	71.5%	10.3	1.1	B
Total		1,640	1,488	90.7%	32.6	23.3	C

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

Mace Ranch IC  
CEQA C+P Mixed-Use  
PM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	1,160	1,092	94.1%	2.4	0.3	A
	Right Turn	830	779	93.9%	2.7	0.2	A
	Second Right						
	Subtotal	1,990	1,871	94.0%	2.5	0.2	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,180	804	68.1%	1.9	0.2	A
	Right Turn	1,170	680	58.1%	4.8	0.3	A
	Second Right						
	Subtotal	2,350	1,483	63.1%	3.2	0.3	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		4,340	3,354	77.3%	2.8	0.2	A



**J.4.H – MODIFIED CUMULATIVE NO PROJECT**



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

Mace Ranch IC  
Modified CNP  
AM Peak Hour

Intersection 3

Mace Blvd/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	30	27	89.6%	46.6	11.0	D
	Through	690	698	101.1%	33.6	5.0	C
	Right Turn	80	82	102.2%	20.9	8.1	C
	Second Right						
	Subtotal	800	806	100.8%	32.7	5.0	C
SB	U Turn						
	Second Left						
	Left Turn	180	167	93.0%	42.0	5.9	D
	Through	380	366	96.4%	18.3	3.5	B
	Right Turn	300	269	89.7%	2.9	0.3	A
	Second Right						
	Subtotal	860	803	93.4%	18.2	2.5	B
EB	U Turn						
	Second Left						
	Left Turn	530	517	97.6%	34.4	5.1	C
	Through	170	180	105.9%	21.0	3.4	C
	Right Turn	200	210	105.2%	2.7	0.3	A
	Second Right						
	Subtotal	900	908	100.9%	24.5	4.0	C
WB	U Turn						
	Second Left						
	Left Turn	20	18	90.2%	57.4	10.6	E
	Through	60	57	94.7%	37.2	5.8	D
	Right Turn	330	318	96.2%	20.0	7.4	B
	Second Right						
	Subtotal	410	392	95.7%	24.1	6.8	C
Total		2,970	2,910	98.0%	25.0	3.5	C

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

Mace Ranch IC  
Modified CNP  
AM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	320	322	100.7%	50.1	3.8	D
	Through	700	704	100.6%	12.0	1.4	B
	Right Turn						
	Second Right						
	Subtotal	1,020	1,026	100.6%	24.0	1.9	C
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,170	1,050	89.8%	55.0	12.8	D
	Right Turn	160	139	86.6%	15.7	5.5	B
	Second Right						
	Subtotal	1,330	1,189	89.4%	50.3	11.7	D
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn	410	410	100.0%	30.2	2.6	C
	Through	250	10	4.1%	42.8	15.8	D
	Right Turn	830	828	99.8%	32.1	17.1	C
	Second Right						
	Subtotal	1,490	1,249	83.8%	31.8	11.6	C
Total		3,840	3,464	90.2%	35.9	5.6	D

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

Mace Ranch IC  
Modified CNP  
AM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	690	692	100.3%	31.6	6.8	C
	Through	820	808	98.6%	11.3	1.7	B
	Right Turn	20	15	76.8%	8.3	7.6	A
	Second Right						
	Subtotal	1,530	1,516	99.1%	20.7	4.0	C
SB	U Turn	10	11	111.4%	49.6	23.5	D
	Second Left						
	Left Turn	50	45	90.6%	42.0	11.0	D
	Through	980	972	99.1%	48.4	11.7	D
	Right Turn	310	311	100.5%	3.5	0.3	A
	Second Right						
	Subtotal	1,350	1,339	99.2%	37.8	8.8	D
EB	U Turn	10	9	88.3%	41.5	18.8	D
	Second Left						
	Left Turn	60	56	94.1%	37.3	7.4	D
	Through	30	31	102.4%	33.5	12.1	C
	Right Turn	330	311	94.3%	6.1	1.9	A
	Second Right						
	Subtotal	430	407	94.7%	13.5	3.1	B
WB	U Turn						
	Second Left						
	Left Turn	20	18	90.2%	42.8	13.4	D
	Through	70	75	107.0%	39.3	5.5	D
	Right Turn	20	25	122.9%	20.5	10.2	C
	Second Right						
	Subtotal	110	118	106.8%	35.3	6.1	D
Total		3,420	3,380	98.8%	27.1	5.0	C

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

Mace Ranch IC  
Modified CNP  
AM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	310	308	99.5%	23.0	3.0	C
	Through	600	603	100.5%	4.1	0.5	A
	Right Turn						
	Second Right						
	Subtotal	910	911	100.1%	10.5	1.2	B
SB	U Turn						
	Second Left						
	Left Turn						
	Through	780	787	100.9%	11.5	2.0	B
	Right Turn	20	22	111.4%	4.1	0.7	A
	Second Right						
	Subtotal	800	809	101.2%	11.3	2.0	B
EB	U Turn						
	Second Left						
	Left Turn	20	25	122.9%	31.8	6.5	C
	Through						
	Right Turn	570	598	105.0%	4.4	0.5	A
	Second Right						
	Subtotal	590	623	105.6%	5.4	0.7	A
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		2,300	2,344	101.9%	9.5	1.0	A

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

Mace Ranch IC  
Modified CNP  
AM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	450	430	95.7%	5.0	0.5	A
	Through						
	Right Turn	130	123	94.5%	3.2	0.4	A
	Second Right						
	Subtotal	580	553	95.4%	4.6	0.4	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	450	466	103.5%	13.3	2.9	B
	Right Turn						
	Second Right						
	Subtotal	450	466	103.5%	13.3	2.9	B
WB	U Turn						
	Second Left						
	Left Turn						
	Through	390	350	89.7%	10.2	0.8	B
	Right Turn						
	Second Right						
	Subtotal	390	350	89.7%	10.2	0.8	B
Total		1,420	1,369	96.4%	9.0	1.0	A

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

Mace Ranch IC  
Modified CNP  
AM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	1,020	1,013	99.3%	2.4	0.3	A
	Right Turn	530	519	97.9%	2.3	0.2	A
	Second Right						
	Subtotal	1,550	1,531	98.8%	2.3	0.2	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	860	806	93.7%	2.0	0.2	A
	Right Turn	720	640	88.9%	4.5	0.2	A
	Second Right						
	Subtotal	1,580	1,445	91.5%	3.1	0.2	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		3,130	2,977	95.1%	2.7	0.1	A

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

Mace Ranch IC  
Modified CNP  
PM Peak Hour

Intersection 3

Mace Blvd/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	20	22	107.5%	57.6	21.0	E
	Through	750	746	99.4%	35.5	5.0	D
	Right Turn	90	85	94.7%	21.0	9.9	C
	Second Right						
	Subtotal	860	852	99.1%	34.7	5.5	C
SB	U Turn						
	Second Left						
	Left Turn	240	231	96.3%	79.5	32.4	E
	Through	670	601	89.6%	20.0	3.1	B
	Right Turn	290	268	92.4%	4.1	1.4	A
	Second Right						
	Subtotal	1,200	1,100	91.6%	28.6	7.6	C
EB	U Turn						
	Second Left						
	Left Turn	620	621	100.1%	63.7	18.5	E
	Through	240	244	101.6%	30.3	4.0	C
	Right Turn	160	160	100.1%	2.7	0.3	A
	Second Right						
	Subtotal	1,020	1,025	100.4%	46.3	12.2	D
WB	U Turn						
	Second Left						
	Left Turn	50	46	92.9%	43.0	8.5	D
	Through	50	59	117.5%	36.7	6.5	D
	Right Turn	330	317	96.1%	19.8	2.8	B
	Second Right						
	Subtotal	430	422	98.2%	24.7	2.3	C
Total		3,510	3,399	96.8%	35.0	5.8	D



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

Mace Ranch IC  
Modified CNP  
PM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	460	461	100.2%	50.7	3.9	D
	Through	740	701	94.8%	11.5	1.7	B
	Right Turn						
	Second Right						
	Subtotal	1,200	1,162	96.8%	27.0	1.7	C
SB	U Turn Second Left						
	Left Turn						
	Through	1,380	1,175	85.1%	57.7	7.3	E
	Right Turn	230	215	93.3%	18.2	3.8	B
	Second Right						
	Subtotal	1,610	1,389	86.3%	51.7	7.3	D
EB	U Turn Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn Second Left						
	Left Turn	540	558	103.3%	38.8	3.7	D
	Through	10	11	107.5%	38.4	20.8	D
	Right Turn	830	815	98.2%	35.6	15.2	D
	Second Right						
	Subtotal	1,380	1,384	100.3%	37.0	9.4	D
Total		4,190	3,935	93.9%	39.2	3.6	D

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

Mace Ranch IC  
Modified CNP  
PM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	550	502	91.2%	40.3	3.2	D
	Through	970	950	97.9%	26.7	1.7	C
	Right Turn	50	48	95.2%	23.5	8.5	C
	Second Right						
	Subtotal	1,570	1,499	95.5%	31.2	1.6	C
SB	U Turn Second Left	10	8	76.8%	33.4	25.5	C
	Left Turn	80	83	103.7%	56.1	11.8	E
	Through	880	800	90.9%	64.7	24.3	E
	Right Turn	170	157	92.6%	2.1	0.2	A
	Second Right						
	Subtotal	1,140	1,048	91.9%	54.4	18.9	D
EB	U Turn Second Left	40	36	89.3%	106.3	58.6	F
	Left Turn	370	330	89.2%	110.7	57.3	F
	Through	150	144	95.7%	72.0	54.5	E
	Right Turn	680	672	98.9%	29.3	12.7	C
	Second Right						
	Subtotal	1,240	1,182	95.3%	59.6	27.4	E
WB	U Turn Second Left						
	Left Turn	50	53	106.0%	47.0	7.3	D
	Through	40	44	110.4%	40.4	12.6	D
	Right Turn	50	59	117.5%	22.5	6.3	C
	Second Right						
	Subtotal	140	156	111.4%	35.9	6.6	D
Total		4,090	3,885	95.0%	46.1	10.3	D

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

Mace Ranch IC  
Modified CNP  
PM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	520	472	90.8%	19.7	1.7	B
	Through	880	847	96.2%	5.1	0.5	A
	Right Turn						
	Second Right						
	Subtotal	1,400	1,319	94.2%	10.4	0.9	B
SB	U Turn						
	Second Left						
	Left Turn						
	Through	720	697	96.8%	16.8	6.0	B
	Right Turn	10	9	88.3%	2.9	1.3	A
	Second Right						
	Subtotal	730	706	96.7%	16.6	5.8	B
EB	U Turn						
	Second Left						
	Left Turn	10	10	103.7%	32.2	18.2	C
	Through						
	Right Turn	420	417	99.4%	4.2	1.8	A
	Second Right						
	Subtotal	430	428	99.5%	4.9	1.7	A
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		2,560	2,453	95.8%	11.2	2.0	B

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

Mace Ranch IC  
Modified CNP  
PM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	410	421	102.7%	8.5	5.3	A
	Through						
	Right Turn	210	209	99.7%	4.3	0.8	A
	Second Right						
	Subtotal	620	631	101.7%	7.2	3.9	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	610	614	100.6%	31.5	20.3	C
	Right Turn						
	Second Right						
	Subtotal	610	614	100.6%	31.5	20.3	C
WB	U Turn						
	Second Left						
	Left Turn						
	Through	360	349	96.9%	11.4	1.6	B
	Right Turn						
	Second Right						
	Subtotal	360	349	96.9%	11.4	1.6	B
Total		1,590	1,593	100.2%	17.3	8.9	B

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

Mace Ranch IC  
Modified CNP  
PM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	1,200	1,180	98.3%	2.7	0.3	A
	Right Turn	500	506	101.2%	2.5	0.3	A
	Second Right						
	Subtotal	1,700	1,686	99.2%	2.6	0.3	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,200	1,124	93.6%	3.0	1.2	A
	Right Turn	720	617	85.7%	5.3	0.5	A
	Second Right						
	Subtotal	1,920	1,741	90.7%	3.8	0.9	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		3,620	3,426	94.7%	3.2	0.5	A

**J.4.I – MODIFIED CUMULATIVE PLUS PROJECT**



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

Mace Ranch IC  
Modified C+P  
AM Peak Hour

Intersection 3

Mace Blvd/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	30	24	80.6%	51.6	27.6	D
	Through	680	667	98.1%	35.6	14.0	D
	Right Turn	50	43	86.8%	20.5	15.2	C
	Second Right						
	Subtotal	760	735	96.7%	35.2	14.2	D
SB	U Turn						
	Second Left						
	Left Turn	160	113	70.8%	38.2	5.2	D
	Through	290	213	73.5%	17.6	3.5	B
	Right Turn	280	205	73.1%	2.5	0.2	A
	Second Right						
	Subtotal	730	531	72.7%	16.1	2.5	B
EB	U Turn						
	Second Left						
	Left Turn	570	558	98.0%	43.7	14.0	D
	Through	220	231	104.9%	18.5	3.3	B
	Right Turn	190	207	108.9%	2.5	0.2	A
	Second Right						
	Subtotal	980	996	101.6%	29.7	9.4	C
WB	U Turn						
	Second Left						
	Left Turn	20	15	74.9%	42.1	12.7	D
	Through	70	65	93.3%	32.7	6.6	C
	Right Turn	320	322	100.7%	20.3	4.3	C
	Second Right						
	Subtotal	410	402	98.2%	23.2	3.9	C
Total		2,880	2,665	92.5%	27.4	7.5	C

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

Mace Ranch IC  
Modified C+P  
AM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	320	288	90.0%	64.5	17.0	E
	Through	710	624	87.9%	62.7	50.5	E
	Right Turn						
	Second Right						
	Subtotal	1,030	912	88.6%	63.3	40.2	E
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,070	911	85.2%	70.2	10.4	E
	Right Turn	160	137	85.7%	18.6	5.1	B
	Second Right						
	Subtotal	1,230	1,048	85.2%	63.6	10.1	E
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn	410	242	58.9%	153.6	17.5	F
	Through	10	5	49.9%	131.9	88.1	F
	Right Turn	1,400	728	52.0%	260.4	33.4	F
	Second Right						
	Subtotal	1,820	975	53.6%	233.6	28.5	F
Total		4,080	2,936	72.0%	118.5	15.3	F



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

Mace Ranch IC  
Modified C+P  
AM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	730	419	57.4%	80.3	15.4	F
	Through	1,060	496	46.8%	166.8	25.4	F
	Right Turn	320	145	45.2%	154.4	33.1	F
	Second Right						
	Subtotal	2,110	1,060	50.2%	130.8	22.4	F
SB	U Turn Second Left	10	7	73.0%	60.7	41.4	E
	Left Turn	80	62	77.3%	43.3	10.8	D
	Through	800	732	91.5%	28.4	14.2	C
	Right Turn	230	197	85.5%	2.4	0.4	A
	Second Right						
	Subtotal	1,120	998	89.1%	24.5	11.0	C
EB	U Turn Second Left	10	6	61.4%	173.9	129.2	F
	Left Turn	70	46	65.3%	193.5	54.4	F
	Through	30	31	105.0%	42.8	8.0	D
	Right Turn	360	359	99.8%	10.7	11.9	B
	Second Right						
	Subtotal	470	443	94.2%	34.4	15.7	C
WB	U Turn Second Left						
	Left Turn	70	68	96.5%	51.9	22.9	D
	Through	70	65	93.3%	47.0	14.7	D
	Right Turn	20	23	115.2%	45.5	24.6	D
	Second Right						
	Subtotal	160	156	97.4%	50.0	16.6	D
Total		3,860	2,657	68.8%	69.7	11.3	E

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

Mace Ranch IC  
Modified C+P  
AM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	150	65	43.3%	74.5	13.4	E
	Through	440	222	50.5%	89.8	7.2	F
	Right Turn	570	287	50.3%	78.3	4.1	E
	Second Right						
	Subtotal	1,160	574	49.5%	82.1	5.0	F
SB	U Turn						
	Second Left						
	Left Turn	510	381	74.6%	192.7	16.4	F
	Through	540	423	78.3%	90.3	9.6	F
	Right Turn	20	13	67.2%	76.6	13.1	E
	Second Right						
	Subtotal	1,070	817	76.3%	138.0	14.9	F
EB	U Turn						
	Second Left						
	Left Turn	30	23	75.5%	123.6	33.6	F
	Through	320	286	89.5%	112.6	32.4	F
	Right Turn	460	471	102.4%	4.5	0.8	A
	Second Right						
	Subtotal	810	780	96.3%	48.2	15.3	D
WB	U Turn						
	Second Left						
	Left Turn	120	123	102.7%	51.8	7.0	D
	Through	40	46	115.2%	51.4	14.4	D
	Right Turn	60	66	110.1%	20.0	10.0	C
	Second Right						
	Subtotal	220	235	107.0%	43.3	8.5	D
Total		3,260	2,407	73.8%	85.9	7.9	F

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

Mace Ranch IC  
Modified C+P  
AM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	540	564	104.4%	6.0	1.1	A
	Through						
	Right Turn	160	154	96.5%	2.9	0.5	A
	Second Right						
	Subtotal	700	718	102.6%	5.3	0.9	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	440	437	99.2%	18.7	6.0	B
	Right Turn						
	Second Right						
	Subtotal	440	437	99.2%	18.7	6.0	B
WB	U Turn						
	Second Left						
	Left Turn						
	Through	380	296	77.8%	12.0	1.3	B
	Right Turn						
	Second Right						
	Subtotal	380	296	77.8%	12.0	1.3	B
Total		1,520	1,450	95.4%	10.7	2.2	B

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

Mace Ranch IC  
Modified C+P  
AM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	1,030	1,006	97.6%	7.7	8.1	A
	Right Turn	540	522	96.6%	2.2	0.3	A
	Second Right						
	Subtotal	1,570	1,528	97.3%	5.8	5.3	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	730	531	72.7%	1.9	0.2	A
	Right Turn	750	627	83.7%	4.6	0.2	A
	Second Right						
	Subtotal	1,480	1,158	78.3%	3.3	0.1	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		3,050	2,686	88.1%	4.7	3.0	A

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

Mace Ranch IC  
Modified C+P  
PM Peak Hour

Intersection 3

Mace Blvd/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	20	17	86.4%	61.6	10.8	E
	Through	750	761	101.5%	37.1	10.3	D
	Right Turn	90	96	106.7%	24.7	13.5	C
	Second Right						
	Subtotal	860	874	101.7%	36.2	10.2	D
SB	U Turn						
	Second Left						
	Left Turn	230	181	78.6%	53.7	16.5	D
	Through	660	524	79.4%	19.9	2.6	B
	Right Turn	260	207	79.6%	3.3	0.4	A
	Second Right						
	Subtotal	1,150	912	79.3%	23.1	5.2	C
EB	U Turn						
	Second Left						
	Left Turn	630	585	92.9%	54.8	16.9	D
	Through	260	265	101.9%	27.6	3.6	C
	Right Turn	180	174	96.4%	2.8	0.2	A
	Second Right						
	Subtotal	1,070	1,024	95.7%	39.2	10.8	D
WB	U Turn						
	Second Left						
	Left Turn	50	50	100.6%	49.0	9.1	D
	Through	50	51	102.1%	39.8	9.6	D
	Right Turn	330	359	108.7%	29.1	9.5	C
	Second Right						
	Subtotal	430	460	107.0%	32.5	8.6	C
Total		3,510	3,270	93.2%	33.2	5.3	C

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

Mace Ranch IC  
Modified C+P  
PM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	530	516	97.3%	58.8	7.1	E
	Through	620	643	103.7%	12.8	1.9	B
	Right Turn						
	Second Right						
	Subtotal	1,150	1,159	100.8%	33.4	3.8	C
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,720	1,023	59.5%	75.7	2.2	E
	Right Turn	270	147	54.5%	27.1	3.7	C
	Second Right						
	Subtotal	1,990	1,170	58.8%	69.6	2.7	E
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn	490	495	101.1%	39.2	5.4	D
	Through	10	14	142.1%	47.2	18.7	D
	Right Turn	920	876	95.2%	78.6	27.3	E
	Second Right						
	Subtotal	1,420	1,385	97.5%	64.2	18.6	E
Total		4,560	3,714	81.5%	56.3	6.9	E

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

Mace Ranch IC  
Modified C+P  
PM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	560	537	95.9%	63.2	20.4	E
	Through	860	761	88.5%	54.5	30.5	D
	Right Turn	120	112	93.1%	48.9	32.0	D
	Second Right						
	Subtotal	1,540	1,409	91.5%	57.4	26.2	E
SB	U Turn	10	6	61.4%	90.4	52.2	F
	Second Left						
	Left Turn	80	40	49.4%	103.8	20.0	F
	Through	960	520	54.1%	171.6	57.7	F
	Right Turn	180	110	61.0%	2.3	0.3	A
	Second Right						
	Subtotal	1,230	675	54.9%	139.2	44.2	F
EB	U Turn	40	22	53.8%	244.8	63.0	F
	Second Left						
	Left Turn	270	148	54.9%	259.1	79.6	F
	Through	150	87	57.9%	150.3	62.4	F
	Right Turn	740	477	64.5%	176.6	85.8	F
	Second Right						
	Subtotal	1,200	734	61.2%	186.4	55.7	F
WB	U Turn						
	Second Left						
	Left Turn	290	188	64.8%	302.4	79.4	F
	Through	40	22	54.7%	229.9	81.9	F
	Right Turn	70	39	55.4%	238.1	92.6	F
	Second Right						
	Subtotal	400	248	62.1%	286.0	82.0	F
Total		4,370	3,067	70.2%	119.0	18.3	F

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

Mace Ranch IC  
Modified C+P  
PM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	420	310	73.9%	67.1	8.7	E
	Through	670	518	77.4%	51.3	4.9	D
	Right Turn	120	93	77.4%	45.5	7.7	D
	Second Right						
	Subtotal	1,210	922	76.2%	56.3	4.3	E
SB	U Turn						
	Second Left						
	Left Turn	160	154	96.2%	108.2	27.3	F
	Through	470	362	77.0%	147.6	95.1	F
	Right Turn	10	11	111.4%	52.2	52.3	D
	Second Right						
	Subtotal	640	527	82.4%	130.1	70.7	F
EB	U Turn						
	Second Left						
	Left Turn	20	18	92.2%	41.8	14.4	D
	Through	40	44	110.4%	49.0	3.2	D
	Right Turn	240	208	86.7%	41.5	47.0	D
	Second Right						
	Subtotal	300	271	90.2%	42.3	35.1	D
WB	U Turn						
	Second Left						
	Left Turn	520	221	42.5%	283.2	129.2	F
	Through	270	178	65.8%	125.8	35.6	F
	Right Turn	220	120	54.5%	113.6	32.0	F
	Second Right						
	Subtotal	1,010	519	51.4%	184.3	44.9	F
Total		3,160	2,238	70.8%	96.7	18.1	F



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

Mace Ranch IC  
Modified C+P  
PM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	430	415	96.5%	6.1	1.4	A
	Through						
	Right Turn	240	231	96.3%	4.0	0.5	A
	Second Right						
	Subtotal	670	646	96.5%	5.3	1.0	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	640	631	98.6%	28.8	15.6	C
	Right Turn						
	Second Right						
	Subtotal	640	631	98.6%	28.8	15.6	C
WB	U Turn						
	Second Left						
	Left Turn						
	Through	330	276	83.7%	10.3	1.2	B
	Right Turn						
	Second Right						
	Subtotal	330	276	83.7%	10.3	1.2	B
Total		1,640	1,553	94.7%	15.6	6.3	B

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

Mace Ranch IC  
Modified C+P  
PM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	1,150	1,147	99.7%	2.7	0.2	A
	Right Turn	560	564	100.8%	2.4	0.3	A
	Second Right						
	Subtotal	1,710	1,711	100.1%	2.6	0.1	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,150	903	78.5%	2.2	0.3	A
	Right Turn	1,060	614	58.0%	4.9	0.3	A
	Second Right						
	Subtotal	2,210	1,517	68.7%	3.3	0.2	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		3,920	3,229	82.4%	3.0	0.1	A

**J.4.J – MODIFIED CUMULATIVE WITH MIXED-USE ALTERNATIVE**



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

Mace Ranch IC  
Modified C+P Mixed-Use  
AM Peak Hour

Intersection 3

Mace Blvd/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	30	24	80.6%	45.7	14.9	D
	Through	710	710	99.9%	35.3	6.0	D
	Right Turn	80	81	101.8%	23.1	11.0	C
	Second Right						
	Subtotal	820	815	99.4%	34.3	6.3	C
SB	U Turn						
	Second Left						
	Left Turn	180	167	92.8%	40.2	5.0	D
	Through	350	309	88.3%	16.9	4.4	B
	Right Turn	300	256	85.2%	2.9	0.2	A
	Second Right						
	Subtotal	830	732	88.2%	17.3	1.9	B
EB	U Turn						
	Second Left						
	Left Turn	560	546	97.6%	39.0	5.7	D
	Through	190	175	92.0%	22.1	3.3	C
	Right Turn	210	222	105.5%	2.6	0.3	A
	Second Right						
	Subtotal	960	943	98.2%	27.3	3.9	C
WB	U Turn						
	Second Left						
	Left Turn	20	20	97.9%	51.9	11.2	D
	Through	70	63	90.5%	34.7	8.1	C
	Right Turn	330	333	101.0%	21.6	4.6	C
	Second Right						
	Subtotal	420	416	99.1%	25.0	3.8	C
Total		3,030	2,906	95.9%	26.5	3.4	C

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

Mace Ranch IC  
Modified C+P Mixed-Use  
AM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	360	351	97.5%	56.2	6.5	E
	Through	710	717	101.0%	13.5	1.3	B
	Right Turn						
	Second Right						
	Subtotal	1,070	1,068	99.8%	27.6	3.3	C
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,140	975	85.5%	63.1	11.2	E
	Right Turn	170	147	86.3%	18.1	4.9	B
	Second Right						
	Subtotal	1,310	1,121	85.6%	57.4	11.0	E
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn	440	379	86.1%	54.3	9.4	D
	Through	10	7	69.1%	49.3	38.8	D
	Right Turn	1,120	910	81.3%	118.2	7.1	F
	Second Right						
	Subtotal	1,570	1,296	82.5%	99.3	7.9	F
Total		3,950	3,486	88.2%	63.7	4.4	E

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

Mace Ranch IC  
Modified C+P Mixed-Use  
AM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	700	625	89.3%	31.9	3.2	C
	Through	970	829	85.5%	24.9	14.1	C
	Right Turn	160	134	84.0%	22.4	13.3	C
	Second Right						
	Subtotal	1,830	1,589	86.8%	27.4	9.0	C
SB	U Turn	10	11	107.5%	45.7	18.1	D
	Second Left						
	Left Turn	60	55	91.5%	50.0	15.1	D
	Through	920	871	94.6%	44.7	21.1	D
	Right Turn	280	291	103.8%	4.2	1.6	A
	Second Right						
	Subtotal	1,270	1,227	96.6%	35.2	14.3	D
EB	U Turn	10	7	69.1%	54.6	41.2	D
	Second Left						
	Left Turn	60	49	81.3%	68.8	40.3	E
	Through	30	35	117.8%	39.0	10.3	D
	Right Turn	340	334	98.3%	9.4	7.5	A
	Second Right						
	Subtotal	440	425	96.6%	18.8	5.8	B
WB	U Turn						
	Second Left						
	Left Turn	50	44	88.3%	44.0	15.3	D
	Through	70	67	96.0%	39.3	5.4	D
	Right Turn	20	16	80.6%	19.5	9.3	B
	Second Right						
	Subtotal	140	127	91.1%	39.5	5.9	D
Total		3,680	3,368	91.5%	29.5	6.2	C

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

Mace Ranch IC  
Modified C+P Mixed-Use  
AM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	230	191	83.0%	68.4	15.0	E
	Through	620	507	81.8%	50.3	5.1	D
	Right Turn	210	154	73.5%	44.8	5.7	D
	Second Right						
	Subtotal	1,060	852	80.4%	53.7	4.8	D
SB	U Turn						
	Second Left						
	Left Turn	180	172	95.8%	65.4	14.6	E
	Through	690	689	99.9%	32.3	8.8	C
	Right Turn	20	18	90.2%	7.2	3.9	A
	Second Right						
	Subtotal	890	880	98.8%	38.4	7.2	D
EB	U Turn						
	Second Left						
	Left Turn	20	20	97.9%	51.5	12.7	D
	Through	210	204	97.1%	46.4	8.0	D
	Right Turn	480	483	100.6%	4.3	1.8	A
	Second Right						
	Subtotal	710	706	99.5%	17.9	3.9	B
WB	U Turn						
	Second Left						
	Left Turn	100	93	92.9%	48.8	9.9	D
	Through	70	72	102.6%	45.0	7.1	D
	Right Turn	50	45	90.6%	26.6	12.3	C
	Second Right						
	Subtotal	220	210	95.5%	42.7	7.3	D
Total		2,880	2,648	91.9%	38.2	3.1	D

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

Mace Ranch IC  
Modified C+P Mixed-Use  
AM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	510	523	102.6%	4.9	0.6	A
	Through						
	Right Turn	140	142	101.5%	3.3	0.5	A
	Second Right						
	Subtotal	650	665	102.4%	4.6	0.5	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	450	445	98.9%	15.3	3.8	B
	Right Turn						
	Second Right						
	Subtotal	450	445	98.9%	15.3	3.8	B
WB	U Turn						
	Second Left						
	Left Turn						
	Through	400	340	85.1%	12.3	1.5	B
	Right Turn						
	Second Right						
	Subtotal	400	340	85.1%	12.3	1.5	B
Total		1,500	1,451	96.7%	9.7	1.3	A



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

Mace Ranch IC  
Modified C+P Mixed-Use  
AM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left Left Turn						
	Through	1,070	1,065	99.5%	2.5	0.2	A
	Right Turn	530	513	96.8%	2.3	0.3	A
	Second Right						
	Subtotal	1,600	1,578	98.6%	2.4	0.2	A
SB	U Turn Second Left Left Turn						
	Through	830	718	86.6%	1.9	0.1	A
	Right Turn	750	650	86.6%	4.5	0.3	A
	Second Right						
	Subtotal	1,580	1,368	86.6%	3.2	0.2	A
EB	U Turn Second Left Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn Second Left Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		3,180	2,946	92.6%	2.8	0.1	A

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

Mace Ranch IC  
Modified C+P Mixed-Use  
PM Peak Hour

Intersection 3

Mace Blvd/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	20	17	86.4%	56.3	18.3	E
	Through	770	752	97.6%	31.8	3.5	C
	Right Turn	90	89	99.0%	18.8	4.5	B
	Second Right						
	Subtotal	880	858	97.5%	31.0	3.2	C
SB	U Turn						
	Second Left						
	Left Turn	230	196	85.3%	69.2	22.0	E
	Through	680	555	81.6%	18.9	3.0	B
	Right Turn	270	216	79.9%	3.4	0.5	A
	Second Right						
	Subtotal	1,180	967	81.9%	25.8	6.8	C
EB	U Turn						
	Second Left						
	Left Turn	650	609	93.8%	74.3	18.3	E
	Through	260	276	106.2%	33.0	4.8	C
	Right Turn	170	163	95.8%	2.8	0.3	A
	Second Right						
	Subtotal	1,080	1,048	97.1%	52.7	12.1	D
WB	U Turn						
	Second Left						
	Left Turn	50	44	87.6%	50.1	6.4	D
	Through	50	49	97.5%	40.1	4.1	D
	Right Turn	340	336	98.9%	27.1	4.2	C
	Second Right						
	Subtotal	440	429	97.5%	31.0	3.4	C
Total		3,580	3,302	92.2%	36.5	4.2	D

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

Mace Ranch IC  
Modified C+P Mixed-Use  
PM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	490	473	96.6%	59.1	7.6	E
	Through	690	659	95.4%	14.7	8.4	B
	Right Turn						
	Second Right						
	Subtotal	1,180	1,132	95.9%	33.2	5.5	C
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,580	1,117	70.7%	71.7	3.8	E
	Right Turn	260	161	61.7%	22.4	2.4	C
	Second Right						
	Subtotal	1,840	1,277	69.4%	65.5	3.6	E
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn	500	505	101.1%	36.5	3.4	D
	Through	10	10	96.0%	40.0	27.8	D
	Right Turn	890	863	97.0%	55.4	20.3	E
	Second Right						
	Subtotal	1,400	1,378	98.4%	48.3	12.9	D
Total		4,420	3,787	85.7%	49.6	5.9	D

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

Mace Ranch IC  
Modified C+P Mixed-Use  
PM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	550	477	86.7%	70.4	17.3	E
	Through	940	807	85.9%	80.2	27.6	F
	Right Turn	90	74	81.9%	67.7	26.8	E
	Second Right						
	Subtotal	1,580	1,358	85.9%	76.4	22.0	E
SB	U Turn	10	5	53.8%	44.4	48.3	D
	Second Left						
	Left Turn	80	55	68.2%	83.8	14.6	F
	Through	930	616	66.2%	131.2	31.3	F
	Right Turn	180	144	80.2%	2.9	0.6	A
	Second Right						
	Subtotal	1,200	820	68.3%	105.0	24.5	F
EB	U Turn	40	27	67.2%	194.4	104.5	F
	Second Left						
	Left Turn	320	228	71.4%	180.2	82.6	F
	Through	150	122	81.7%	115.7	66.5	F
	Right Turn	740	539	72.9%	147.2	62.6	F
	Second Right						
	Subtotal	1,250	917	73.4%	150.6	47.2	F
WB	U Turn						
	Second Left						
	Left Turn	170	142	83.6%	125.1	75.0	F
	Through	40	36	91.2%	75.4	35.4	E
	Right Turn	70	68	97.1%	52.1	25.0	D
	Second Right						
	Subtotal	280	247	88.0%	97.4	53.8	F
Total		4,310	3,341	77.5%	102.2	15.1	F

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

Mace Ranch IC  
Modified C+P Mixed-Use  
PM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	490	389	79.3%	61.1	4.7	E
	Through	780	635	81.4%	34.3	5.1	C
	Right Turn	70	58	83.4%	29.4	5.1	C
	Second Right						
	Subtotal	1,340	1,082	80.8%	43.8	3.3	D
SB	U Turn Second Left						
	Left Turn	90	79	88.3%	92.6	45.5	F
	Through	630	469	74.4%	130.8	84.5	F
	Right Turn	20	19	96.0%	66.5	67.0	E
	Second Right						
	Subtotal	740	568	76.7%	123.3	77.4	F
EB	U Turn Second Left						
	Left Turn	20	21	105.6%	44.0	16.1	D
	Through	40	38	95.0%	47.3	9.7	D
	Right Turn	330	305	92.5%	38.1	39.4	D
	Second Right						
	Subtotal	390	364	93.4%	39.4	34.1	D
WB	U Turn Second Left						
	Left Turn	240	169	70.4%	111.4	78.2	F
	Through	150	137	91.6%	60.9	13.0	E
	Right Turn	160	144	89.8%	49.8	12.2	D
	Second Right						
	Subtotal	550	450	81.8%	73.4	29.0	E
Total		3,020	2,464	81.6%	63.8	21.2	E

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

Mace Ranch IC  
Modified C+P Mixed-Use  
PM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	430	408	94.8%	9.3	4.1	A
	Through						
	Right Turn	240	228	94.9%	4.2	0.5	A
	Second Right						
	Subtotal	670	636	94.9%	7.5	2.8	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	650	643	99.0%	35.4	15.2	D
	Right Turn						
	Second Right						
	Subtotal	650	643	99.0%	35.4	15.2	D
WB	U Turn						
	Second Left						
	Left Turn						
	Through	340	284	83.5%	11.5	1.3	B
	Right Turn						
	Second Right						
	Subtotal	340	284	83.5%	11.5	1.3	B
Total		1,660	1,562	94.1%	19.7	7.2	B

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

Mace Ranch IC  
Modified C+P Mixed-Use  
PM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	1,180	1,150	97.4%	2.8	0.3	A
	Right Turn	580	553	95.4%	2.3	0.2	A
	Second Right						
	Subtotal	1,760	1,703	96.8%	2.6	0.2	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,180	990	83.9%	2.3	0.4	A
	Right Turn	900	633	70.3%	4.8	0.3	A
	Second Right						
	Subtotal	2,080	1,623	78.0%	3.3	0.3	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		3,840	3,326	86.6%	3.0	0.1	A

## **J.5 – INTERSECTION MITIGATION ANALYSES**

- A. Existing Plus Project**
- B. Existing Plus Mixed-Use Alternative**
- C. CEQA Cumulative Plus Project**
- D. CEQA Cumulative Plus Mixed-Use Alternative**
- E. Modified Cumulative Plus Project**
- F. Modified Cumulative Plus Mixed-Use Alternative**























**J.5.A – EXISTING PLUS PROJECT**



HCM 2010 Signalized Intersection Summary  
 12: Monarch Lane & Covell Blvd



















E+P MRIC Interchange Alternative  
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	0	1144	29	1	9	437	0	34	0	65	0	0
Number	7	4	14		3	8	18	5	2	12	1	6
Initial Q (Qb), veh	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		0.97	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
Adj Sat Flow, veh/h/ln	1863	1862	1900		1740	1827	1900	1900	1839	1900	1900	1863
Adj Flow Rate, veh/h	0	1192	30		9	455	0	35	0	68	0	0
Adj No. of Lanes	1	2	0		1	2	0	0	1	0	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
Percent Heavy Veh, %	2	2	2		10	4	4	2	2	2	2	2
Cap, veh/h	275	1909	48		405	1879	0	246	16	151	0	0
Arrive On Green	0.00	0.54	0.54		0.54	0.54	0.00	0.15	0.00	0.15	0.00	0.00
Sat Flow, veh/h	932	3526	89		424	3563	0	402	107	988	0	0
Grp Volume(v), veh/h	0	598	624		9	455	0	103	0	0	0	0
Grp Sat Flow(s),veh/h/ln	932	1769	1846		424	1736	0	1497	0	0	0	0
Q Serve(g_s), s	0.0	6.1	6.1		0.4	1.8	0.0	0.8	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.1	6.1		6.5	1.8	0.0	1.6	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.05		1.00		0.00	0.34		0.66	0.00	
Lane Grp Cap(c), veh/h	275	958	999		405	1879	0	413	0	0	0	0
V/C Ratio(X)	0.00	0.62	0.62		0.02	0.24	0.00	0.25	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	341	1082	1129		435	2123	0	1087	0	0	0	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
Upstream Filter(I)	0.00	1.00	1.00		1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	4.2	4.2		6.4	3.2	0.0	10.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.9		0.0	0.1	0.0	0.3	0.0	0.0	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
%ile BackOfQ(-26165%),veh/ln	0.0	3.1	3.2		0.0	0.8	0.0	0.7	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	5.1	5.0		6.4	3.2	0.0	10.4	0.0	0.0	0.0	0.0
LnGrp LOS		A	A		A	A		B				
Approach Vol, veh/h		1222				464			103			1
Approach Delay, s/veh		5.1				3.3			10.4			9.4
Approach LOS		A				A			B			A
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		8.0		18.2		8.0		18.2				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		3.6		8.1		2.0		8.5				
Green Ext Time (p_c), s		0.4		5.7		0.4		5.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			4.9									
HCM 2010 LOS			A									
<b>Notes</b>												
User approved ignoring U-Turning movement.												

Movement	SBR
Lane Configurations	
Volume (veh/h)	1
Number	16
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.97
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	1
Adj No. of Lanes	0
Peak Hour Factor	0.96
Percent Heavy Veh, %	2
Cap, veh/h	235
Arrive On Green	0.15
Sat Flow, veh/h	1537
Grp Volume(v), veh/h	1
Grp Sat Flow(s),veh/h/ln	1537
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	235
V/C Ratio(X)	0.00
Avail Cap(c_a), veh/h	940
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	9.4
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(-26165%),veh/ln	0.0
LnGrp Delay(d),s/veh	9.4
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer	

HCM 2010 Signalized Intersection Summary  
 12: Monarch Lane & Covell Blvd

E+P MRIC Interchange Alternative  
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	490	40	40	1038	0	127	1	11	2	0	1
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		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	1863	1861	1900	1727	1827	1900	1900	1860	1900	1900	1863	1900
Adj Flow Rate, veh/h	1	521	43	43	1104	0	135	1	12	2	0	1
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	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, %	2	2	2	10	4	4	2	2	2	2	2	2
Cap, veh/h	414	1711	141	599	1795	0	491	10	22	383	40	101
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.00	0.19	0.19	0.19	0.19	0.00	0.19
Sat Flow, veh/h	508	3309	272	782	3563	0	1263	53	116	859	215	537
Grp Volume(v), veh/h	1	278	286	43	1104	0	148	0	0	3	0	0
Grp Sat Flow(s),veh/h/ln	508	1768	1813	782	1736	0	1432	0	0	1611	0	0
Q Serve(g_s), s	0.0	2.4	2.5	0.9	6.1	0.0	2.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.1	2.4	2.5	3.4	6.1	0.0	2.5	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.15	1.00		0.00	0.91		0.08	0.67		0.33
Lane Grp Cap(c), veh/h	414	914	938	599	1795	0	523	0	0	524	0	0
V/C Ratio(X)	0.00	0.30	0.31	0.07	0.62	0.00	0.28	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	451	1044	1071	657	2050	0	1095	0	0	1105	0	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)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.8	3.7	3.8	4.7	4.6	0.0	9.9	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.1	0.4	0.0	0.3	0.0	0.0	0.0	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(-26165%),veh/ln	0.0	1.2	1.2	0.2	2.9	0.0	1.0	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	6.8	3.9	3.9	4.8	5.1	0.0	10.2	0.0	0.0	9.0	0.0	0.0
LnGrp LOS	A	A	A	A	A		B			A		
Approach Vol, veh/h		565			1147			148				3
Approach Delay, s/veh		3.9			5.1			10.2				9.0
Approach LOS		A			A			B				A
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		9.1		18.0		9.1		18.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		4.5		8.1		2.0		8.1				
Green Ext Time (p_c), s		0.6		5.8		0.6		5.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			5.1									
HCM 2010 LOS			A									

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

**Mace Ranch IC**  
**Existing with Project Mitigated**  
**AM Peak Hour**

**Intersection 3**                      **Mace Blvd/Chiles Rd**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	31	29	93.5%	42.8	7.6	D
	Through	447	451	100.9%	30.1	1.6	C
	Right Turn	71	71	100.0%	8.2	2.1	A
	Subtotal	549	551	100.4%	27.9	1.6	C
SB	Left Turn	127	131	103.1%	39.3	3.9	D
	Through	161	166	103.0%	19.3	2.9	B
	Right Turn	164	165	100.7%	3.3	0.2	A
	Subtotal	452	462	102.2%	19.3	2.0	B
EB	Left Turn	609	598	98.2%	28.4	1.6	C
	Through	116	114	98.2%	13.3	2.3	B
	Right Turn	92	89	96.7%	2.5	0.1	A
	Subtotal	817	801	98.1%	23.4	1.4	C
WB	Left Turn	15	13	88.0%	39.7	7.1	D
	Through	75	76	100.7%	28.1	3.2	C
	Right Turn	273	275	100.8%	12.2	1.8	B
	Subtotal	363	364	100.3%	16.5	1.6	B
<b>Total</b>		<b>2,181</b>	<b>2,178</b>	<b>99.9%</b>	<b>22.5</b>	<b>1.1</b>	<b>C</b>

**Intersection 104**                      **Mace Blvd/I-80 EB Ramps**                      **Uncontrolled**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	902	905	100.4%	2.0	0.1	A
	Right Turn	430	422	98.1%	1.7	0.1	A
	Subtotal	1,332	1,327	99.6%	1.9	0.1	A
SB	Left Turn						
	Through	452	461	102.0%	2.0	0.2	A
	Right Turn	744	741	99.5%	3.9	0.2	A
	Subtotal	1,196	1,202	100.5%	3.2	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
<b>Total</b>		<b>2,528</b>	<b>2,529</b>	<b>100.0%</b>	<b>2.5</b>	<b>0.1</b>	<b>A</b>

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

**Mace Ranch IC**  
**Existing with Project Mitigated**  
**AM Peak Hour**

**Intersection 4**

**Mace Blvd/I-80 WB Ramps**

**Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	370	377	102.0%	19.5	2.1	B
	Through	532	528	99.3%	26.3	1.9	C
	Right Turn						
	Subtotal	902	906	100.4%	23.4	1.0	C
SB	Left Turn						
	Through	965	969	100.4%	42.2	5.5	D
	Right Turn	206	208	101.1%	35.0	4.6	C
	Subtotal	1,171	1,178	100.6%	40.9	5.2	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	231	236	102.2%	44.8	4.4	D
	Through	1	2	150.0%	33.8	26.1	C
	Right Turn	1,540	1,518	98.6%	14.2	1.3	B
	Subtotal	1,772	1,756	99.1%	18.4	1.0	B
Total		3,845	3,839	99.8%	26.5	1.8	C

**Intersection 5**

**Mace Blvd/2nd St-Co Rd 32A**

**Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	555	546	98.4%	24.1	1.5	C
	Through	1,103	1,094	99.1%	13.9	1.0	B
	Right Turn	414	405	97.9%	13.9	1.0	B
	Subtotal	2,072	2,045	98.7%	16.7	0.9	B
SB	Left Turn	58	55	95.3%	40.2	3.3	D
	Through	815	822	100.8%	22.9	1.5	C
	Right Turn	32	32	100.9%	5.4	0.4	A
	Subtotal	905	910	100.5%	23.3	1.5	C
EB	Left Turn	36	38	106.4%	33.5	2.5	C
	Through	23	25	107.8%	34.8	5.1	C
	Right Turn	280	277	99.0%	13.3	0.8	B
	Subtotal	339	340	100.4%	17.1	0.6	B
WB	Left Turn	76	71	93.8%	30.7	2.6	C
	Through	67	65	96.7%	28.8	2.3	C
	Right Turn	15	15	102.7%	12.8	3.7	B
	Subtotal	158	152	95.9%	28.1	1.7	C
Total		3,474	3,446	99.2%	19.0	0.7	B

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

**Mace Ranch IC**  
**Existing with Project Mitigated**  
**AM Peak Hour**

**Intersection 6**                      **Mace Blvd/Alhambra Dr**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	21	21	98.1%	63.3	7.1	E
	Through	336	334	99.4%	45.9	2.4	D
	Right Turn	794	792	99.7%	19.8	1.5	B
	Subtotal	1,151	1,147	99.6%	28.1	1.5	C
SB	Left Turn	511	501	98.0%	78.3	12.4	E
	Through	405	400	98.7%	10.6	1.7	B
	Right Turn	9	10	112.2%	2.6	0.2	A
	Subtotal	925	911	98.5%	47.8	8.0	D
EB	Left Turn	20	20	98.5%	58.7	8.7	E
	Through	91	93	101.6%	53.8	4.4	D
	Right Turn	330	338	102.5%	3.3	0.1	A
	Subtotal	441	451	102.2%	16.0	0.9	B
WB	Left Turn	169	169	99.7%	51.3	3.2	D
	Through	14	14	100.7%	51.7	18.6	D
	Right Turn	45	48	107.1%	11.4	2.6	B
	Subtotal	228	231	101.2%	42.8	3.3	D
<b>Total</b>		<b>2,745</b>	<b>2,739</b>	<b>99.8%</b>	<b>34.0</b>	<b>2.8</b>	<b>C</b>

**Intersection 103**                      **I-80 EB On-ramp/Chiles Rd**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	476	470	98.7%	4.9	0.2	A
	Through						
	Right Turn	99	101	102.1%	2.7	0.3	A
	Subtotal	575	571	99.3%	4.5	0.2	A
EB	Left Turn						
	Through	341	334	98.0%	9.7	0.6	A
	Right Turn						
	Subtotal	341	334	98.0%	9.7	0.6	A
WB	Left Turn						
	Through	270	270	100.1%	11.2	0.6	B
	Right Turn						
	Subtotal	270	270	100.1%	11.2	0.6	B
<b>Total</b>		<b>1,186</b>	<b>1,175</b>	<b>99.1%</b>	<b>7.5</b>	<b>0.2</b>	<b>A</b>

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

**Mace Ranch IC**  
**Existing with Project Mitigated**  
**PM Peak Hour**

**Intersection 3**                      **Mace Blvd/Chiles Rd**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	25	25	101.2%	34.5	4.8	C
	Through	400	404	101.0%	22.5	1.4	C
	Right Turn	95	93	97.9%	5.3	0.7	A
	Subtotal	520	522	100.4%	20.0	1.0	C
SB	Left Turn	174	165	94.7%	32.8	2.9	C
	Through	376	372	99.0%	13.9	1.0	B
	Right Turn	210	212	100.7%	3.2	0.1	A
	Subtotal	760	748	98.5%	15.0	1.2	B
EB	Left Turn	509	523	102.7%	39.9	4.2	D
	Through	210	204	97.1%	18.9	1.4	B
	Right Turn	155	152	97.9%	2.8	0.1	A
	Subtotal	874	878	100.5%	28.6	3.0	C
WB	Left Turn	41	40	96.3%	29.8	3.2	C
	Through	65	65	99.7%	27.0	2.3	C
	Right Turn	202	198	98.1%	8.9	0.4	A
	Subtotal	308	302	98.2%	15.5	1.0	B
<b>Total</b>		<b>2,462</b>	<b>2,451</b>	<b>99.6%</b>	<b>21.1</b>	<b>1.1</b>	<b>C</b>

**Intersection 104**                      **Mace Blvd/I-80 EB Ramps**                      **Uncontrolled**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	761	764	100.4%	1.9	0.1	A
	Right Turn	353	362	102.6%	1.7	0.1	A
	Subtotal	1,114	1,127	101.1%	1.8	0.1	A
SB	Left Turn						
	Through	760	747	98.3%	1.9	0.1	A
	Right Turn	1,159	1,126	97.1%	4.1	0.1	A
	Subtotal	1,919	1,873	97.6%	3.2	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
<b>Total</b>		<b>3,033</b>	<b>3,000</b>	<b>98.9%</b>	<b>2.7</b>	<b>0.1</b>	<b>A</b>



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

**Mace Ranch IC**  
**Existing with Project Mitigated**  
**PM Peak Hour**

**Intersection 4**                      **Mace Blvd/I-80 WB Ramps**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	248	245	98.7%	40.2	3.9	D
	Through	513	519	101.2%	14.5	0.8	B
	Right Turn						
	Subtotal	761	764	100.4%	22.7	1.2	C
SB	Left Turn						
	Through	1,511	1,459	96.5%	40.3	7.8	D
	Right Turn	466	453	97.3%	33.9	5.9	C
	Subtotal	1,977	1,912	96.7%	38.8	7.3	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	408	409	100.3%	39.8	5.8	D
	Through	1	1	110.0%	40.1	29.7	D
	Right Turn	905	910	100.6%	14.2	1.8	B
	Subtotal	1,314	1,321	100.5%	22.3	2.2	C
<b>Total</b>		<b>4,052</b>	<b>3,996</b>	<b>98.6%</b>	<b>30.3</b>	<b>3.8</b>	<b>C</b>

**Intersection 5**                      **Mace Blvd/2nd St-Co Rd 32A**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	468	465	99.3%	38.2	1.9	D
	Through	820	834	101.7%	34.9	7.2	C
	Right Turn	130	132	101.5%	16.5	4.1	B
	Subtotal	1,418	1,431	100.9%	34.3	4.5	C
SB	Left Turn	89	86	97.1%	83.6	12.8	F
	Through	1,013	973	96.0%	97.3	24.0	F
	Right Turn	74	77	103.6%	8.2	2.5	A
	Subtotal	1,176	1,136	96.6%	90.3	21.9	F
EB	Left Turn	135	120	89.2%	90.3	38.0	F
	Through	141	138	97.5%	102.0	40.6	F
	Right Turn	566	554	97.8%	103.9	46.9	F
	Subtotal	842	812	96.4%	101.7	44.4	F
WB	Left Turn	398	393	98.8%	125.4	51.9	F
	Through	27	26	94.8%	51.1	11.5	D
	Right Turn	60	61	101.8%	19.7	11.9	B
	Subtotal	485	480	98.9%	108.0	43.8	F
<b>Total</b>		<b>3,921</b>	<b>3,858</b>	<b>98.4%</b>	<b>74.3</b>	<b>13.6</b>	<b>E</b>

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

**Mace Ranch IC**  
**Existing with Project Mitigated**  
**PM Peak Hour**

**Intersection 6**                      **Mace Blvd/Alhambra Dr**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	281	286	101.9%	51.3	7.8	D
	Through	552	555	100.5%	36.9	5.6	D
	Right Turn	156	156	100.1%	5.7	0.6	A
	Subtotal	989	997	100.8%	36.2	5.5	D
SB	Left Turn	136	139	102.4%	48.1	5.5	D
	Through	235	237	100.8%	27.5	3.6	C
	Right Turn	13	14	110.8%	3.0	0.4	A
	Subtotal	384	391	101.7%	34.0	3.0	C
EB	Left Turn	8	8	93.8%	48.8	5.6	D
	Through	12	14	115.0%	42.1	8.9	D
	Right Turn	60	59	97.5%	2.2	0.1	A
	Subtotal	80	80	99.8%	13.5	3.0	B
WB	Left Turn	881	855	97.0%	55.8	23.7	E
	Through	115	113	98.3%	30.8	4.2	C
	Right Turn	223	215	96.5%	21.7	3.4	C
	Subtotal	1,219	1,183	97.0%	47.4	18.4	D
<b>Total</b>		<b>2,672</b>	<b>2,651</b>	<b>99.2%</b>	<b>40.1</b>	<b>8.6</b>	<b>D</b>

**Intersection 103**                      **I-80 EB On-ramp/Chiles Rd**                      **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	433	428	98.8%	5.2	0.2	A
	Through						
	Right Turn	114	109	95.4%	2.9	0.5	A
	Subtotal	547	537	98.1%	4.7	0.2	A
EB	Left Turn						
	Through	441	448	101.6%	11.4	1.4	B
	Right Turn						
	Subtotal	441	448	101.6%	11.4	1.4	B
WB	Left Turn						
	Through	300	302	100.6%	11.4	0.6	B
	Right Turn						
	Subtotal	300	302	100.6%	11.4	0.6	B
<b>Total</b>		<b>1,288</b>	<b>1,287</b>	<b>99.9%</b>	<b>8.6</b>	<b>0.6</b>	<b>A</b>

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

Mace Ranch IC  
Existing with Project Mitigated  
AM Peak Hour

Intersection 3 Mace Blvd/Chiles Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	31	33	107.4%	43.3	2.7	D
	Through	447	437	97.8%	30.0	1.9	C
	Right Turn	71	77	108.6%	7.9	2.2	A
	Subtotal	549	547	99.7%	27.7	1.8	C
SB	Left Turn	127	131	103.4%	39.8	5.8	D
	Through	161	166	102.9%	19.5	2.3	B
	Right Turn	164	163	99.2%	3.4	0.1	A
	Subtotal	452	460	101.7%	19.7	2.9	B
EB	Left Turn	609	610	100.2%	28.6	1.3	C
	Through	116	117	100.4%	14.7	1.8	B
	Right Turn	92	96	104.0%	2.5	0.1	A
	Subtotal	817	822	100.6%	23.6	1.0	C
WB	Left Turn	15	16	108.0%	38.6	4.6	D
	Through	75	77	102.8%	29.8	2.1	C
	Right Turn	273	275	100.6%	12.4	0.9	B
	Subtotal	363	368	101.3%	17.2	0.9	B
Total		2,181	2,197	100.7%	22.7	1.0	C

Intersection 104 Mace Blvd/I-80 EB Ramps Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through	902	903	100.1%	2.0	0.1	A
	Right Turn	430	421	98.0%	1.7	0.1	A
	Subtotal	1,332	1,324	99.4%	1.9	0.0	A
SB	Left Turn						
	Through	452	460	101.8%	2.0	0.1	A
	Right Turn	744	751	100.9%	4.1	0.2	A
	Subtotal	1,196	1,211	101.2%	3.3	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,528	2,535	100.3%	2.6	0.1	A

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

Mace Ranch IC  
Existing with Project Mitigated  
AM Peak Hour

Intersection 4 Mace Blvd/I-80 WB Ramps Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	370	369	99.6%	20.1	1.6	C
	Through	532	533	100.2%	26.2	1.3	C
	Right Turn						
	Subtotal	902	902	100.0%	23.7	0.6	C
SB	Left Turn						
	Through	965	982	101.7%	42.5	6.3	D
	Right Turn	206	205	99.3%	34.9	5.4	C
	Subtotal	1,171	1,186	101.3%	41.2	6.0	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	231	232	100.3%	45.2	6.2	D
	Through	1	1	50.0%	9.9	14.9	A
	Right Turn	1,540	1,563	101.5%	16.3	1.3	B
	Subtotal	1,772	1,795	101.3%	20.1	1.6	C
Total		3,845	3,884	101.0%	27.4	2.4	C

Intersection 5 Mace Blvd/2nd St-Co Rd 32A Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	555	568	102.3%	24.6	1.0	C
	Through	1,103	1,113	100.9%	28.7	6.8	C
	Right Turn	414	414	100.1%	39.1	12.0	D
	Subtotal	2,072	2,095	101.1%	29.7	6.0	C
SB	Left Turn	58	59	101.2%	42.8	5.2	D
	Through	815	823	100.9%	24.2	2.0	C
	Right Turn	32	32	98.4%	5.6	0.5	A
	Subtotal	905	913	100.9%	24.7	2.0	C
EB	Left Turn	36	34	93.6%	35.7	3.6	D
	Through	23	21	93.0%	35.2	3.8	D
	Right Turn	280	284	101.5%	13.3	0.9	B
	Subtotal	339	339	100.1%	16.9	0.7	B
WB	Left Turn	76	84	110.7%	31.5	2.9	C
	Through	67	68	102.1%	30.6	2.6	C
	Right Turn	15	13	88.0%	15.6	6.5	B
	Subtotal	158	166	104.9%	29.8	1.6	C
Total		3,474	3,513	101.1%	27.2	3.6	C

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

Mace Ranch IC  
Existing with Project Mitigated  
AM Peak Hour

Intersection 6 Mace Blvd/Alhambra Dr Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	21	23	110.5%	57.7	11.1	E
	Through	666	679	101.9%	41.7	10.4	D
	Right Turn	464	460	99.2%	9.0	0.5	A
	Subtotal	1,151	1,162	101.0%	29.2	6.7	C
SB	Left Turn	151	151	99.7%	37.6	2.2	D
	Through	480	482	100.4%	8.5	0.8	A
	Right Turn	9	10	107.8%	2.5	0.2	A
	Subtotal	640	642	100.3%	15.2	0.9	B
EB	Left Turn	20	18	89.5%	37.7	3.2	D
	Through	91	91	99.7%	38.1	2.3	D
	Right Turn	330	331	100.4%	3.2	0.1	A
	Subtotal	441	440	99.8%	11.8	1.1	B
WB	Left Turn	94	98	104.1%	35.2	2.9	D
	Through	14	14	102.1%	33.7	6.4	C
	Right Turn	25	27	107.6%	15.2	4.7	B
	Subtotal	133	139	104.6%	31.2	3.2	C
Total		2,365	2,383	100.8%	22.4	3.4	C

Intersection 103 I-80 EB On-ramp/Chiles 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	476	479	100.6%	4.9	0.2	A
	Through						
	Right Turn	99	100	101.1%	2.5	0.3	A
	Subtotal	575	579	100.7%	4.5	0.2	A
EB	Left Turn						
	Through	341	342	100.2%	9.7	0.6	A
	Right Turn						
	Subtotal	341	342	100.2%	9.7	0.6	A
WB	Left Turn						
	Through	270	273	101.1%	10.8	0.7	B
	Right Turn						
	Subtotal	270	273	101.1%	10.8	0.7	B
Total		1,186	1,194	100.6%	7.4	0.2	A

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

Mace Ranch IC  
Existing with Project Mitigated  
AM Peak Hour

Intersection 205

Mace Blvd/Mace Ranch IC Driveway 1

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through	241	249	103.5%	34.7	2.6	C
	Right Turn	470	473	100.7%	29.1	2.5	C
	Subtotal	711	723	101.6%	31.1	2.4	C
SB	Left Turn	360	364	101.1%	36.5	4.5	D
	Through	565	567	100.3%	3.4	0.5	A
	Right Turn						
	Subtotal	925	931	100.6%	16.3	1.8	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	75	74	98.4%	34.8	2.2	C
	Through						
	Right Turn	70	73	104.1%	6.2	0.8	A
	Subtotal	145	147	101.2%	20.5	1.8	C
Total		1,781	1,800	101.1%	22.6	1.3	C

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

Mace Ranch IC  
Existing with Project Mitigated  
PM Peak Hour

Intersection 3 Mace Blvd/Chiles Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	25	24	97.2%	36.1	4.4	D
	Through	400	402	100.5%	22.6	1.4	C
	Right Turn	95	92	96.6%	5.7	1.5	A
	Subtotal	520	518	99.6%	20.2	1.2	C
SB	Left Turn	174	172	98.7%	32.3	2.3	C
	Through	376	365	97.2%	14.3	1.1	B
	Right Turn	210	205	97.4%	3.2	0.2	A
	Subtotal	760	742	97.6%	15.4	1.2	B
EB	Left Turn	509	513	100.9%	42.1	10.9	D
	Through	210	211	100.7%	18.3	1.3	B
	Right Turn	155	155	99.8%	2.8	0.1	A
	Subtotal	874	880	100.6%	29.6	7.0	C
WB	Left Turn	41	41	100.7%	33.9	3.6	C
	Through	65	67	102.6%	26.8	2.8	C
	Right Turn	202	202	99.9%	8.7	0.4	A
	Subtotal	308	310	100.6%	16.0	1.3	B
Total		2,462	2,449	99.5%	21.6	2.7	C

Intersection 104 Mace Blvd/I-80 EB Ramps Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	761	766	100.7%	1.8	0.1	A
	Right Turn	353	355	100.5%	1.7	0.1	A
	Subtotal	1,114	1,121	100.6%	1.8	0.1	A
SB	Left Turn						
	Through	760	744	97.9%	1.9	0.1	A
	Right Turn	1,159	1,119	96.6%	4.0	0.1	A
	Subtotal	1,919	1,863	97.1%	3.1	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		3,033	2,984	98.4%	2.6	0.1	A

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

Mace Ranch IC  
Existing with Project Mitigated  
PM Peak Hour

Intersection 4 Mace Blvd/I-80 WB Ramps Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	248	252	101.8%	42.5	3.9	D
	Through	513	513	100.0%	14.5	1.1	B
	Right Turn						
	Subtotal	761	766	100.6%	23.7	1.7	C
SB	Left Turn						
	Through	1,511	1,466	97.0%	37.4	4.5	D
	Right Turn	466	459	98.5%	32.4	3.8	C
	Subtotal	1,977	1,925	97.3%	36.2	4.3	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	408	398	97.6%	38.9	5.8	D
	Through	1	1	80.0%	26.6	26.7	C
	Right Turn	905	908	100.3%	13.8	1.8	B
	Subtotal	1,314	1,307	99.4%	21.5	2.3	C
Total		4,052	3,997	98.6%	29.0	2.4	C

Intersection 5 Mace Blvd/2nd St-Co Rd 32A Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	468	472	100.9%	39.1	1.6	D
	Through	820	812	99.1%	49.8	19.1	D
	Right Turn	130	129	99.4%	22.0	10.3	C
	Subtotal	1,418	1,414	99.7%	43.8	11.9	D
SB	Left Turn	89	84	94.3%	85.0	13.5	F
	Through	1,013	991	97.8%	102.8	19.2	F
	Right Turn	74	74	100.4%	10.5	3.1	B
	Subtotal	1,176	1,149	97.7%	95.5	17.5	F
EB	Left Turn	135	134	99.4%	94.2	22.9	F
	Through	141	134	94.8%	99.3	22.1	F
	Right Turn	566	552	97.5%	102.5	25.7	F
	Subtotal	842	820	97.3%	100.7	24.1	F
WB	Left Turn	398	393	98.8%	112.3	36.2	F
	Through	27	25	93.7%	53.4	12.5	D
	Right Turn	60	60	99.7%	17.4	7.2	B
	Subtotal	485	479	98.7%	97.4	30.7	F
Total		3,921	3,861	98.5%	77.9	4.8	E



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

Mace Ranch IC  
Existing with Project Mitigated  
PM Peak Hour

Intersection 6 Mace Blvd/Alhambra Dr Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	281	282	100.3%	52.7	8.3	D
	Through	617	609	98.7%	41.1	10.8	D
	Right Turn	91	94	102.9%	4.5	0.4	A
	Subtotal	989	985	99.6%	41.0	8.8	D
SB	Left Turn	41	39	95.4%	44.3	5.2	D
	Through	655	656	100.1%	40.0	12.9	D
	Right Turn	13	14	110.8%	4.8	1.9	A
	Subtotal	709	709	100.1%	39.5	12.0	D
EB	Left Turn	8	9	106.3%	42.7	9.1	D
	Through	12	14	113.3%	40.6	6.9	D
	Right Turn	60	63	104.3%	2.3	0.0	A
	Subtotal	80	85	105.9%	12.0	1.4	B
WB	Left Turn	461	453	98.3%	35.3	11.0	D
	Through	115	115	100.0%	26.9	3.5	C
	Right Turn	133	134	101.0%	20.7	4.7	C
	Subtotal	709	702	99.1%	31.1	7.0	C
Total		2,487	2,481	99.8%	36.8	4.9	D

Intersection 103 I-80 EB On-ramp/Chiles 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	433	436	100.6%	5.6	0.8	A
	Through						
	Right Turn	114	113	99.0%	2.8	0.4	A
	Subtotal	547	549	100.3%	5.0	0.7	A
EB	Left Turn						
	Through	441	439	99.6%	13.3	5.3	B
	Right Turn						
	Subtotal	441	439	99.6%	13.3	5.3	B
WB	Left Turn						
	Through	300	295	98.3%	11.5	0.6	B
	Right Turn						
	Subtotal	300	295	98.3%	11.5	0.6	B
Total		1,288	1,283	99.6%	9.3	2.0	A

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

Mace Ranch IC  
Existing with Project Mitigated  
PM Peak Hour

Intersection 205

Mace Blvd/Mace Ranch IC Driveway 1

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through	667	657	98.5%	33.5	4.5	C
	Right Turn	91	91	99.6%	28.3	4.9	C
	Subtotal	758	748	98.6%	32.9	4.5	C
SB	Left Turn	95	95	99.5%	54.7	10.9	D
	Through	289	294	101.6%	8.2	0.7	A
	Right Turn						
	Subtotal	384	388	101.1%	19.5	2.9	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	420	418	99.4%	34.0	3.0	C
	Through						
	Right Turn	313	307	98.0%	24.8	1.9	C
	Subtotal	733	724	98.8%	30.1	2.5	C
Total		1,875	1,860	99.2%	29.0	2.4	C

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

Mace Ranch IC  
Existing with Project Mitigated  
AM Peak Hour

Intersection 3 Mace Blvd/Chiles Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	31	28	90.0%	34.7	4.0	C
	Through	447	451	100.9%	22.0	1.0	C
	Right Turn	71	67	94.6%	4.5	0.8	A
	Subtotal	549	546	99.5%	20.5	1.1	C
SB	Left Turn	127	125	98.3%	28.5	2.0	C
	Through	161	160	99.3%	14.8	1.7	B
	Right Turn	164	165	100.6%	2.6	0.1	A
	Subtotal	452	450	99.5%	14.1	1.2	B
EB	Left Turn	609	607	99.7%	83.8	22.4	F
	Through	116	120	103.0%	15.2	1.6	B
	Right Turn	92	95	102.7%	2.7	0.1	A
	Subtotal	817	821	100.5%	64.5	16.7	E
WB	Left Turn	15	14	94.0%	33.1	4.6	C
	Through	75	78	103.7%	25.7	2.2	C
	Right Turn	273	273	100.0%	10.7	0.9	B
	Subtotal	363	365	100.5%	14.8	1.1	B
Total		2,181	2,182	100.0%	34.8	6.5	C

Intersection 104 Mace Blvd/I-80 EB Ramps Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through	902	908	100.6%	2.0	0.1	A
	Right Turn	430	426	99.1%	1.7	0.1	A
	Subtotal	1,332	1,334	100.1%	1.9	0.1	A
SB	Left Turn						
	Through	452	448	99.1%	1.4	0.1	A
	Right Turn	654	649	99.3%	3.4	0.3	A
	Subtotal	1,106	1,097	99.2%	2.6	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,438	2,431	99.7%	2.2	0.1	A

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

Mace Ranch IC  
Existing with Project Mitigated  
AM Peak Hour

Intersection 4 Mace Blvd/I-80 WB Ramps Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	370	371	100.4%	39.7	3.2	D
	Through	532	537	101.0%	11.2	0.8	B
	Right Turn						
	Subtotal	902	909	100.7%	22.9	1.4	C
SB	Left Turn						
	Through	875	873	99.7%	11.0	1.2	B
	Right Turn	206	210	102.0%	3.9	0.5	A
	Subtotal	1,081	1,083	100.2%	9.7	1.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	231	224	97.1%	58.2	14.0	E
	Through	1	1	50.0%	17.0	33.8	B
	Right Turn	1,040	1,043	100.3%	19.1	2.8	B
	Subtotal	1,272	1,268	99.6%	26.1	2.6	C
Total		3,255	3,259	100.1%	19.8	1.2	B

Intersection 5 Mace Blvd/2nd St-Co Rd 32A Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	555	558	100.5%	27.2	2.3	C
	Through	603	606	100.4%	12.2	2.3	B
	Right Turn	414	415	100.1%	12.5	3.3	B
	Subtotal	1,572	1,578	100.4%	17.6	2.1	B
SB	Left Turn	58	57	98.3%	45.5	3.9	D
	Through	725	738	101.7%	37.1	3.5	D
	Right Turn	32	33	103.4%	5.7	0.3	A
	Subtotal	815	828	101.5%	36.4	3.2	D
EB	Left Turn	36	37	103.1%	47.1	5.0	D
	Through	23	24	105.7%	44.0	6.2	D
	Right Turn	280	274	97.9%	4.1	0.3	A
	Subtotal	339	336	99.0%	11.7	1.6	B
WB	Left Turn	76	71	93.9%	40.6	3.8	D
	Through	67	67	99.7%	38.8	2.7	D
	Right Turn	15	17	114.7%	17.5	5.6	B
	Subtotal	158	155	98.4%	37.3	2.5	D
Total		2,884	2,896	100.4%	23.4	2.0	C

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

Mace Ranch IC  
Existing with Project Mitigated  
AM Peak Hour

Intersection 6 Mace Blvd/Alhambra Dr Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	21	17	82.9%	51.4	5.6	D
	Through	336	337	100.2%	32.6	1.9	C
	Right Turn	294	302	102.6%	8.1	0.6	A
	Subtotal	651	656	100.7%	21.8	1.2	C
SB	Left Turn	511	507	99.3%	35.9	5.0	D
	Through	405	409	101.0%	7.5	0.6	A
	Right Turn	9	10	115.6%	2.6	0.2	A
	Subtotal	925	927	100.2%	23.0	2.6	C
EB	Left Turn	20	19	96.0%	39.7	7.3	D
	Through	91	93	102.3%	39.9	2.4	D
	Right Turn	330	331	100.4%	3.2	0.1	A
	Subtotal	441	444	100.6%	12.5	1.0	B
WB	Left Turn	79	83	105.4%	39.4	4.2	D
	Through	14	14	101.4%	36.0	5.2	D
	Right Turn	45	44	98.4%	8.3	1.6	A
	Subtotal	138	142	102.8%	29.4	3.4	C
Total		2,155	2,168	100.6%	20.9	1.4	C

Intersection 103 I-80 EB On-ramp/Chiles 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	476	481	101.0%	11.6	6.9	B
	Through						
	Right Turn	99	101	101.9%	3.4	0.2	A
	Subtotal	575	582	101.2%	10.1	5.7	B
EB	Left Turn						
	Through	341	343	100.6%	22.6	17.7	C
	Right Turn						
	Subtotal	341	343	100.6%	22.6	17.7	C
WB	Left Turn						
	Through	270	272	100.6%	10.9	1.2	B
	Right Turn						
	Subtotal	270	272	100.6%	10.9	1.2	B
Total		1,186	1,196	100.9%	13.9	8.0	B

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

Mace Ranch IC  
Existing with Project Mitigated  
PM Peak Hour

Intersection 3 Mace Blvd/Chiles Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	25	24	94.0%	34.9	4.4	C
	Through	400	404	101.0%	22.0	1.0	C
	Right Turn	95	95	100.3%	4.2	0.6	A
	Subtotal	520	523	100.6%	19.3	0.7	B
SB	Left Turn	174	174	100.1%	32.3	3.5	C
	Through	376	381	101.2%	14.6	0.7	B
	Right Turn	210	214	101.9%	3.1	0.1	A
	Subtotal	760	769	101.1%	15.4	0.9	B
EB	Left Turn	509	510	100.1%	36.3	5.3	D
	Through	210	217	103.1%	19.1	1.6	B
	Right Turn	155	151	97.4%	2.9	0.1	A
	Subtotal	874	877	100.3%	26.3	3.1	C
WB	Left Turn	41	43	104.4%	28.2	3.1	C
	Through	65	70	107.7%	26.1	2.5	C
	Right Turn	202	204	100.7%	8.6	0.8	A
	Subtotal	308	316	102.7%	15.1	0.7	B
Total		2,462	2,485	100.9%	20.0	1.1	C

Intersection 104 Mace Blvd/I-80 EB Ramps Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through	761	765	100.6%	1.9	0.1	A
	Right Turn	353	355	100.5%	1.8	0.1	A
	Subtotal	1,114	1,120	100.5%	1.9	0.1	A
SB	Left Turn						
	Through	760	768	101.0%	1.7	0.1	A
	Right Turn	659	663	100.6%	4.3	0.1	A
	Subtotal	1,419	1,430	100.8%	2.9	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,533	2,551	100.7%	2.5	0.1	A

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

Mace Ranch IC  
Existing with Project Mitigated  
PM Peak Hour

Intersection 4 Mace Blvd/I-80 WB Ramps Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	248	248	99.9%	42.8	3.7	D
	Through	513	520	101.3%	14.2	0.7	B
	Right Turn						
	Subtotal	761	767	100.8%	23.4	1.8	C
SB	Left Turn						
	Through	1,011	1,028	101.7%	20.2	0.9	C
	Right Turn	466	469	100.7%	7.1	0.6	A
	Subtotal	1,477	1,497	101.4%	16.1	0.7	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	408	402	98.4%	44.2	7.4	D
	Through	1	1	110.0%	28.7	26.2	C
	Right Turn	800	804	100.5%	13.1	0.9	B
	Subtotal	1,209	1,206	99.8%	23.6	2.7	C
Total		3,447	3,471	100.7%	20.3	0.9	C

Intersection 5 Mace Blvd/2nd St-Co Rd 32A Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	468	478	102.1%	43.5	4.1	D
	Through	715	721	100.8%	28.7	4.3	C
	Right Turn	130	128	98.3%	12.2	2.1	B
	Subtotal	1,313	1,327	101.1%	32.5	3.4	C
SB	Left Turn	89	88	99.1%	53.2	4.2	D
	Through	513	524	102.2%	46.4	4.7	D
	Right Turn	74	73	98.9%	4.4	0.3	A
	Subtotal	676	686	101.4%	42.8	3.8	D
EB	Left Turn	135	137	101.5%	39.8	4.8	D
	Through	141	134	95.1%	42.5	3.4	D
	Right Turn	566	581	102.7%	21.0	6.3	C
	Subtotal	842	852	101.2%	27.5	4.4	C
WB	Left Turn	398	391	98.2%	57.1	7.5	E
	Through	27	28	103.3%	44.4	6.3	D
	Right Turn	60	57	95.2%	14.1	2.7	B
	Subtotal	485	476	98.1%	51.3	6.3	D
Total		3,316	3,341	100.7%	36.0	1.6	D

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

Mace Ranch IC  
Existing with Project Mitigated  
PM Peak Hour

Intersection 6 Mace Blvd/Alhambra Dr Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	281	279	99.1%	37.1	2.7	D
	Through	552	557	100.8%	26.7	2.7	C
	Right Turn	51	53	104.5%	4.2	0.4	A
	Subtotal	884	889	100.5%	28.6	2.6	C
SB	Left Turn	136	142	104.7%	38.0	5.5	D
	Through	235	237	100.8%	17.9	1.6	B
	Right Turn	13	15	112.3%	2.8	0.2	A
	Subtotal	384	394	102.6%	24.6	2.5	C
EB	Left Turn	8	7	88.8%	30.9	6.9	C
	Through	12	14	113.3%	27.6	6.5	C
	Right Turn	60	58	96.8%	2.2	0.1	A
	Subtotal	80	79	98.5%	9.3	2.4	A
WB	Left Turn	381	387	101.6%	22.0	1.7	C
	Through	115	117	101.3%	31.5	5.9	C
	Right Turn	223	226	101.3%	22.5	5.5	C
	Subtotal	719	730	101.5%	23.7	2.9	C
Total		2,067	2,091	101.1%	25.4	2.0	C











Intersection 103 I-80 EB On-ramp/Chiles 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	433	428	98.8%	6.3	0.3	A
	Through						
	Right Turn	114	116	101.8%	3.4	0.3	A
	Subtotal	547	544	99.5%	5.7	0.3	A
EB	Left Turn						
	Through	441	446	101.1%	9.7	1.0	A
	Right Turn						
	Subtotal	441	446	101.1%	9.7	1.0	A
WB	Left Turn						
	Through	300	308	102.5%	10.1	0.3	B
	Right Turn						
	Subtotal	300	308	102.5%	10.1	0.3	B
Total		1,288	1,297	100.7%	8.1	0.4	A



**J.5.B – EXISTING PLUS MIXED-USE ALTERNATIVE**













								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	60	30	390	110	110	640		
Number	3	18	2	12	1	6		
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	1863	1900	1863	1900	1863	1863		
Adj Flow Rate, veh/h	65	33	424	120	120	696		
Adj No. of Lanes	0	0	1	0	1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	0	0	2	2	2	2		
Cap, veh/h	83	42	689	195	155	1296		
Arrive On Green	0.07	0.07	0.49	0.49	0.09	0.70		
Sat Flow, veh/h	1120	569	1397	396	1774	1863		
Grp Volume(v), veh/h	99	0	0	544	120	696		
Grp Sat Flow(s),veh/h/ln	1706	0	0	1793	1774	1863		
Q Serve(g_s), s	2.0	0.0	0.0	7.7	2.3	6.3		
Cycle Q Clear(g_c), s	2.0	0.0	0.0	7.7	2.3	6.3		
Prop In Lane	0.66	0.33		0.22	1.00			
Lane Grp Cap(c), veh/h	127	0	0	884	155	1296		
V/C Ratio(X)	0.78	0.00	0.00	0.62	0.77	0.54		
Avail Cap(c_a), veh/h	1031	0	0	1342	562	2198		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	15.8	0.0	0.0	6.4	15.5	2.6		
Incr Delay (d2), s/veh	10.0	0.0	0.0	0.7	7.9	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	1.3	0.0	0.0	3.8	1.4	3.2		
LnGrp Delay(d),s/veh	25.8	0.0	0.0	7.1	23.4	2.9		
LnGrp LOS	C			A	C	A		
Approach Vol, veh/h	99		544			816		
Approach Delay, s/veh	25.8		7.1			5.9		
Approach LOS	C		A			A		
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.0	21.1				28.2		6.6
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	11.0	26.0				41.0		21.0
Max Q Clear Time (g_c+I1), s	4.3	9.7				8.3		4.0
Green Ext Time (p_c), s	0.1	7.4				10.0		0.2

**Intersection Summary**

HCM 2010 Ctrl Delay	7.7
HCM 2010 LOS	A

**Notes**

User approved volume balancing among the lanes for turning movement.

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	140	110	710	50	50	420		
Number	3	18	2	12	1	6		
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	1863	1900	1863	1900	1863	1863		
Adj Flow Rate, veh/h	152	120	772	54	54	457		
Adj No. of Lanes	0	0	1	0	1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	0	0	2	2	2	2		
Cap, veh/h	191	151	871	61	76	1176		
Arrive On Green	0.20	0.20	0.51	0.51	0.04	0.63		
Sat Flow, veh/h	938	741	1721	120	1774	1863		
Grp Volume(v), veh/h	273	0	0	826	54	457		
Grp Sat Flow(s),veh/h/ln	1685	0	0	1842	1774	1863		
Q Serve(g_s), s	7.5	0.0	0.0	19.5	1.5	5.8		
Cycle Q Clear(g_c), s	7.5	0.0	0.0	19.5	1.5	5.8		
Prop In Lane	0.56	0.44		0.07	1.00			
Lane Grp Cap(c), veh/h	343	0	0	932	76	1176		
V/C Ratio(X)	0.80	0.00	0.00	0.89	0.71	0.39		
Avail Cap(c_a), veh/h	731	0	0	988	403	1577		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	18.3	0.0	0.0	10.7	22.9	4.4		
Incr Delay (d2), s/veh	4.2	0.0	0.0	9.4	11.7	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	3.8	0.0	0.0	12.1	1.0	3.0		
LnGrp Delay(d),s/veh	22.6	0.0	0.0	20.1	34.6	4.6		
LnGrp LOS	C			C	C	A		
Approach Vol, veh/h	273		826			511		
Approach Delay, s/veh	22.6		20.1			7.7		
Approach LOS	C		C			A		
<b>Timer</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.1	28.5				34.6		13.9
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	11.0	26.0				41.0		21.0
Max Q Clear Time (g_c+I1), s	3.5	21.5				7.8		9.5
Green Ext Time (p_c), s	0.0	3.1				11.0		0.7
<b>Intersection Summary</b>								
HCM 2010 Ctrl Delay			16.6					
HCM 2010 LOS			B					
<b>Notes</b>								
User approved volume balancing among the lanes for turning movement.								

**J.5.C – CEQA CUMULATIVE PLUS PROJECT**



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

Mace Ranch IC  
Cumulative with Project Mitigated  
AM Peak Hour

Intersection 3 Mace Blvd/Chiles Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	37	37	99.7%	60.1	6.3	E
	Through	619	630	101.8%	37.7	2.0	D
	Right Turn	37	36	96.8%	3.3	0.7	A
	Subtotal	693	703	101.5%	37.1	2.1	D
SB	Left Turn	158	153	96.9%	53.4	6.3	D
	Through	399	409	102.5%	29.1	2.2	C
	Right Turn	223	229	102.9%	4.7	0.1	A
	Subtotal	780	791	101.5%	26.8	2.6	C
EB	Left Turn	620	623	100.5%	33.2	1.4	C
	Through	225	228	101.2%	24.8	2.6	C
	Right Turn	210	212	100.9%	3.0	0.1	A
	Subtotal	1,055	1,063	100.7%	25.4	1.2	C
WB	Left Turn	15	16	104.7%	55.8	14.6	E
	Through	90	92	102.0%	55.6	5.7	E
	Right Turn	383	380	99.3%	19.7	2.4	B
	Subtotal	488	488	100.0%	27.6	3.5	C
Total		3,016	3,045	101.0%	28.8	1.6	C

Intersection 104 Mace Blvd/I-80 EB Ramps Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through	997	1,008	101.1%	2.0	0.1	A
	Right Turn	628	627	99.8%	1.9	0.1	A
	Subtotal	1,625	1,635	100.6%	1.9	0.1	A
SB	Left Turn						
	Through	780	792	101.6%	2.7	0.1	A
	Right Turn	893	888	99.5%	4.6	0.3	A
	Subtotal	1,673	1,681	100.4%	3.7	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		3,298	3,315	100.5%	2.8	0.1	A

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

Mace Ranch IC  
Cumulative with Project Mitigated  
AM Peak Hour

Intersection 4 Mace Blvd/I-80 WB Ramps Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	376	377	100.2%	24.5	1.0	C
	Through	621	629	101.3%	26.3	0.6	C
	Right Turn						
	Subtotal	997	1,006	100.9%	25.6	0.5	C
SB	Left Turn						
	Through	1,295	1,302	100.5%	41.9	5.7	D
	Right Turn	125	127	101.7%	39.6	7.3	D
	Subtotal	1,420	1,429	100.6%	41.7	5.9	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	378	378	100.0%	49.4	2.7	D
	Through	1	1	60.0%	27.0	31.1	C
	Right Turn	1,846	1,818	98.5%	48.9	6.8	D
	Subtotal	2,225	2,197	98.7%	49.0	5.9	D
Total		4,642	4,632	99.8%	41.7	1.8	D

Intersection 5 Mace Blvd/2nd St-Co Rd 32A Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	562	555	98.7%	32.9	2.8	C
	Through	1,355	1,349	99.5%	14.1	0.8	B
	Right Turn	550	543	98.7%	14.4	1.2	B
	Subtotal	2,467	2,446	99.1%	18.4	1.2	B
SB	Left Turn	50	49	97.6%	47.2	5.0	D
	Through	1,049	1,059	100.9%	25.9	1.3	C
	Right Turn	471	480	102.0%	16.5	1.7	B
	Subtotal	1,570	1,588	101.1%	23.7	1.2	C
EB	Left Turn	117	126	107.4%	48.7	8.0	D
	Through	26	28	107.7%	35.6	5.7	D
	Right Turn	281	275	97.8%	10.0	1.9	A
	Subtotal	424	428	101.0%	23.1	3.4	C
WB	Left Turn	90	95	105.4%	33.7	3.8	C
	Through	63	66	105.1%	33.7	2.4	C
	Right Turn	20	21	102.5%	15.0	5.6	B
	Subtotal	173	182	105.0%	31.5	1.8	C
Total		4,634	4,644	100.2%	21.2	0.9	C

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

Mace Ranch IC  
Cumulative with Project Mitigated  
AM Peak Hour

Intersection 6 Mace Blvd/Alhambra Dr Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	36	36	100.0%	37.9	4.9	D
	Through	403	402	99.8%	25.5	1.9	C
	Right Turn	1,050	1,051	100.1%	18.2	1.0	B
	Subtotal	1,489	1,490	100.0%	20.6	1.2	C
SB	Left Turn	75	153	203.3%	46.0	11.2	D
	Through	670	681	101.6%	15.7	1.8	B
	Right Turn	13	14	104.6%	3.2	0.4	A
	Subtotal	758	847	111.8%	21.0	3.4	C
EB	Left Turn	15	14	94.0%	33.4	7.3	C
	Through	91	89	97.8%	24.3	1.1	C
	Right Turn	695	699	100.5%	3.8	0.5	A
	Subtotal	801	802	100.1%	6.6	0.6	A
WB	Left Turn	204	205	100.5%	37.7	2.8	D
	Through	35	34	96.6%	15.6	2.3	B
	Right Turn	15	16	107.3%	5.1	3.1	A
	Subtotal	254	255	100.4%	32.8	2.7	C
Total		3,302	3,393	102.8%	18.3	1.4	B

Intersection 103 I-80 EB On-ramp/Chiles 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	591	590	99.8%	5.7	0.3	A
	Through						
	Right Turn	111	113	101.4%	2.7	0.3	A
	Subtotal	702	702	100.0%	5.2	0.3	A
EB	Left Turn						
	Through	464	473	101.8%	18.6	2.5	B
	Right Turn						
	Subtotal	464	473	101.8%	18.6	2.5	B
WB	Left Turn						
	Through	350	359	102.6%	14.6	1.0	B
	Right Turn						
	Subtotal	350	359	102.6%	14.6	1.0	B
Total		1,516	1,534	101.2%	11.5	1.0	B

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

Mace Ranch IC  
Cumulative with Project Mitigated  
PM Peak Hour

Intersection 3 Mace Blvd/Chiles Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	33	32	96.1%	75.7	5.6	E
	Through	930	934	100.4%	58.5	8.5	E
	Right Turn	108	115	106.8%	11.0	4.0	B
	Subtotal	1,071	1,081	100.9%	54.0	7.8	D
SB	Left Turn	197	191	96.8%	66.4	11.4	E
	Through	627	633	101.0%	32.3	1.6	C
	Right Turn	202	203	100.2%	5.5	0.3	A
	Subtotal	1,026	1,026	100.0%	33.4	2.6	C
EB	Left Turn	721	722	100.1%	38.5	2.1	D
	Through	246	248	100.8%	31.5	2.9	C
	Right Turn	154	150	97.2%	3.1	0.2	A
	Subtotal	1,121	1,119	99.8%	32.2	1.7	C
WB	Left Turn	41	37	90.0%	50.3	6.5	D
	Through	65	64	97.7%	61.7	5.9	E
	Right Turn	447	446	99.7%	28.0	2.7	C
	Subtotal	553	546	98.7%	33.4	3.0	C
Total		3,771	3,772	100.0%	39.0	3.0	D

Intersection 104 Mace Blvd/I-80 EB Ramps Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through	1,218	1,209	99.3%	2.5	0.1	A
	Right Turn	883	892	101.0%	2.4	0.1	A
	Subtotal	2,101	2,101	100.0%	2.5	0.1	A
SB	Left Turn						
	Through	1,026	1,027	100.1%	3.4	0.3	A
	Right Turn	1,475	1,411	95.7%	5.7	0.2	A
	Subtotal	2,501	2,438	97.5%	4.7	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		4,602	4,539	98.6%	3.7	0.2	A



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

Mace Ranch IC  
Cumulative with Project Mitigated  
PM Peak Hour

Intersection 4 Mace Blvd/I-80 WB Ramps Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	515	510	99.1%	43.1	1.8	D
	Through	703	698	99.3%	17.7	0.6	B
	Right Turn						
	Subtotal	1,218	1,209	99.2%	28.4	1.1	C
SB	Left Turn						
	Through	2,058	1,981	96.3%	54.1	10.3	D
	Right Turn	225	220	97.6%	52.1	10.0	D
	Subtotal	2,283	2,201	96.4%	53.9	10.2	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	443	456	103.0%	65.9	9.9	E
	Through	1	1	110.0%	46.5	34.6	D
	Right Turn	1,079	1,073	99.5%	21.7	1.3	C
	Subtotal	1,523	1,531	100.5%	35.0	3.1	C
Total		5,024	4,940	98.3%	41.8	5.4	D

Intersection 5 Mace Blvd/2nd St-Co Rd 32A Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	548	542	98.9%	64.6	33.3	E
	Through	1,092	1,080	98.9%	31.2	7.7	C
	Right Turn	142	141	98.9%	18.0	4.6	B
	Subtotal	1,782	1,763	98.9%	40.7	12.1	D
SB	Left Turn	111	104	93.3%	84.9	11.2	F
	Through	1,224	1,160	94.8%	108.9	20.0	F
	Right Turn	198	192	97.1%	93.8	20.3	F
	Subtotal	1,533	1,456	95.0%	105.2	19.4	F
EB	Left Turn	463	466	100.6%	70.6	20.9	E
	Through	186	182	97.6%	47.1	8.6	D
	Right Turn	637	643	101.0%	42.1	12.6	D
	Subtotal	1,286	1,291	100.3%	53.1	11.6	D
WB	Left Turn	422	413	97.7%	62.2	8.8	E
	Through	36	37	103.9%	46.4	5.2	D
	Right Turn	56	57	101.4%	18.0	3.8	B
	Subtotal	514	507	98.6%	56.2	7.5	E
Total		5,115	5,016	98.1%	64.1	6.9	E

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

Mace Ranch IC  
Cumulative with Project Mitigated  
PM Peak Hour

Intersection 6 Mace Blvd/Alhambra Dr Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	484	468	96.7%	97.3	22.2	F
	Through	901	895	99.3%	35.3	5.1	D
	Right Turn	200	203	101.7%	12.1	1.4	B
	Subtotal	1,585	1,566	98.8%	50.9	10.0	D
SB	Left Turn	20	38	191.5%	65.0	5.9	E
	Through	404	409	101.2%	43.0	3.1	D
	Right Turn	14	15	105.0%	3.4	0.4	A
	Subtotal	438	462	105.4%	43.6	3.3	D
EB	Left Turn	10	8	78.0%	56.8	9.1	E
	Through	31	31	99.7%	51.8	6.8	D
	Right Turn	99	102	102.6%	1.7	1.0	A
	Subtotal	140	140	100.2%	15.7	2.3	B
WB	Left Turn	1,030	972	94.4%	85.1	16.3	F
	Through	155	146	94.0%	26.6	3.4	C
	Right Turn	70	68	97.0%	20.5	2.3	C
	Subtotal	1,255	1,186	94.5%	74.2	13.3	E
Total		3,418	3,354	98.1%	56.5	4.3	E

Intersection 103 I-80 EB On-ramp/Chiles 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	425	421	99.0%	7.2	0.9	A
	Through						
	Right Turn	209	216	103.1%	3.8	0.4	A
	Subtotal	634	636	100.4%	6.1	0.6	A
EB	Left Turn						
	Through	696	694	99.7%	29.8	4.2	C
	Right Turn						
	Subtotal	696	694	99.7%	29.8	4.2	C
WB	Left Turn						
	Through	300	298	99.3%	12.3	0.6	B
	Right Turn						
	Subtotal	300	298	99.3%	12.3	0.6	B
Total		1,630	1,628	99.9%	17.3	2.2	B

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

Mace Ranch IC  
Cumulative with Project Mitigated  
AM Peak Hour

Intersection 3 Mace Blvd/Chiles Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	37	35	94.3%	60.7	4.1	E
	Through	619	625	101.0%	39.2	2.0	D
	Right Turn	37	38	101.9%	3.2	0.5	A
	Subtotal	693	698	100.7%	38.3	2.2	D
SB	Left Turn	158	156	99.0%	51.2	4.1	D
	Through	399	394	98.8%	28.7	2.0	C
	Right Turn	223	222	99.6%	4.5	0.1	A
	Subtotal	780	773	99.1%	26.3	1.6	C
EB	Left Turn	620	623	100.5%	33.1	1.1	C
	Through	225	228	101.3%	24.7	2.4	C
	Right Turn	210	212	101.1%	2.9	0.1	A
	Subtotal	1,055	1,063	100.8%	25.2	0.5	C
WB	Left Turn	15	15	98.0%	54.3	11.2	D
	Through	90	85	94.8%	53.4	6.3	D
	Right Turn	383	387	101.1%	20.1	1.8	C
	Subtotal	488	487	99.9%	26.9	2.5	C
Total		3,016	3,021	100.2%	28.8	1.1	C

Intersection 104 Mace Blvd/I-80 EB Ramps Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	997	1,010	101.3%	2.0	0.1	A
	Right Turn	628	631	100.5%	1.8	0.1	A
	Subtotal	1,625	1,641	101.0%	1.9	0.1	A
SB	Left Turn						
	Through	780	775	99.4%	2.7	0.1	A
	Right Turn	893	892	99.9%	4.6	0.2	A
	Subtotal	1,673	1,667	99.6%	3.7	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		3,298	3,307	100.3%	2.8	0.1	A

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

Mace Ranch IC  
Cumulative with Project Mitigated  
AM Peak Hour

Intersection 4 Mace Blvd/I-80 WB Ramps Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	376	382	101.6%	24.6	0.8	C
	Through	621	626	100.8%	26.8	0.7	C
	Right Turn						
	Subtotal	997	1,008	101.1%	25.9	0.5	C
SB	Left Turn						
	Through	1,295	1,305	100.8%	40.0	6.8	D
	Right Turn	125	121	96.6%	37.2	6.9	D
	Subtotal	1,420	1,426	100.4%	39.8	6.8	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	378	362	95.8%	50.0	2.8	D
	Through	1	1	50.0%	34.1	40.1	C
	Right Turn	1,846	1,820	98.6%	52.0	6.3	D
	Subtotal	2,225	2,183	98.1%	51.7	5.6	D
Total		4,642	4,617	99.5%	42.4	2.7	D

Intersection 5 Mace Blvd/2nd St-Co Rd 32A Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	562	557	99.1%	33.5	3.8	C
	Through	1,355	1,342	99.0%	16.7	1.4	B
	Right Turn	550	548	99.5%	19.1	1.8	B
	Subtotal	2,467	2,446	99.1%	21.1	1.1	C
SB	Left Turn	50	49	97.6%	44.9	4.8	D
	Through	1,049	1,057	100.7%	26.9	1.9	C
	Right Turn	471	480	101.9%	18.4	1.9	B
	Subtotal	1,570	1,585	101.0%	24.9	1.8	C
EB	Left Turn	117	120	102.5%	48.5	7.3	D
	Through	26	29	110.0%	38.7	7.1	D
	Right Turn	281	278	98.9%	10.6	1.1	B
	Subtotal	424	426	100.5%	23.2	2.3	C
WB	Left Turn	90	91	101.2%	34.7	3.2	C
	Through	63	61	96.8%	33.8	2.1	C
	Right Turn	20	22	110.0%	14.8	2.6	B
	Subtotal	173	174	100.6%	31.8	1.5	C
Total		4,634	4,632	100.0%	23.0	1.0	C

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

Mace Ranch IC  
Cumulative with Project Mitigated  
AM Peak Hour

Intersection 6 Mace Blvd/Alhambra Dr Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	36	34	95.0%	36.9	5.0	D
	Through	843	843	100.0%	25.8	4.2	C
	Right Turn	610	608	99.7%	12.8	1.4	B
	Subtotal	1,489	1,485	99.7%	20.7	2.9	C
SB	Left Turn	45	43	96.2%	36.3	3.5	D
	Through	765	781	102.1%	15.7	1.8	B
	Right Turn	13	15	116.2%	3.5	0.4	A
	Subtotal	823	840	102.0%	16.5	1.7	B
EB	Left Turn	15	15	101.3%	28.8	3.7	C
	Through	91	88	96.5%	23.0	1.7	C
	Right Turn	695	698	100.5%	3.7	0.3	A
	Subtotal	801	801	100.0%	6.3	0.6	A
WB	Left Turn	109	107	98.2%	32.8	3.5	C
	Through	35	34	98.3%	15.8	3.5	B
	Right Turn	10	12	118.0%	7.5	4.1	A
	Subtotal	154	153	99.5%	26.9	2.4	C
Total		3,267	3,279	100.4%	16.4	1.6	B

Intersection 103 I-80 EB On-ramp/Chiles 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	591	603	102.1%	5.8	0.4	A
	Through						
	Right Turn	111	109	97.7%	2.8	0.3	A
	Subtotal	702	712	101.4%	5.3	0.4	A
EB	Left Turn						
	Through	464	461	99.4%	18.2	2.3	B
	Right Turn						
	Subtotal	464	461	99.4%	18.2	2.3	B
WB	Left Turn						
	Through	350	341	97.5%	14.8	0.8	B
	Right Turn						
	Subtotal	350	341	97.5%	14.8	0.8	B
Total		1,516	1,514	99.9%	11.4	0.8	B

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

Mace Ranch IC  
Cumulative with Project Mitigated  
AM Peak Hour

Intersection 205

Mace Blvd/Mace Ranch IC Driveway 1

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through	253	257	101.7%	8.4	0.8	A
	Right Turn	615	609	98.9%	13.0	0.9	B
	Subtotal	868	866	99.7%	11.6	0.7	B
SB	Left Turn	105	103	97.7%	22.0	1.2	C
	Through	728	744	102.2%	4.4	0.6	A
	Right Turn						
	Subtotal	833	846	101.6%	6.6	0.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	95	93	97.8%	21.4	2.2	C
	Through						
	Right Turn	25	28	110.8%	3.8	0.3	A
	Subtotal	120	121	100.5%	17.3	1.8	B
Total		1,821	1,833	100.6%	9.7	0.3	A

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

Mace Ranch IC  
Cumulative with Project Mitigated  
PM Peak Hour

Intersection 3 Mace Blvd/Chiles Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	33	32	97.0%	77.5	7.5	E
	Through	930	955	102.7%	63.1	9.2	E
	Right Turn	108	109	100.6%	15.1	6.6	B
	Subtotal	1,071	1,096	102.3%	58.8	9.0	E
SB	Left Turn	197	192	97.7%	70.5	13.5	E
	Through	627	618	98.5%	31.2	1.7	C
	Right Turn	202	203	100.4%	5.4	0.4	A
	Subtotal	1,026	1,013	98.7%	33.6	3.2	C
EB	Left Turn	721	720	99.9%	38.8	1.6	D
	Through	246	252	102.6%	34.1	2.3	C
	Right Turn	154	158	102.7%	3.1	0.2	A
	Subtotal	1,121	1,131	100.9%	32.8	1.3	C
WB	Left Turn	41	40	97.3%	49.3	5.0	D
	Through	65	64	98.2%	61.6	7.9	E
	Right Turn	447	440	98.3%	28.0	2.4	C
	Subtotal	553	543	98.2%	33.4	2.5	C
Total		3,771	3,783	100.3%	40.7	3.6	D

Intersection 104 Mace Blvd/I-80 EB Ramps Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through	1,218	1,218	100.0%	2.6	0.1	A
	Right Turn	883	898	101.7%	2.6	0.1	A
	Subtotal	2,101	2,116	100.7%	2.6	0.1	A
SB	Left Turn						
	Through	1,026	1,018	99.3%	3.2	0.3	A
	Right Turn	1,475	1,462	99.1%	5.6	0.4	A
	Subtotal	2,501	2,481	99.2%	4.6	0.4	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		4,602	4,597	99.9%	3.7	0.2	A

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

Mace Ranch IC  
Cumulative with Project Mitigated  
PM Peak Hour

Intersection 4 Mace Blvd/I-80 WB Ramps Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	515	503	97.7%	67.3	9.4	E
	Through	703	706	100.4%	17.6	0.8	B
	Right Turn						
	Subtotal	1,218	1,209	99.3%	38.3	4.5	D
SB	Left Turn						
	Through	2,058	2,052	99.7%	32.8	3.3	C
	Right Turn	225	236	104.8%	32.5	3.1	C
	Subtotal	2,283	2,288	100.2%	32.8	3.3	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	443	433	97.7%	71.3	9.5	E
	Through	1	2	170.0%	42.3	39.0	D
	Right Turn	1,079	1,056	97.8%	25.2	1.5	C
	Subtotal	1,523	1,490	97.9%	38.7	2.8	D
Total		5,024	4,987	99.3%	35.9	2.3	D

Intersection 5 Mace Blvd/2nd St-Co Rd 32A Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	548	538	98.1%	49.8	3.9	D
	Through	1,092	1,076	98.6%	26.3	3.1	C
	Right Turn	142	145	102.0%	17.7	2.8	B
	Subtotal	1,782	1,759	98.7%	32.7	2.7	C
SB	Left Turn	111	102	91.8%	74.7	11.0	E
	Through	1,224	1,234	100.8%	72.5	13.2	E
	Right Turn	198	197	99.2%	60.1	16.0	E
	Subtotal	1,533	1,533	100.0%	71.1	13.2	E
EB	Left Turn	463	462	99.8%	86.1	18.7	F
	Through	186	183	98.3%	60.7	8.3	E
	Right Turn	637	624	97.9%	39.3	9.6	D
	Subtotal	1,286	1,269	98.7%	59.4	7.7	E
WB	Left Turn	422	412	97.6%	104.2	32.1	F
	Through	36	37	103.1%	57.9	6.8	E
	Right Turn	56	58	103.2%	25.0	5.7	C
	Subtotal	514	507	98.6%	91.8	26.5	F
Total		5,115	5,067	99.1%	57.0	4.9	E



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

Mace Ranch IC  
Cumulative with Project Mitigated  
PM Peak Hour

Intersection 6 Mace Blvd/Alhambra Dr Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	484	466	96.3%	74.0	23.5	E
	Through	981	974	99.3%	19.1	3.9	B
	Right Turn	120	122	101.6%	6.2	1.3	A
	Subtotal	1,585	1,562	98.5%	34.5	9.3	C
SB	Left Turn	10	11	105.0%	56.7	12.8	E
	Through	919	923	100.4%	36.8	3.9	D
	Right Turn	14	12	87.9%	6.2	1.7	A
	Subtotal	943	945	100.2%	36.6	3.8	D
EB	Left Turn	10	9	89.0%	37.5	14.1	D
	Through	31	31	98.7%	43.8	6.2	D
	Right Turn	99	97	98.0%	1.3	0.1	A
	Subtotal	140	137	97.5%	13.2	2.7	B
WB	Left Turn	515	514	99.8%	54.3	9.3	D
	Through	155	150	96.8%	28.4	2.6	C
	Right Turn	40	40	99.8%	20.4	2.3	C
	Subtotal	710	704	99.2%	46.9	7.2	D
Total		3,378	3,348	99.1%	36.9	4.3	D

Intersection 103 I-80 EB On-ramp/Chiles 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	425	429	101.0%	7.3	0.7	A
	Through						
	Right Turn	209	216	103.4%	4.1	0.4	A
	Subtotal	634	646	101.8%	6.2	0.5	A
EB	Left Turn						
	Through	696	702	100.9%	31.2	5.1	C
	Right Turn						
	Subtotal	696	702	100.9%	31.2	5.1	C
WB	Left Turn						
	Through	300	299	99.5%	12.9	0.6	B
	Right Turn						
	Subtotal	300	299	99.5%	12.9	0.6	B
Total		1,630	1,646	101.0%	18.1	2.3	B

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

Mace Ranch IC  
Cumulative with Project Mitigated  
PM Peak Hour

Intersection 205

Mace Blvd/Mace Ranch IC Driveway 1

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through	917	904	98.5%	16.6	1.8	B
	Right Turn	114	118	103.1%	14.1	2.3	B
	Subtotal	1,031	1,021	99.0%	16.3	1.9	B
SB	Left Turn	30	28	93.0%	45.4	6.0	D
	Through	428	425	99.4%	13.1	0.9	B
	Right Turn						
	Subtotal	458	453	99.0%	15.1	1.1	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	515	520	101.0%	29.7	2.0	C
	Through						
	Right Turn	100	102	101.8%	14.0	2.4	B
	Subtotal	615	622	101.2%	27.1	1.9	C
Total		2,104	2,097	99.6%	19.3	1.5	B

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

Mace Ranch IC  
Cumulative with Project Mitigated  
AM Peak Hour

Intersection 3 Mace Blvd/Chiles Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	37	35	94.3%	60.1	6.2	E
	Through	619	612	98.8%	38.0	1.5	D
	Right Turn	37	41	109.5%	3.3	0.6	A
	Subtotal	693	687	99.1%	37.1	1.6	D
SB	Left Turn	158	153	96.6%	52.0	5.4	D
	Through	399	400	100.2%	28.1	1.7	C
	Right Turn	223	215	96.2%	3.6	0.1	A
	Subtotal	780	767	98.3%	26.0	1.7	C
EB	Left Turn	620	624	100.6%	33.8	0.9	C
	Through	225	232	103.1%	24.4	3.5	C
	Right Turn	210	206	98.1%	3.0	0.1	A
	Subtotal	1,055	1,062	100.7%	25.8	0.7	C
WB	Left Turn	15	15	97.3%	49.2	10.2	D
	Through	90	86	96.0%	59.6	9.6	E
	Right Turn	383	387	100.9%	21.9	3.3	C
	Subtotal	488	488	99.9%	29.5	4.9	C
Total		3,016	3,003	99.6%	29.0	1.2	C

Intersection 104 Mace Blvd/I-80 EB Ramps Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn						
	Through	997	1,001	100.4%	2.0	0.1	A
	Right Turn	628	625	99.5%	1.8	0.1	A
	Subtotal	1,625	1,626	100.0%	1.9	0.1	A
SB	Left Turn						
	Through	780	767	98.3%	2.0	0.1	A
	Right Turn	803	819	101.9%	3.4	0.2	A
	Subtotal	1,583	1,586	100.2%	2.7	0.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		3,208	3,212	100.1%	2.3	0.1	A

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

Mace Ranch IC  
Cumulative with Project Mitigated  
AM Peak Hour

Intersection 4 Mace Blvd/I-80 WB Ramps Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	376	366	97.4%	45.3	7.0	D
	Through	621	627	100.9%	17.7	0.8	B
	Right Turn						
	Subtotal	997	993	99.6%	27.9	2.9	C
SB	Left Turn						
	Through	1,205	1,221	101.3%	26.9	1.4	C
	Right Turn	125	132	105.4%	23.2	1.7	C
	Subtotal	1,330	1,353	101.7%	26.5	1.4	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	378	369	97.6%	48.5	3.8	D
	Through	1	1	70.0%	28.2	43.1	C
	Right Turn	1,346	1,341	99.6%	30.9	8.0	C
	Subtotal	1,725	1,711	99.2%	34.7	5.9	C
Total		4,052	4,056	100.1%	30.3	2.6	C

Intersection 5 Mace Blvd/2nd St-Co Rd 32A Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	562	555	98.7%	35.4	4.6	D
	Through	855	856	100.1%	15.8	1.0	B
	Right Turn	550	547	99.5%	19.2	1.3	B
	Subtotal	1,967	1,958	99.5%	22.3	2.0	C
SB	Left Turn	50	47	94.0%	42.3	5.0	D
	Through	959	969	101.1%	25.2	1.9	C
	Right Turn	471	459	97.5%	8.0	0.3	A
	Subtotal	1,480	1,476	99.7%	20.4	1.4	C
EB	Left Turn	117	116	99.0%	53.9	8.3	D
	Through	26	27	103.5%	35.0	5.4	C
	Right Turn	281	284	100.9%	3.0	0.1	A
	Subtotal	424	426	100.5%	18.9	3.0	B
WB	Left Turn	90	95	105.3%	32.5	4.4	C
	Through	63	61	97.3%	34.9	3.3	C
	Right Turn	20	21	105.0%	15.0	3.4	B
	Subtotal	173	177	102.4%	31.3	3.3	C
Total		4,044	4,036	99.8%	21.7	1.2	C

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

Mace Ranch IC  
Cumulative with Project Mitigated  
AM Peak Hour

Intersection 6 Mace Blvd/Alhambra Dr Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	36	39	108.1%	37.7	4.7	D
	Through	403	406	100.8%	23.3	2.2	C
	Right Turn	550	549	99.9%	24.2	3.1	C
	Subtotal	989	995	100.6%	24.3	2.4	C
SB	Left Turn	150	142	94.7%	37.1	4.1	D
	Through	670	661	98.7%	14.5	0.6	B
	Right Turn	13	14	104.6%	3.0	0.3	A
	Subtotal	833	817	98.1%	18.3	0.9	B
EB	Left Turn	15	14	94.0%	38.2	7.6	D
	Through	91	97	106.5%	29.4	2.0	C
	Right Turn	695	704	101.3%	4.5	0.7	A
	Subtotal	801	815	101.7%	8.0	1.0	A
WB	Left Turn	114	111	97.6%	30.2	2.6	C
	Through	35	34	96.6%	18.9	4.4	B
	Right Turn	15	16	109.3%	5.8	2.1	A
	Subtotal	164	162	98.5%	25.3	1.8	C
Total		2,787	2,788	100.0%	17.8	1.2	B

Intersection 103 I-80 EB On-ramp/Chiles 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	591	598	101.2%	5.9	0.4	A
	Through						
	Right Turn	111	113	101.5%	3.1	0.3	A
	Subtotal	702	711	101.3%	5.4	0.3	A
EB	Left Turn						
	Through	464	466	100.4%	18.5	1.6	B
	Right Turn						
	Subtotal	464	466	100.4%	18.5	1.6	B
WB	Left Turn						
	Through	350	335	95.7%	14.5	0.8	B
	Right Turn						
	Subtotal	350	335	95.7%	14.5	0.8	B
Total		1,516	1,512	99.7%	11.5	0.6	B

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

Mace Ranch IC  
Cumulative with Project Mitigated  
PM Peak Hour

Intersection 3 Mace Blvd/Chiles Rd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	33	31	94.5%	56.3	8.4	E
	Through	930	926	99.6%	54.0	8.5	D
	Right Turn	108	113	104.5%	9.7	5.0	A
	Subtotal	1,071	1,070	99.9%	49.4	8.2	D
SB	Left Turn	197	193	97.8%	64.2	15.3	E
	Through	627	605	96.5%	23.9	0.8	C
	Right Turn	202	196	97.2%	4.5	0.3	A
	Subtotal	1,026	994	96.9%	28.0	3.5	C
EB	Left Turn	721	734	101.8%	35.8	2.7	D
	Through	246	246	99.9%	25.6	2.2	C
	Right Turn	154	149	96.6%	3.1	0.1	A
	Subtotal	1,121	1,128	100.7%	29.2	1.8	C
WB	Left Turn	41	43	104.4%	48.4	8.0	D
	Through	65	67	102.5%	79.0	14.9	E
	Right Turn	447	450	100.6%	30.8	5.0	C
	Subtotal	553	559	101.1%	37.9	6.2	D
Total		3,771	3,752	99.5%	36.0	3.7	D

Intersection 104 Mace Blvd/I-80 EB Ramps Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	1,218	1,219	100.1%	2.5	0.1	A
	Right Turn	883	897	101.6%	2.4	0.1	A
	Subtotal	2,101	2,117	100.7%	2.4	0.1	A
SB	Left Turn						
	Through	1,026	997	97.2%	2.7	0.2	A
	Right Turn	975	964	98.9%	4.6	0.1	A
	Subtotal	2,001	1,962	98.0%	3.6	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		4,102	4,078	99.4%	3.0	0.1	A

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

Mace Ranch IC  
Cumulative with Project Mitigated  
PM Peak Hour

Intersection 4 Mace Blvd/I-80 WB Ramps Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	515	511	99.3%	69.6	11.0	E
	Through	703	706	100.4%	23.3	1.3	C
	Right Turn						
	Subtotal	1,218	1,217	99.9%	42.9	5.5	D
SB	Left Turn						
	Through	1,558	1,532	98.3%	49.5	3.9	D
	Right Turn	225	233	103.7%	45.6	4.5	D
	Subtotal	1,783	1,765	99.0%	49.0	4.0	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	443	430	97.1%	104.7	31.2	F
	Through	1	1	90.0%	66.4	58.6	E
	Right Turn	974	956	98.2%	15.3	3.8	B
	Subtotal	1,418	1,387	97.8%	43.1	12.2	D
Total		4,419	4,369	98.9%	45.4	5.4	D

Intersection 5 Mace Blvd/2nd St-Co Rd 32A Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	548	551	100.6%	60.6	7.6	E
	Through	987	965	97.8%	84.8	23.1	F
	Right Turn	142	136	95.6%	85.7	24.2	F
	Subtotal	1,677	1,652	98.5%	76.9	16.8	E
SB	Left Turn	111	112	101.3%	99.1	14.3	F
	Through	724	728	100.5%	83.9	23.7	F
	Right Turn	198	199	100.7%	5.7	0.5	A
	Subtotal	1,033	1,039	100.6%	70.7	16.9	E
EB	Left Turn	463	466	100.5%	56.4	16.1	E
	Through	186	183	98.4%	41.4	4.7	D
	Right Turn	637	622	97.6%	8.1	0.8	A
	Subtotal	1,286	1,271	98.8%	30.7	7.0	C
WB	Left Turn	422	421	99.8%	44.9	2.9	D
	Through	36	35	95.8%	54.2	5.1	D
	Right Turn	56	54	96.1%	24.1	3.2	C
	Subtotal	514	509	99.1%	43.3	2.6	D
Total		4,510	4,471	99.1%	58.6	6.1	E

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

Mace Ranch IC  
Cumulative with Project Mitigated  
PM Peak Hour

Intersection 6 Mace Blvd/Alhambra Dr Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		LOS
			Average	Percent	Average	Std. Dev.	
NB	Left Turn	484	466	96.3%	40.8	3.4	D
	Through	901	892	99.0%	19.7	2.0	B
	Right Turn	95	93	97.7%	17.9	2.9	B
	Subtotal	1,480	1,451	98.1%	26.3	2.3	C
SB	Left Turn	40	38	93.8%	53.2	6.3	D
	Through	404	407	100.8%	31.7	2.0	C
	Right Turn	14	14	100.0%	3.2	0.3	A
	Subtotal	458	459	100.2%	32.6	1.7	C
EB	Left Turn	10	11	114.0%	44.7	10.5	D
	Through	31	29	94.5%	45.1	5.3	D
	Right Turn	99	98	99.2%	1.4	0.6	A
	Subtotal	140	139	99.2%	14.2	2.1	B
WB	Left Turn	530	532	100.4%	50.0	12.7	D
	Through	155	161	103.5%	29.4	2.5	C
	Right Turn	70	70	100.3%	19.7	1.3	B
	Subtotal	755	763	101.0%	42.8	8.8	D
Total		2,833	2,812	99.3%	31.3	2.7	C

Intersection 103 I-80 EB On-ramp/Chiles 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	425	424	99.7%	7.0	1.0	A
	Through						
	Right Turn	209	208	99.6%	3.8	0.4	A
	Subtotal	634	632	99.7%	6.0	0.7	A
EB	Left Turn						
	Through	696	701	100.7%	28.7	5.5	C
	Right Turn						
	Subtotal	696	701	100.7%	28.7	5.5	C
WB	Left Turn						
	Through	300	293	97.8%	12.3	0.6	B
	Right Turn						
	Subtotal	300	293	97.8%	12.3	0.6	B
Total		1,630	1,626	99.7%	16.9	2.6	B



**J.5.D – CEQA CUMULATIVE PLUS MIXED-USE ALTERNATIVE**



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

Mace Ranch IC  
CEQA C+P Mixed-Use - Mitigation 1  
AM Peak Hour

Intersection 3

Mace Blvd/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	30	25	84.5%	48.2	15.8	D
	Through	710	724	101.9%	41.0	11.8	D
	Right Turn	60	70	116.5%	34.7	22.5	C
	Second Right						
	Subtotal	800	819	102.4%	40.8	12.3	D
SB	U Turn						
	Second Left						
	Left Turn	150	142	95.0%	44.2	10.7	D
	Through	450	421	93.5%	17.2	2.7	B
	Right Turn	300	286	95.2%	2.9	0.3	A
	Second Right						
	Subtotal	900	849	94.3%	17.0	2.9	B
EB	U Turn						
	Second Left						
	Left Turn	540	549	101.7%	44.8	16.2	D
	Through	220	209	94.8%	21.4	3.1	C
	Right Turn	210	212	100.9%	2.9	0.3	A
	Second Right						
	Subtotal	970	970	100.0%	30.7	10.6	C
WB	U Turn						
	Second Left						
	Left Turn	20	22	109.4%	41.6	12.6	D
	Through	80	76	94.6%	39.2	4.9	D
	Right Turn	320	310	96.8%	24.7	4.4	C
	Second Right						
	Subtotal	420	407	97.0%	28.4	3.5	C
Total		3,090	3,045	98.5%	29.5	5.5	C

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

Mace Ranch IC  
CEQA C+P Mixed-Use - Mitigation 1  
AM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	340	344	101.1%	42.8	4.1	D
	Through	580	571	98.4%	29.5	2.4	C
	Right Turn						
	Second Right						
	Subtotal	920	915	99.4%	34.6	1.3	C
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,250	1,114	89.1%	19.0	2.5	B
	Right Turn	190	180	94.8%	17.1	5.4	B
	Second Right						
	Subtotal	1,440	1,294	89.9%	18.7	2.8	B
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn	450	440	97.7%	38.2	4.0	D
	Through	10	15	153.6%	41.4	13.2	D
	Right Turn	1,610	1,596	99.1%	24.8	5.4	C
	Second Right						
	Subtotal	2,070	2,051	99.1%	27.8	4.7	C
Total		4,430	4,260	96.2%	26.5	2.8	C

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

Mace Ranch IC  
CEQA C+P Mixed-Use - Mitigation 1  
AM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	750	728	97.1%	43.5	4.2	D
	Through	1,260	1,253	99.4%	24.9	4.5	C
	Right Turn	180	179	99.2%	27.6	5.9	C
	Second Right						
	Subtotal	2,190	2,160	98.6%	31.4	3.6	C
SB	U Turn Second Left	10	8	76.8%	43.3	29.6	D
	Left Turn	50	45	89.1%	55.5	10.4	E
	Through	1,120	992	88.6%	77.8	8.4	E
	Right Turn	500	461	92.2%	8.6	2.5	A
	Second Right						
	Subtotal	1,680	1,506	89.6%	55.7	5.6	E
EB	U Turn Second Left	10	8	76.8%	33.6	27.0	C
	Left Turn	130	131	100.7%	50.0	9.0	D
	Through	140	140	99.8%	37.2	6.6	D
	Right Turn	270	263	97.4%	16.3	1.8	B
	Second Right						
	Subtotal	550	541	98.4%	30.4	3.9	C
WB	U Turn Second Left						
	Left Turn	50	48	96.8%	47.7	10.8	D
	Through	60	64	106.9%	46.9	11.1	D
	Right Turn	30	35	116.5%	29.8	12.8	C
	Second Right						
	Subtotal	140	147	105.3%	42.8	9.0	D
Total		4,560	4,355	95.5%	40.0	2.7	D

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

Mace Ranch IC  
CEQA C+P Mixed-Use - Mitigation 1  
AM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	210	221	105.3%	42.4	3.4	D
	Through	830	812	97.8%	16.0	4.3	B
	Right Turn	390	382	98.1%	6.3	1.8	A
	Second Right						
	Subtotal	1,430	1,415	99.0%	17.6	2.8	B
SB	U Turn						
	Second Left						
	Left Turn	30	28	92.2%	51.1	12.1	D
	Through	740	697	94.2%	53.2	19.6	D
	Right Turn	10	11	107.5%	11.8	12.1	B
	Second Right						
	Subtotal	780	736	94.3%	52.6	18.6	D
EB	U Turn						
	Second Left						
	Left Turn	20	20	99.8%	36.9	10.9	D
	Through	100	92	91.8%	38.4	6.5	D
	Right Turn	800	750	93.7%	22.4	15.8	C
	Second Right						
	Subtotal	920	862	93.7%	24.4	13.8	C
WB	U Turn						
	Second Left						
	Left Turn	140	134	96.0%	45.1	15.6	D
	Through	90	90	100.3%	46.5	16.1	D
	Right Turn	20	20	97.9%	5.7	3.0	A
	Second Right						
	Subtotal	250	244	97.7%	42.3	13.0	D
Total		3,380	3,257	96.4%	29.3	9.3	C

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

Mace Ranch IC  
CEQA C+P Mixed-Use - Mitigation 1  
AM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	450	453	100.7%	6.2	2.4	A
	Through						
	Right Turn	150	148	98.8%	3.8	0.9	A
	Second Right						
	Subtotal	600	601	100.2%	5.7	2.0	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	520	532	102.4%	19.0	8.5	B
	Right Turn						
	Second Right						
	Subtotal	520	532	102.4%	19.0	8.5	B
WB	U Turn						
	Second Left						
	Left Turn						
	Through	410	388	94.7%	10.7	1.0	B
	Right Turn						
	Second Right						
	Subtotal	410	388	94.7%	10.7	1.0	B
Total		1,530	1,522	99.5%	11.7	4.1	B

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

Mace Ranch IC  
CEQA C+P Mixed-Use - Mitigation 1  
AM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	920	925	100.6%	2.3	0.2	A
	Right Turn	650	659	101.3%	2.5	0.3	A
	Second Right						
	Subtotal	1,570	1,584	100.9%	2.3	0.1	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	900	851	94.6%	2.0	0.1	A
	Right Turn	800	697	87.1%	3.9	0.3	A
	Second Right						
	Subtotal	1,700	1,548	91.1%	2.9	0.2	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		3,270	3,132	95.8%	2.6	0.1	A

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

Mace Ranch IC  
CEQA C+P Mixed Use - Mitigation 1  
PM Peak Hour

Intersection 3

Mace Blvd/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	30	26	88.3%	79.0	30.6	E
	Through	860	830	96.5%	74.7	16.3	E
	Right Turn	80	74	92.2%	83.7	26.9	F
	Second Right						
	Subtotal	970	930	95.9%	75.7	16.9	E
SB	U Turn Second Left						
	Left Turn	220	186	84.7%	92.5	45.2	F
	Through	700	588	84.0%	26.5	4.6	C
	Right Turn	260	245	94.2%	5.8	2.9	A
	Second Right						
	Subtotal	1,180	1,020	86.4%	34.0	11.9	C
EB	U Turn Second Left						
	Left Turn	720	651	90.5%	91.3	10.5	F
	Through	260	230	88.5%	31.3	4.0	C
	Right Turn	140	126	89.7%	2.8	0.3	A
	Second Right						
	Subtotal	1,120	1,007	89.9%	66.6	8.0	E
WB	U Turn Second Left						
	Left Turn	50	45	89.1%	79.5	24.3	E
	Through	50	48	95.2%	79.2	35.2	E
	Right Turn	410	373	90.9%	80.1	37.7	F
	Second Right						
	Subtotal	510	465	91.2%	80.3	35.9	F
Total		3,780	3,421	90.5%	61.3	6.0	E



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

Mace Ranch IC  
CEQA C+P Mixed Use - Mitigation 1  
PM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	450	433	96.3%	44.8	4.2	D
	Through	710	652	91.8%	20.2	1.7	C
	Right Turn						
	Second Right						
	Subtotal	1,160	1,085	93.6%	30.0	2.1	C
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,860	1,614	86.8%	23.4	3.6	C
	Right Turn	210	184	87.8%	20.0	4.6	C
	Second Right						
	Subtotal	2,070	1,798	86.9%	23.0	3.7	C
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn	490	475	96.9%	75.4	29.3	E
	Through	10	13	134.4%	86.0	31.0	F
	Right Turn	1,050	1,042	99.3%	16.9	1.6	B
	Second Right						
	Subtotal	1,550	1,530	98.7%	35.9	10.5	D
Total		4,780	4,413	92.3%	29.2	3.9	C

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

Mace Ranch IC  
CEQA C+P Mixed Use - Mitigation 1  
PM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	540	530	98.1%	63.0	9.3	E
	Through	1,100	1,023	93.0%	40.6	11.9	D
	Right Turn	120	119	98.9%	34.2	11.5	C
	Second Right						
	Subtotal	1,760	1,671	95.0%	47.2	8.9	D
SB	U Turn Second Left	10	8	80.6%	59.4	42.5	E
	Left Turn	80	72	90.2%	71.5	7.1	E
	Through	1,170	959	82.0%	85.9	6.2	F
	Right Turn	190	163	85.9%	2.4	0.5	A
	Second Right						
	Subtotal	1,450	1,203	82.9%	73.6	4.8	E
EB	U Turn Second Left	40	35	88.3%	79.7	48.9	E
	Left Turn	370	327	88.3%	69.7	32.3	E
	Through	180	177	98.6%	45.2	13.3	D
	Right Turn	640	576	90.0%	118.4	33.3	F
	Second Right						
	Subtotal	1,230	1,116	90.7%	91.2	21.3	F
WB	U Turn Second Left						
	Left Turn	260	259	99.7%	52.6	7.3	D
	Through	40	44	110.4%	36.9	11.8	D
	Right Turn	50	47	94.5%	21.7	7.8	C
	Second Right						
	Subtotal	350	351	100.2%	46.7	5.4	D
Total		4,790	4,340	90.6%	65.4	4.3	E

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

Mace Ranch IC  
CEQA C+P Mixed Use - Mitigation 1  
PM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	470	399	84.9%	98.5	22.6	F
	Through	940	854	90.9%	18.2	3.5	B
	Right Turn	120	119	99.2%	4.4	1.2	A
	Second Right						
	Subtotal	1,530	1,372	89.7%	40.4	7.5	D
SB	U Turn						
	Second Left						
	Left Turn	40	41	103.7%	59.7	17.0	E
	Through	730	664	91.0%	62.9	39.2	E
	Right Turn	20	17	86.4%	19.3	21.0	B
	Second Right						
	Subtotal	790	723	91.5%	61.6	37.3	E
EB	U Turn						
	Second Left						
	Left Turn	10	7	73.0%	65.6	27.2	E
	Through	40	41	102.7%	47.0	8.6	D
	Right Turn	270	278	102.8%	3.3	0.8	A
	Second Right						
	Subtotal	320	326	101.9%	10.1	1.8	B
WB	U Turn						
	Second Left						
	Left Turn	450	351	78.1%	106.9	44.9	F
	Through	70	54	76.8%	99.1	44.3	F
	Right Turn	30	35	115.2%	10.1	5.3	B
	Second Right						
	Subtotal	550	440	79.9%	98.8	42.4	F
Total		3,190	2,861	89.7%	50.4	8.8	D

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

Mace Ranch IC  
CEQA C+P Mixed Use - Mitigation 1  
PM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	390	389	99.7%	22.5	10.9	C
	Through						
	Right Turn	180	173	96.2%	4.7	1.2	A
	Second Right						
	Subtotal	570	562	98.6%	17.1	7.5	B
EB	U Turn						
	Second Left						
	Left Turn						
	Through	730	630	86.3%	91.7	45.4	F
	Right Turn						
	Second Right						
	Subtotal	730	630	86.3%	91.7	45.4	F
WB	U Turn						
	Second Left						
	Left Turn						
	Through	340	317	93.3%	11.2	2.1	B
	Right Turn						
	Second Right						
	Subtotal	340	317	93.3%	11.2	2.1	B
Total		1,640	1,509	92.0%	47.1	21.1	D

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

Mace Ranch IC  
CEQA C+P Mixed Use - Mitigation 1  
PM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	1,160	1,087	93.7%	2.4	0.3	A
	Right Turn	830	771	92.9%	2.7	0.2	A
	Second Right						
	Subtotal	1,990	1,859	93.4%	2.5	0.2	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,180	1,052	89.1%	4.6	2.8	A
	Right Turn	1,170	1,028	87.9%	6.4	0.5	A
	Second Right						
	Subtotal	2,350	2,080	88.5%	5.5	1.5	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		4,340	3,939	90.8%	4.1	0.8	A

**J.5.E – MODIFIED CUMULATIVE PLUS PROJECT**



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

Mace Ranch IC  
Modified C+P - Mitigation 1  
AM Peak Hour

Intersection 3

Mace Blvd/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	30	31	105.0%	45.3	8.1	D
	Through	680	718	105.6%	31.5	4.0	C
	Right Turn	50	43	85.2%	18.9	9.4	B
	Second Right						
	Subtotal	760	792	104.2%	31.4	3.6	C
SB	U Turn						
	Second Left						
	Left Turn	160	157	97.9%	38.6	6.6	D
	Through	290	285	98.3%	16.9	3.3	B
	Right Turn	280	279	99.6%	2.8	0.2	A
	Second Right						
	Subtotal	730	720	98.7%	16.1	2.1	B
EB	U Turn						
	Second Left						
	Left Turn	570	572	100.4%	40.6	4.3	D
	Through	220	222	101.1%	23.7	4.3	C
	Right Turn	190	201	105.7%	2.6	0.3	A
	Second Right						
	Subtotal	980	995	101.6%	29.1	3.0	C
WB	U Turn						
	Second Left						
	Left Turn	20	24	119.0%	47.6	11.3	D
	Through	70	69	98.2%	38.1	6.6	D
	Right Turn	320	316	98.6%	22.7	4.3	C
	Second Right						
	Subtotal	410	408	99.6%	26.8	3.9	C
Total		2,880	2,916	101.3%	26.2	2.2	C

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

Mace Ranch IC  
Modified C+P - Mitigation 1  
AM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	320	309	96.5%	33.1	2.6	C
	Through	710	719	101.3%	23.7	2.1	C
	Right Turn						
	Second Right						
	Subtotal	1,030	1,028	99.8%	26.6	1.3	C
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,070	1,052	98.3%	14.9	1.3	B
	Right Turn	160	154	96.5%	12.9	1.9	B
	Second Right						
	Subtotal	1,230	1,206	98.1%	14.7	1.3	B
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn	410	413	100.8%	34.5	3.7	C
	Through	10	11	111.4%	37.9	20.9	D
	Right Turn	1,400	1,419	101.3%	19.2	4.1	B
	Second Right						
	Subtotal	1,820	1,843	101.3%	22.8	3.3	C
Total		4,080	4,077	99.9%	21.3	1.4	C



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

Mace Ranch IC  
Modified C+P - Mitigation 1  
AM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	730	754	103.3%	33.1	4.3	C
	Through	1,060	1,036	97.8%	21.2	3.2	C
	Right Turn	320	314	98.3%	21.1	4.6	C
	Second Right						
	Subtotal	2,110	2,105	99.7%	25.5	3.7	C
SB	U Turn Second Left	10	10	96.0%	46.0	27.1	D
	Left Turn	80	76	94.6%	44.4	7.2	D
	Through	800	776	97.0%	33.6	7.6	C
	Right Turn	230	235	102.3%	3.7	0.9	A
	Second Right						
	Subtotal	1,120	1,096	97.9%	28.3	5.8	C
EB	U Turn Second Left	10	9	92.2%	37.0	10.2	D
	Left Turn	70	73	103.7%	42.0	6.6	D
	Through	30	30	99.8%	45.4	12.0	D
	Right Turn	360	362	100.6%	5.9	1.4	A
	Second Right						
	Subtotal	470	474	100.8%	14.6	2.1	B
WB	U Turn Second Left						
	Left Turn	70	67	96.0%	42.0	6.6	D
	Through	70	74	106.4%	39.2	10.1	D
	Right Turn	20	17	86.4%	21.8	7.9	C
	Second Right						
	Subtotal	160	159	99.4%	38.6	5.6	D
Total		3,860	3,834	99.3%	25.5	3.3	C

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

Mace Ranch IC  
Modified C+P - Mitigation 1  
AM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	150	143	95.5%	48.3	9.0	D
	Through	440	436	99.1%	47.0	15.9	D
	Right Turn	570	556	97.5%	30.0	8.2	C
	Second Right						
	Subtotal	1,160	1,135	97.9%	39.1	9.6	D
SB	U Turn						
	Second Left						
	Left Turn	510	501	98.3%	55.1	6.9	E
	Through	540	539	99.8%	28.8	2.9	C
	Right Turn	20	20	101.8%	4.5	0.9	A
	Second Right						
	Subtotal	1,070	1,061	99.1%	40.9	4.5	D
EB	U Turn						
	Second Left						
	Left Turn	30	30	101.1%	49.8	17.6	D
	Through	320	331	103.6%	47.5	16.1	D
	Right Turn	460	445	96.8%	3.6	0.5	A
	Second Right						
	Subtotal	810	807	99.6%	23.6	8.6	C
WB	U Turn						
	Second Left						
	Left Turn	120	116	96.3%	42.0	6.4	D
	Through	40	36	89.3%	41.5	13.7	D
	Right Turn	60	65	108.8%	9.5	3.0	A
	Second Right						
	Subtotal	220	217	98.4%	32.2	3.2	C
Total		3,260	3,219	98.7%	35.4	4.3	D

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

Mace Ranch IC  
Modified C+P - Mitigation 1  
AM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	540	562	104.1%	5.3	0.8	A
	Through						
	Right Turn	160	148	92.6%	3.3	0.3	A
	Second Right						
	Subtotal	700	710	101.5%	4.9	0.6	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	440	433	98.4%	15.8	1.6	B
	Right Turn						
	Second Right						
	Subtotal	440	433	98.4%	15.8	1.6	B
WB	U Turn						
	Second Left						
	Left Turn						
	Through	380	378	99.5%	12.4	1.8	B
	Right Turn						
	Second Right						
	Subtotal	380	378	99.5%	12.4	1.8	B
Total		1,520	1,521	100.1%	9.9	0.6	A

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

Mace Ranch IC  
Modified C+P - Mitigation 1  
AM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	1,030	1,047	101.6%	2.4	0.1	A
	Right Turn	540	551	102.0%	2.1	0.2	A
	Second Right						
	Subtotal	1,570	1,598	101.8%	2.3	0.1	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	730	731	100.1%	1.9	0.2	A
	Right Turn	750	733	97.7%	4.1	0.4	A
	Second Right						
	Subtotal	1,480	1,463	98.9%	3.0	0.3	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		3,050	3,061	100.4%	2.6	0.2	A

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

Mace Ranch IC  
Modified C+P - Mitigation 1  
PM Peak Hour

Intersection 3

Mace Blvd/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	20	19	94.1%	55.1	12.8	E
	Through	750	739	98.5%	34.9	4.6	C
	Right Turn	90	91	101.1%	22.5	7.2	C
	Second Right						
	Subtotal	860	849	98.7%	34.0	4.7	C
SB	U Turn						
	Second Left						
	Left Turn	230	218	94.7%	68.6	22.6	E
	Through	660	618	93.6%	20.0	1.9	C
	Right Turn	260	246	94.5%	4.2	0.6	A
	Second Right						
	Subtotal	1,150	1,081	94.0%	26.5	5.8	C
EB	U Turn						
	Second Left						
	Left Turn	630	598	94.9%	74.4	18.1	E
	Through	260	246	94.7%	30.4	4.8	C
	Right Turn	180	167	92.8%	2.9	0.3	A
	Second Right						
	Subtotal	1,070	1,011	94.5%	52.2	11.4	D
WB	U Turn						
	Second Left						
	Left Turn	50	48	96.0%	47.1	9.8	D
	Through	50	49	98.3%	39.9	9.2	D
	Right Turn	330	341	103.4%	31.0	11.1	C
	Second Right						
	Subtotal	430	439	102.0%	33.9	9.0	C
Total		3,510	3,380	96.3%	37.1	4.1	D

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

Mace Ranch IC  
Modified C+P - Mitigation 1  
PM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	530	539	101.7%	46.6	7.1	D
	Through	620	588	94.8%	15.6	3.9	B
	Right Turn						
	Second Right						
	Subtotal	1,150	1,127	98.0%	30.6	3.8	C
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,720	1,515	88.1%	49.0	13.2	D
	Right Turn	270	247	91.3%	48.9	14.9	D
	Second Right						
	Subtotal	1,990	1,762	88.5%	49.0	13.4	D
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn	490	487	99.4%	48.3	10.5	D
	Through	10	13	130.6%	62.7	21.8	E
	Right Turn	920	953	103.6%	12.6	1.4	B
	Second Right						
	Subtotal	1,420	1,454	102.4%	25.0	4.3	C
Total		4,560	4,342	95.2%	36.3	5.7	D

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

Mace Ranch IC  
Modified C+P - Mitigation 1  
PM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	560	554	99.0%	59.0	14.9	E
	Through	860	856	99.6%	42.7	16.8	D
	Right Turn	120	127	105.6%	29.5	13.4	C
	Second Right						
	Subtotal	1,540	1,538	99.8%	47.5	15.2	D
SB	U Turn Second Left	10	7	65.3%	58.3	34.9	E
	Left Turn	80	85	106.1%	57.3	15.0	E
	Through	960	947	98.6%	55.8	18.5	E
	Right Turn	180	180	100.1%	2.5	0.4	A
	Second Right						
	Subtotal	1,230	1,218	99.1%	47.9	14.4	D
EB	U Turn Second Left	40	23	57.6%	262.3	122.9	F
	Left Turn	270	153	56.6%	278.1	121.5	F
	Through	150	88	58.6%	212.3	115.1	F
	Right Turn	740	591	79.9%	38.2	6.2	D
	Second Right						
	Subtotal	1,200	855	71.3%	102.3	33.3	F
WB	U Turn Second Left						
	Left Turn	290	289	99.6%	89.0	23.9	F
	Through	40	45	113.3%	72.5	13.2	E
	Right Turn	70	75	107.0%	53.3	24.2	D
	Second Right						
	Subtotal	400	409	102.2%	80.4	22.0	F
Total		4,370	4,020	92.0%	61.4	11.0	E

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

Mace Ranch IC  
Modified C+P - Mitigation 1  
PM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	420	355	84.6%	79.1	16.4	E
	Through	670	579	86.4%	39.3	8.6	D
	Right Turn	120	106	88.0%	5.9	3.4	A
	Second Right						
	Subtotal	1,210	1,039	85.9%	49.9	7.4	D
SB	U Turn						
	Second Left						
	Left Turn	160	169	105.8%	49.0	4.0	D
	Through	470	460	97.9%	36.3	5.1	D
	Right Turn	10	13	130.6%	3.2	0.7	A
	Second Right						
	Subtotal	640	642	100.4%	39.1	4.0	D
EB	U Turn						
	Second Left						
	Left Turn	20	22	107.5%	50.8	16.1	D
	Through	40	45	113.3%	40.1	8.2	D
	Right Turn	240	255	106.2%	2.6	0.2	A
	Second Right						
	Subtotal	300	322	107.3%	10.9	1.9	B
WB	U Turn						
	Second Left						
	Left Turn	520	525	100.9%	53.8	17.1	D
	Through	270	260	96.4%	71.7	27.6	E
	Right Turn	220	218	99.1%	16.8	3.3	B
	Second Right						
	Subtotal	1,010	1,003	99.3%	50.7	16.7	D
Total		3,160	3,007	95.1%	43.7	7.1	D



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

Mace Ranch IC  
Modified C+P - Mitigation 1  
PM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	430	421	98.0%	8.9	2.6	A
	Through						
	Right Turn	240	235	97.8%	4.7	0.7	A
	Second Right						
	Subtotal	670	656	97.9%	7.4	1.7	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	640	628	98.2%	38.4	15.9	D
	Right Turn						
	Second Right						
	Subtotal	640	628	98.2%	38.4	15.9	D
WB	U Turn						
	Second Left						
	Left Turn						
	Through	330	314	95.2%	11.0	1.1	B
	Right Turn						
	Second Right						
	Subtotal	330	314	95.2%	11.0	1.1	B
Total		1,640	1,598	97.5%	20.3	6.8	C

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

Mace Ranch IC  
Modified C+P - Mitigation 1  
PM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	1,150	1,118	97.2%	2.8	0.3	A
	Right Turn	560	567	101.3%	2.4	0.2	A
	Second Right						
	Subtotal	1,710	1,685	98.6%	2.6	0.2	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,150	1,059	92.1%	3.2	0.4	A
	Right Turn	1,060	942	88.9%	5.8	0.3	A
	Second Right						
	Subtotal	2,210	2,001	90.6%	4.4	0.3	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		3,920	3,687	94.1%	3.6	0.2	A

**J.5.F – MODIFIED CUMULATIVE PLUS MIXED-USE ALTERNATIVE**



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

Mace Ranch IC  
Modified C+P Mixed-Use - Mitigation 1  
AM Peak Hour

Intersection 3

Mace Blvd/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	30	35	116.5%	43.7	11.7	D
	Through	710	732	103.1%	36.5	8.2	D
	Right Turn	80	79	98.9%	23.3	11.5	C
	Second Right						
	Subtotal	820	846	103.2%	35.6	8.0	D
SB	U Turn						
	Second Left						
	Left Turn	180	175	97.5%	40.8	6.3	D
	Through	350	348	99.4%	19.2	2.5	B
	Right Turn	300	279	93.1%	2.8	0.3	A
	Second Right						
	Subtotal	830	803	96.7%	18.2	1.5	B
EB	U Turn						
	Second Left						
	Left Turn	560	549	98.1%	39.8	4.0	D
	Through	190	174	91.8%	20.9	2.5	C
	Right Turn	210	202	96.4%	2.6	0.3	A
	Second Right						
	Subtotal	960	926	96.4%	28.1	2.6	C
WB	U Turn						
	Second Left						
	Left Turn	20	18	90.2%	38.1	12.4	D
	Through	70	66	94.9%	38.4	5.6	D
	Right Turn	330	318	96.5%	21.0	5.5	C
	Second Right						
	Subtotal	420	403	95.9%	24.7	4.7	C
Total		3,030	2,977	98.3%	27.2	3.0	C

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

Mace Ranch IC  
Modified C+P Mixed-Use - Mitigation 1  
AM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	360	360	100.1%	32.1	4.5	C
	Through	710	711	100.2%	22.4	2.0	C
	Right Turn						
	Second Right						
	Subtotal	1,070	1,071	100.1%	25.7	1.9	C
SB	U Turn Second Left						
	Left Turn						
	Through	1,140	1,144	100.3%	14.7	1.7	B
	Right Turn	170	156	91.5%	11.2	2.2	B
	Second Right						
	Subtotal	1,310	1,299	99.2%	14.3	1.7	B
EB	U Turn Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn Second Left						
	Left Turn	440	405	92.1%	46.2	9.8	D
	Through	10	9	88.3%	52.6	23.0	D
	Right Turn	1,120	955	85.3%	79.9	28.3	E
	Second Right						
	Subtotal	1,570	1,369	87.2%	70.0	22.1	E
Total		3,950	3,740	94.7%	38.0	8.1	D

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

Mace Ranch IC  
Modified C+P Mixed-Use - Mitigation 1  
AM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	700	621	88.8%	30.9	3.3	C
	Through	970	883	91.1%	13.8	2.7	B
	Right Turn	160	144	90.2%	9.6	3.9	A
	Second Right						
	Subtotal	1,830	1,649	90.1%	19.8	2.4	B
SB	U Turn	10	6	57.6%	21.5	21.9	C
	Second Left						
	Left Turn	60	59	97.9%	44.6	7.6	D
	Through	920	914	99.3%	25.6	4.0	C
	Right Turn	280	261	93.1%	3.4	0.6	A
	Second Right						
	Subtotal	1,270	1,239	97.5%	21.9	3.1	C
EB	U Turn	10	13	126.7%	29.2	13.9	C
	Second Left						
	Left Turn	60	54	90.2%	36.8	9.3	D
	Through	30	26	87.0%	41.4	12.6	D
	Right Turn	340	358	105.4%	6.8	1.4	A
	Second Right						
	Subtotal	440	451	102.5%	13.1	1.6	B
WB	U Turn						
	Second Left						
	Left Turn	50	48	95.2%	38.3	7.9	D
	Through	70	62	88.3%	39.8	9.0	D
	Right Turn	20	21	105.6%	16.1	6.0	B
	Second Right						
	Subtotal	140	131	93.3%	35.0	6.6	C
Total		3,680	3,469	94.3%	20.3	1.8	C

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

Mace Ranch IC  
Modified C+P Mixed-Use - Mitigation 1  
AM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	230	212	92.0%	46.3	5.4	D
	Through	620	566	91.4%	36.3	6.0	D
	Right Turn	210	185	88.1%	5.5	1.7	A
	Second Right						
	Subtotal	1,060	963	90.9%	32.6	3.9	C
SB	U Turn						
	Second Left						
	Left Turn	180	179	99.4%	44.0	4.3	D
	Through	690	667	96.6%	29.1	4.7	C
	Right Turn	20	16	80.6%	6.0	2.3	A
	Second Right						
	Subtotal	890	862	96.8%	31.8	3.6	C
EB	U Turn						
	Second Left						
	Left Turn	20	20	101.8%	38.7	6.7	D
	Through	210	211	100.4%	36.5	3.6	D
	Right Turn	480	464	96.6%	3.5	0.3	A
	Second Right						
	Subtotal	710	695	97.9%	14.5	1.1	B
WB	U Turn						
	Second Left						
	Left Turn	100	89	89.5%	40.1	6.7	D
	Through	70	60	86.1%	38.7	6.4	D
	Right Turn	50	46	92.9%	20.9	7.1	C
	Second Right						
	Subtotal	220	196	89.2%	35.1	4.6	D
Total		2,880	2,716	94.3%	27.9	2.1	C

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

Mace Ranch IC  
Modified C+P Mixed-Use - Mitigation 1  
AM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	510	497	97.4%	5.1	0.5	A
	Through						
	Right Turn	140	127	90.5%	3.3	0.5	A
	Second Right						
	Subtotal	650	623	95.9%	4.7	0.4	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	450	442	98.2%	14.7	3.8	B
	Right Turn						
	Second Right						
	Subtotal	450	442	98.2%	14.7	3.8	B
WB	U Turn						
	Second Left						
	Left Turn						
	Through	400	385	96.2%	10.9	1.0	B
	Right Turn						
	Second Right						
	Subtotal	400	385	96.2%	10.9	1.0	B
Total		1,500	1,450	96.7%	9.4	1.2	A



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

Mace Ranch IC  
Modified C+P Mixed-Use - Mitigation 1  
AM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	1,070	1,067	99.7%	2.5	0.3	A
	Right Turn	530	521	98.2%	2.3	0.3	A
	Second Right						
	Subtotal	1,600	1,588	99.2%	2.5	0.2	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	830	796	95.9%	2.0	0.2	A
	Right Turn	750	752	100.2%	4.3	0.6	A
	Second Right						
	Subtotal	1,580	1,548	97.9%	3.1	0.4	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		3,180	3,135	98.6%	2.8	0.2	A

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

Mace Ranch IC  
Modified C+P Mixed-Use - Mitigation 1  
PM Peak Hour

Intersection 3

Mace Blvd/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	20	17	86.4%	48.8	15.0	D
	Through	770	776	100.7%	32.0	4.4	C
	Right Turn	90	99	109.7%	19.1	6.2	B
	Second Right						
	Subtotal	880	892	101.3%	30.9	4.5	C
SB	U Turn Second Left						
	Left Turn	230	217	94.5%	81.7	41.6	F
	Through	680	661	97.2%	20.2	3.1	C
	Right Turn	270	252	93.2%	5.2	2.9	A
	Second Right						
	Subtotal	1,180	1,130	95.7%	28.8	10.1	C
EB	U Turn Second Left						
	Left Turn	650	590	90.8%	78.2	19.3	E
	Through	260	254	97.8%	34.7	6.2	C
	Right Turn	170	163	96.0%	2.8	0.4	A
	Second Right						
	Subtotal	1,080	1,008	93.3%	55.0	11.7	E
WB	U Turn Second Left						
	Left Turn	50	55	109.1%	48.6	7.5	D
	Through	50	46	92.9%	46.6	9.2	D
	Right Turn	340	361	106.1%	36.7	11.9	D
	Second Right						
	Subtotal	440	462	104.9%	39.2	10.0	D
Total		3,580	3,491	97.5%	38.3	3.0	D

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

Mace Ranch IC  
Modified C+P Mixed-Use - Mitigation 1  
PM Peak Hour

Intersection 4

Mace Blvd/I-80 WB Ramps

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn Second Left						
	Left Turn	490	502	102.4%	38.4	3.3	D
	Through	690	671	97.3%	23.2	1.7	C
	Right Turn						
	Second Right						
	Subtotal	1,180	1,173	99.4%	29.7	1.5	C
SB	U Turn Second Left						
	Left Turn						
	Through	1,580	1,471	93.1%	45.8	10.3	D
	Right Turn	260	245	94.1%	42.6	11.2	D
	Second Right						
	Subtotal	1,840	1,716	93.3%	45.4	10.3	D
EB	U Turn Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn Second Left						
	Left Turn	500	483	96.5%	44.6	6.4	D
	Through	10	11	107.5%	53.0	21.6	D
	Right Turn	890	827	92.9%	74.5	31.6	E
	Second Right						
	Subtotal	1,400	1,321	94.3%	63.6	21.8	E
Total		4,420	4,210	95.2%	46.7	7.4	D

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

Mace Ranch IC  
Modified C+P Mixed-Use - Mitigation 1  
PM Peak Hour

Intersection 5

Mace Blvd/2nd St-CR 32A

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	550	497	90.3%	57.0	8.9	E
	Through	940	806	85.7%	60.5	24.3	E
	Right Turn	90	91	100.7%	43.6	22.8	D
	Second Right						
	Subtotal	1,580	1,393	88.2%	57.9	18.2	E
SB	U Turn	10	9	92.2%	71.0	38.7	E
	Second Left						
	Left Turn	80	70	86.9%	61.3	12.3	E
	Through	930	865	93.0%	66.0	10.1	E
	Right Turn	180	181	100.5%	2.3	0.2	A
	Second Right						
	Subtotal	1,200	1,125	93.7%	55.4	8.7	E
EB	U Turn	40	32	79.7%	154.2	109.1	F
	Second Left						
	Left Turn	320	262	82.0%	161.5	91.1	F
	Through	150	126	84.0%	111.4	75.4	F
	Right Turn	740	706	95.4%	29.9	10.1	C
	Second Right						
	Subtotal	1,250	1,126	90.1%	71.4	31.0	E
WB	U Turn						
	Second Left						
	Left Turn	170	161	94.9%	46.2	8.4	D
	Through	40	38	96.0%	49.2	4.7	D
	Right Turn	70	67	95.5%	22.4	8.4	C
	Second Right						
	Subtotal	280	266	95.2%	40.8	6.5	D
Total		4,310	3,910	90.7%	59.3	9.3	E

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

Mace Ranch IC  
Modified C+P Mixed-Use - Mitigation 1  
PM Peak Hour

Intersection 6

Mace Blvd/Alhambra Dr

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn	490	400	81.6%	61.3	4.8	E
	Through	780	657	84.3%	37.1	6.8	D
	Right Turn	70	60	85.0%	4.4	2.0	A
	Second Right						
	Subtotal	1,340	1,117	83.3%	44.2	4.2	D
SB	U Turn						
	Second Left						
	Left Turn	90	87	96.4%	49.7	5.9	D
	Through	630	621	98.6%	43.2	6.5	D
	Right Turn	20	19	96.0%	5.1	1.2	A
	Second Right						
	Subtotal	740	727	98.2%	42.9	5.7	D
EB	U Turn						
	Second Left						
	Left Turn	20	25	122.9%	42.9	14.5	D
	Through	40	39	97.0%	39.6	8.9	D
	Right Turn	330	355	107.5%	3.1	0.2	A
	Second Right						
	Subtotal	390	418	107.2%	8.8	2.1	A
WB	U Turn						
	Second Left						
	Left Turn	240	238	99.4%	37.5	4.6	D
	Through	150	143	95.5%	42.1	7.3	D
	Right Turn	160	157	98.4%	30.4	7.3	C
	Second Right						
	Subtotal	550	539	98.0%	36.7	3.1	D
Total		3,020	2,801	92.7%	37.1	2.4	D

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

Mace Ranch IC  
Modified C+P Mixed-Use - Mitigation 1  
PM Peak Hour

Intersection 103

I-80 EB Off-Ramp/Chiles Rd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
SB	U Turn						
	Second Left						
	Left Turn	430	427	99.3%	11.1	8.4	B
	Through						
	Right Turn	240	232	96.8%	4.6	0.9	A
	Second Right						
	Subtotal	670	659	98.4%	8.8	5.5	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through	650	629	96.8%	39.3	15.6	D
	Right Turn						
	Second Right						
	Subtotal	650	629	96.8%	39.3	15.6	D
WB	U Turn						
	Second Left						
	Left Turn						
	Through	340	316	93.0%	11.3	0.7	B
	Right Turn						
	Second Right						
	Subtotal	340	316	93.0%	11.3	0.7	B
Total		1,660	1,604	96.6%	21.2	7.3	C

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

Mace Ranch IC  
Modified C+P Mixed-Use - Mitigation 1  
PM Peak Hour

Intersection 104

Mace Blvd/I-80 EB Ramps

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	U Turn						
	Second Left						
	Left Turn						
	Through	1,180	1,157	98.1%	2.7	0.3	A
	Right Turn	580	570	98.3%	2.4	0.2	A
	Second Right						
	Subtotal	1,760	1,728	98.2%	2.6	0.3	A
SB	U Turn						
	Second Left						
	Left Turn						
	Through	1,180	1,126	95.4%	4.0	2.9	A
	Right Turn	900	830	92.2%	5.5	0.4	A
	Second Right						
	Subtotal	2,080	1,956	94.0%	4.6	1.8	A
EB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
WB	U Turn						
	Second Left						
	Left Turn						
	Through						
	Right Turn						
	Second Right						
	Subtotal						
Total		3,840	3,683	95.9%	3.7	0.9	A

## **J.6 – FREEWAY ANALYSIS**

- A. Existing**
- B. Existing Plus Project**
- C. Existing Plus Mixed-Use Alternative**
- D. CEQA Cumulative No Project**
- E. CEQA Cumulative Plus Project**
- F. CEQA Cumulative Plus Mixed-Use Alternative**
- G. Modified Cumulative No Project**
- H. Modified Cumulative Plus Project**
- I. Modified Cumulative Plus Mixed-Use Alternative**





**J.6.A – EXISTING CONDITIONS**



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB & External Freeway Segments
Segment	Kidwell Road to SR-113 Junction
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,160	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	898	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,717	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	743	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.31	
Density, D	10.6	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB & External Freeway Segments
Segment	Old Davis Road to Richards Boulevard
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,253	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	1,119	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,634	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,158	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.48	
Density, D	16.5	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB & External Freeway Segments
Alternative	Richards Boulevard to Mace Boulevard
Time period	Existing Conditions
	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,908	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	997	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,127	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,376	pcphpl
Average passenger-car speed, S	69.6	mph
Volume-to-capacity ratio, v/c	0.57	
Density, D	19.8	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB & External Freeway Segments
Segment	Mace Boulevard to Chiles Road
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,611	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,201	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,971	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,657	pcphpl
Average passenger-car speed, S	67.6	mph
Volume-to-capacity ratio, v/c	0.69	
Density, D	24.5	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB & External Freeway Segments
Segment	Chiles Road to Enterprise Boulevard
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,741	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	954	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,951	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,317	pcphpl
Average passenger-car speed, S	69.8	mph
Volume-to-capacity ratio, v/c	0.55	
Density, D	18.9	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB & External Freeway Segments
Segment	Hutchison Drive to Russell Boulevard
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,403	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	385	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,588	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	529	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.22	
Density, D	7.6	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB & External Freeway Segments
Segment	Russell Boulevard to Covell Boulevard
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,122	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	308	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,270	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	635	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.26	
Density, D	9.1	pcmpl
Level of service, LOS	A	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB & External Freeway Segments
Alternative	Covell Boulevard to County Road 29
Time period	Existing Conditions
	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	765	vph
Peak-hour factor, PHF	0.89	
Peak 15-min volume, $v_{15}$	215	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	890	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	445	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.19	
Density, D	6.4	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB & External Freeway Segments
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	816	vph
Peak-hour factor, PHF	0.86	
Peak 15-min volume, $v_{15}$	237	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	987	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	493	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.21	
Density, D	7.0	pcpmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Enterprise Boulevard to Chiles Road
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,710	vph
Peak-hour factor, PHF	1.00	
Peak 15-min volume, $v_{15}$	928	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,840	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,280	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.3	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Chiles Road to Mace Boulevard
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,336	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	869	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,597	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,199	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.50	
Density, D	17.1	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Mace Boulevard to Olive Drive
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,701	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,224	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,068	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,689	pcphpl
Average passenger-car speed, S	67.2	mph
Volume-to-capacity ratio, v/c	0.70	
Density, D	25.1	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Richards Boulevard to Old Davis Road
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,314	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	1,185	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,883	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,221	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.51	
Density, D	17.4	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	County Road 27 to County Road 29
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,079	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	571	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,365	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,182	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.49	
Density, D	16.9	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	County Road 29 to Covell Boulevard
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,957	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	556	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,291	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,145	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.48	
Density, D	16.4	pcmpl
Level of service, LOS	B	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Covell Boulevard to Russell Boulevard
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,943	vph
Peak-hour factor, PHF	0.81	
Peak 15-min volume, $v_{15}$	600	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,471	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,235	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.51	
Density, D	17.7	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Russell Boulevard to Hutchison Drive
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,426	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	625	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,564	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,282	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.3	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	SR-113 Junction to Kidwell Road
Alternative	Existing Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,722	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	959	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,971	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	993	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.41	
Density, D	14.2	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Kidwell Road to SR-113 Junction
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,637	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	947	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,921	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	784	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.33	
Density, D	11.2	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Old Davis Road to Richards Boulevard
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,729	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,206	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,994	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,249	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.52	
Density, D	17.8	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Richards Boulevard to Mace Boulevard
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,219	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,076	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,456	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,485	pcphpl
Average passenger-car speed, S	69.1	mph
Volume-to-capacity ratio, v/c	0.62	
Density, D	21.5	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Mace Boulevard to Chiles Road
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,854	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,251	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,179	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,726	pcphpl
Average passenger-car speed, S	66.8	mph
Volume-to-capacity ratio, $v/c$	0.72	
Density, D	25.9	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Chiles Road to Enterprise Boulevard
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,576	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,167	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,833	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,611	pcphpl
Average passenger-car speed, S	68.0	mph
Volume-to-capacity ratio, $v/c$	0.67	
Density, D	23.7	pcmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Hutchison Drive to Russell Boulevard
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,277	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	599	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,469	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	823	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.34	
Density, D	11.8	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Russell Boulevard to Covell Boulevard
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,928	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	507	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,090	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,045	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.44	
Density, D	14.9	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Covell Boulevard to County Road 29
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,646	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	452	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,872	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	936	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.39	
Density, D	13.4	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	County Road 29 to County Road 27
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,471	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	418	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,738	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	869	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.36	
Density, D	12.4	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Enterprise Boulevard to Chiles Road
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,854	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	983	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,070	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,357	pcphpl
Average passenger-car speed, S	69.7	mph
Volume-to-capacity ratio, $v/c$	0.57	
Density, D	19.5	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Chiles Road to Mace Boulevard
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,131	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,054	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,363	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,454	pcphpl
Average passenger-car speed, S	69.2	mph
Volume-to-capacity ratio, v/c	0.61	
Density, D	21.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Mace Boulevard to Olive Drive
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,343	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,108	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,587	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,529	pcphpl
Average passenger-car speed, S	68.7	mph
Volume-to-capacity ratio, v/c	0.64	
Density, D	22.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Richards Boulevard to Old Davis Road
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,456	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	1,211	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,989	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,663	pcphpl
Average passenger-car speed, S	67.5	mph
Volume-to-capacity ratio, v/c	0.69	
Density, D	25.0	pcpmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	County Road 27 to County Road 29
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,913	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	520	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,152	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,076	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.45	
Density, D	15.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	County Road 29 to Covell Boulevard
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,957	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	532	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,191	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,095	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.46	
Density, D	16.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Covell Boulevard to Russell Boulevard
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,133	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	289	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,191	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	595	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.25	
Density, D	9.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Russell Boulevard to Hutchison Drive
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,349	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	359	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,471	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	490	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.20	
Density, D	7.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	SR-113 Junction to Kidwell Road
Alternative	Existing Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,336	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	1,153	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,774	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,194	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.50	
Density, D	17.0	pcmpl
Level of service, LOS	B	

**J.6.B - EXISTING PLUS PROJECT**



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB Local Freeway Segments (10) I-80 to SR 113 Jct.
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,500	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	994	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,116	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	823	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.34	
Density, D	12.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	(12) SR 113 Split On to Richards Blvd Off
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,540	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	1,195	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,946	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,237	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.52	
Density, D	18.0	pcpmpl
Level of service, LOS	B	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB Local Freeway Segments (14) Richards On to Mace Off
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,170	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,064	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,404	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,468	pcphpl
Average passenger-car speed, S	69.2	mph
Volume-to-capacity ratio, v/c	0.61	
Density, D	21.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB Local Freeway Segments (16) Mace On to Chiles On
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,760	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,240	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,132	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,711	pcphpl
Average passenger-car speed, S	67.0	mph
Volume-to-capacity ratio, v/c	0.71	
Density, D	26.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	(18) Chiles on to West Sac
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,890	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	992	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,108	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,369	pcphpl
Average passenger-car speed, S	69.7	mph
Volume-to-capacity ratio, $v/c$	0.57	
Density, D	20.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB Local Freeway Segments (8) Hutchinson Off to Russell Blvd On
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,680	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	462	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,902	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	634	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.26	
Density, D	9.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	(6) Russell On to Covell Off
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,270	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	349	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,437	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	719	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.30	
Density, D	10.0	pcpmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	(4) Covell On to Cnty Rd 29
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	810	vph
Peak-hour factor, PHF	0.89	
Peak 15-min volume, $v_{15}$	228	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	942	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	471	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.20	
Density, D	7.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	(2) Cnty Rd 29 to Cnty Rd 27
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	870	vph
Peak-hour factor, PHF	0.86	
Peak 15-min volume, $v_{15}$	253	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,052	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	526	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.22	
Density, D	8.0	pcpmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments (17) I-80 West Sac to Chiles Rd
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,790	vph
Peak-hour factor, PHF	1.00	
Peak 15-min volume, $v_{15}$	1,198	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,958	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,653	pcphpl
Average passenger-car speed, S	67.6	mph
Volume-to-capacity ratio, v/c	0.69	
Density, D	24.0	pcpmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments (15) Chiles Rd to Mace Blvd
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,420	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,151	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,765	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,588	pcphpl
Average passenger-car speed, S	68.2	mph
Volume-to-capacity ratio, v/c	0.66	
Density, D	23.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	(13) Mace Blvd To Olive Off
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,930	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,284	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,315	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,772	pcphpl
Average passenger-car speed, S	66.2	mph
Volume-to-capacity ratio, $v/c$	0.74	
Density, D	27.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments (11) Richards Blvd to Old Davis Rd
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,810	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	1,321	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,444	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,361	pcphpl
Average passenger-car speed, S	69.7	mph
Volume-to-capacity ratio, v/c	0.57	
Density, D	20.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	(1) SR 113 Cnty Rd 27 to Cnty Rd 29
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,430	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	668	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,764	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,382	pcphpl
Average passenger-car speed, S	69.6	mph
Volume-to-capacity ratio, v/c	0.58	
Density, D	20.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments (3) Cnty Rd 29 to Covell
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,250	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	639	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,634	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,317	pcphpl
Average passenger-car speed, S	69.8	mph
Volume-to-capacity ratio, v/c	0.55	
Density, D	19.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments (5) Covell to Russell
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,770	vph
Peak-hour factor, PHF	0.81	
Peak 15-min volume, $v_{15}$	855	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,522	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,761	pcphpl
Average passenger-car speed, S	66.3	mph
Volume-to-capacity ratio, $v/c$	0.73	
Density, D	27.0	pcmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	(7) Russell Blvd to Hutchinson
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,330	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	858	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,519	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,759	pcphpl
Average passenger-car speed, S	66.4	mph
Volume-to-capacity ratio, $v/c$	0.73	
Density, D	27.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	(9)I-80 SR 113 Split to Kidwell
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,810	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,240	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,132	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,283	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.0	pcpmpl
Level of service, LOS	B	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	(10) I-80 to SR 113 Jct
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,700	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	964	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,989	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.33	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.1	mph
Calculated free-flow speed, FFS	71.3	mph
Measured free-flow speed, FFS	70.0	mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	798	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.33	
Density, D	11.0	pcpmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	(12) SR 113 Split On to Richards Blvd Off
Alternative	Existing Conditions Plus Project (MRC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,970	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,268	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,249	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.50	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.5	mph
Calculated free-flow speed, FFS	70.9	mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,312	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.55	
Density, D	19.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB Local Freeway Segments (14) Richards On to Mace Off
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,500	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,148	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,753	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,584	pcphpl
Average passenger-car speed, S	68.3	mph
Volume-to-capacity ratio, v/c	0.66	
Density, D	23.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB Local Freeway Segments (16) Mace On to Chiles On
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,800	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,495	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,189	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,063	pcphpl
Average passenger-car speed, S	61.4	mph
Volume-to-capacity ratio, v/c	0.86	
Density, D	34.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB Local Freeway Segments (18) Chiles on to West Sac
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,520	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,408	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,830	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,943	pcphpl
Average passenger-car speed, S	63.6	mph
Volume-to-capacity ratio, v/c	0.81	
Density, D	31.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	(8) Hutchinson Off to Russell Blvd On
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,320	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	611	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,515	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	838	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.35	
Density, D	12.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	(6) Russell On to Covell Off
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,000	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	526	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,168	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,084	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.45	
Density, D	15.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	(4) Covell On to Cnty Rd 29
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,960	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	538	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,229	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,115	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.46	
Density, D	16.0	pcpmpl
Level of service, LOS	B	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	(2) Cnty Rd 29 to Cnty Rd 27
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,780	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	506	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,104	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,052	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.44	
Density, D	15.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments (17) I-80 West Sac to Chiles Rd
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,590	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,171	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,848	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,616	pcphpl
Average passenger-car speed, S	68.0	mph
Volume-to-capacity ratio, $v/c$	0.67	
Density, D	24.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments (15) Chiles Rd to Mace Blvd
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,330	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,105	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,573	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,524	pcphpl
Average passenger-car speed, S	68.8	mph
Volume-to-capacity ratio, v/c	0.64	
Density, D	22.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	(13) Mace Blvd To Olive Off
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,680	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,194	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,943	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,648	pcphpl
Average passenger-car speed, S	67.7	mph
Volume-to-capacity ratio, $v/c$	0.69	
Density, D	24.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	(11) Richardson On to Old Davis Rd Off
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,060	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	1,375	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,665	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,888	pcphpl
Average passenger-car speed, S	64.5	mph
Volume-to-capacity ratio, $v/c$	0.79	
Density, D	29.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	(1) SR 113 Cnty Rd 27 to Cnty Rd 29
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,980	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	538	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,228	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,114	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.46	
Density, D	16.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments (3) Cnty Rd 29 to Covell
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,020	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	549	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,262	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,131	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.47	
Density, D	16.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments (5) Covell to Russell
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,590	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	406	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,671	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	836	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.35	
Density, D	12.0	pcmpl
Level of service, LOS	B	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	(7) Russell Blvd to Hutchinson
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,910	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	508	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,083	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	694	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.29	
Density, D	10.0	pcpmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	(9)I-80 SR 113 Split to Kidwell
Alternative	Existing Conditions Plus Project (MRIC)
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,640	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	1,234	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,109	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,277	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.0	pcmpl
Level of service, LOS	B	

**J.6.C – EXISTING PLUS MIXED-USE ALTERNATIVE**



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	I-80 to SR 113 Jct.
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,340	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	949	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,928	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	786	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.33	
Density, D	11.0	pcpmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	SR 113 Split On to Richards Blvd Off
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,450	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	1,171	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,848	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,212	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.51	
Density, D	17.0	pcmppl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Richards Blvd On to Mace Blvd Off
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,100	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,046	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,330	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,443	pcphpl
Average passenger-car speed, S	69.3	mph
Volume-to-capacity ratio, v/c	0.60	
Density, D	21.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Mace Blvd On to Chiles Rd On
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,740	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,234	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,110	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,703	pcphpl
Average passenger-car speed, S	67.1	mph
Volume-to-capacity ratio, v/c	0.71	
Density, D	25.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Chiles Rd On to West Sac
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,810	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	972	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,024	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,341	pcphpl
Average passenger-car speed, S	69.8	mph
Volume-to-capacity ratio, v/c	0.56	
Density, D	19.0	pcpmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Hutchinson Dr Off to Russell Blvd On
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,480	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	407	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,675	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	558	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.23	
Density, D	8.0	pcpmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Russell Blvd On to Covell Blvd Off
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,150	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	316	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,302	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	651	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.27	
Density, D	9.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Covell Blvd On to County Rd 29
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	800	vph
Peak-hour factor, PHF	0.89	
Peak 15-min volume, $v_{15}$	225	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	930	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	465	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.19	
Density, D	7.0	pcpmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	County Rd 29 to County Rd 27
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	860	vph
Peak-hour factor, PHF	0.86	
Peak 15-min volume, $v_{15}$	250	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,040	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	520	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.22	
Density, D	7.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	I-80 West Sac to Chiles Rd
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,280	vph
Peak-hour factor, PHF	1.00	
Peak 15-min volume, $v_{15}$	1,070	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,430	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,477	pcphpl
Average passenger-car speed, S	69.1	mph
Volume-to-capacity ratio, v/c	0.62	
Density, D	21.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Chiles Rd to Mace Blvd
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,900	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,016	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,205	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,402	pcphpl
Average passenger-car speed, S	69.5	mph
Volume-to-capacity ratio, v/c	0.58	
Density, D	20.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Mace Blvd To Olive Dr Off
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,820	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,255	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,197	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,732	pcphpl
Average passenger-car speed, S	66.7	mph
Volume-to-capacity ratio, v/c	0.72	
Density, D	26.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Richardson Blvd On to Old Davis Rd Off
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,360	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	1,198	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,935	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,234	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.51	
Density, D	18.0	pcpmpl
Level of service, LOS	B	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	SR 113 County Rd 27 to County Rd 29
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,260	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	621	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,570	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,285	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.54	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	County Rd 29 to Covell
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,120	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, v <sub>15</sub>	602	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, E <sub>T</sub>	1.5	
Recreational vehicle PCE, E <sub>R</sub>	1.2	
Heavy vehicle adjustment, f <sub>HV</sub>	0.971	
Driver population factor, f <sub>p</sub>	1.00	
Flow rate, v <sub>p</sub>	2,481	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, f <sub>LW</sub>		mph
Lateral clearance adjustment, f <sub>LC</sub>		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, v <sub>p</sub>	1,241	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.52	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Covell Blvd to Russell Blvd
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,970	vph
Peak-hour factor, PHF	0.81	
Peak 15-min volume, $v_{15}$	608	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,505	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,253	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.52	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Russell Blvd to Hutchinson Dr
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,540	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	655	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,684	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,342	pcphpl
Average passenger-car speed, S	69.8	mph
Volume-to-capacity ratio, v/c	0.56	
Density, D	19.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	I-80 SR 113 Split to Kidwell Rd
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,770	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	972	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,023	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,006	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.42	
Density, D	14.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	I-80 to SR 113 Jct.
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,690	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	961	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,978	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.33	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.1	mph
Calculated free-flow speed, FFS	71.3	mph
Measured free-flow speed, FFS	70.0	mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	796	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.33	
Density, D	11.0	pcpmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	SR 113 Split On to Richards Blvd Off
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,840	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,235	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,112	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.50	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.5	mph
Calculated free-flow speed, FFS	70.9	mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,278	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Richards Blvd On to Mace Blvd Off
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,400	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,122	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,647	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,549	pcphpl
Average passenger-car speed, S	68.6	mph
Volume-to-capacity ratio, v/c	0.65	
Density, D	23.0	pcmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Mace Blvd On to Chiles Rd On
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,380	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,387	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,741	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,914	pcphpl
Average passenger-car speed, S	64.1	mph
Volume-to-capacity ratio, v/c	0.80	
Density, D	30.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Chiles Rd On to West Sac
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,100	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,301	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,386	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,795	pcphpl
Average passenger-car speed, S	65.9	mph
Volume-to-capacity ratio, $v/c$	0.75	
Density, D	27.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Hutchinson Dr Off to Russell Blvd On
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,240	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	589	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,429	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	810	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.34	
Density, D	12.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Russell Blvd On to Covell Blvd Off
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,960	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	516	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,125	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,063	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.44	
Density, D	15.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Covell Blvd On to County Rd 29
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,820	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	500	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,070	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,035	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.43	
Density, D	15.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	County Rd 29 to County Rd 27
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,640	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	466	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,938	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	969	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.40	
Density, D	14.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	I-80 West Sac to Chiles Rd
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,560	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,163	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,816	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,605	pcphpl
Average passenger-car speed, S	68.1	mph
Volume-to-capacity ratio, $v/c$	0.67	
Density, D	24.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Chiles Rd to Mace Blvd
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,300	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,097	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,541	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,514	pcphpl
Average passenger-car speed, S	68.9	mph
Volume-to-capacity ratio, v/c	0.63	
Density, D	22.0	pcpmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Mace Blvd To Olive Dr Off
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,550	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, v <sub>15</sub>	1,161	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, E <sub>T</sub>	1.5	
Recreational vehicle PCE, E <sub>R</sub>	1.2	
Heavy vehicle adjustment, f <sub>HV</sub>	0.966	
Driver population factor, f <sub>p</sub>	1.00	
Flow rate, v <sub>p</sub>	4,805	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, f <sub>LW</sub>		mph
Lateral clearance adjustment, f <sub>LC</sub>		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, v <sub>p</sub>	1,602	pcphpl
Average passenger-car speed, S	68.1	mph
Volume-to-capacity ratio, v/c	0.67	
Density, D	24.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Richardson Blvd On to Old Davis Rd Off
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,630	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	1,258	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,184	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,728	pcphpl
Average passenger-car speed, S	66.8	mph
Volume-to-capacity ratio, v/c	0.72	
Density, D	26.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	SR 113 County Rd 27 to County Rd 29
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,970	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	535	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,216	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,108	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.46	
Density, D	16.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	County Rd 29 to Covell
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,010	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	546	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,250	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,125	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.47	
Density, D	16.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Covell Blvd to Russell Blvd
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,540	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	393	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,619	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	809	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.34	
Density, D	12.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Russell Blvd to Hutchinson Dr
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,410	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	375	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,538	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	513	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.21	
Density, D	7.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	I-80 SR 113 Split to Kidwell Rd
Alternative	Existing Conditions with MRIC Mixed Use
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,500	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	1,197	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,955	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,239	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.52	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

**J.6.D – CEQA CUMULATIVE NO PROJECT**





HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Kidwell Road to SR-113 Junction
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,790	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	1,361	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,634	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,127	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.47	
Density, D	16.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Old Davis Road to Richards Boulevard
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,820	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	1,532	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,341	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,585	pcphpl
Average passenger-car speed, S	68.3	mph
Volume-to-capacity ratio, v/c	0.66	
Density, D	23.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Richards Blvd Off to Richards Blvd On
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	0	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	0	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	0	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	0	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.00	
Density, D	0.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Mace Boulevard to Chiles Road
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,730	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,492	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,178	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,059	pcphpl
Average passenger-car speed, S	61.4	mph
Volume-to-capacity ratio, v/c	0.86	
Density, D	34.0	pcmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Chiles Road to Enterprise Boulevard
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,860	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,240	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,133	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,711	pcphpl
Average passenger-car speed, S	67.0	mph
Volume-to-capacity ratio, v/c	0.71	
Density, D	26.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	SR 113 Split
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	0	vph
Peak-hour factor, PHF	0.82	
Peak 15-min volume, $v_{15}$	0	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	0	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	0	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.00	
Density, D	0.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Hutchison Drive to Russell Boulevard
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,270	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	898	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,701	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,234	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.51	
Density, D	18.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB Local Freeway Segments
Alternative	Russell Boulevard to Covell Boulevard
Time period	Cumulative No Project MRIC
	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,470	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	679	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,796	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,398	pcphpl
Average passenger-car speed, S	69.5	mph
Volume-to-capacity ratio, v/c	0.58	
Density, D	20.0	pcpmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Covell Boulevard to County Road 29
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,140	vph
Peak-hour factor, PHF	0.89	
Peak 15-min volume, $v_{15}$	320	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,326	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	663	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.28	
Density, D	9.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Kidwell Road to SR-113 Junction
Alternative	Cumulative No Project MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,690	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,221	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,056	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.33	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.1	mph
Calculated free-flow speed, FFS	71.3	mph
Measured free-flow speed, FFS	70.0	mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,011	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.42	
Density, D	14.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Old Davis Road to Richards Boulevard
Alternative	Cumulative No Project MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,990	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,783	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,382	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.50	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.5	mph
Calculated free-flow speed, FFS	70.9	mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,846	pcphpl
Average passenger-car speed, S	65.2	mph
Volume-to-capacity ratio, v/c	0.77	
Density, D	28.0	pcmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB Local Freeway Segments
Alternative	Richards Boulevard to Mace Boulevard
Time period	Cumulative No Project MRIC
	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,270	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,599	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,622	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,207	pcphpl
Average passenger-car speed, S	58.2	mph
Volume-to-capacity ratio, v/c	0.92	
Density, D	38.0	pcmpl
Level of service, LOS	E	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Mace Boulevard to Chiles Road
Alternative	Cumulative No Project MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	7,580	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,954	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	8,088	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,696	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.12	
Density, D	-	pcpmppl
Level of service, LOS	F	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Chiles Road to Enterprise Boulevard
Alternative	Cumulative No Project MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	7,300	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,862	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,710	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,570	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.07	
Density, D	-	pcmpl
Level of service, LOS	F	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Hutchison Drive to Russell Boulevard
Alternative	Cumulative No Project MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,380	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	889	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,665	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,222	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.51	
Density, D	17.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Russell Boulevard to Covell Boulevard
Alternative	Cumulative No Project MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,760	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	726	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,992	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,496	pcphpl
Average passenger-car speed, S	69.0	mph
Volume-to-capacity ratio, v/c	0.62	
Density, D	22.0	pcmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Covell Boulevard to County Road 29
Alternative	Cumulative No Project MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,320	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	637	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,639	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,319	pcphpl
Average passenger-car speed, S	69.8	mph
Volume-to-capacity ratio, v/c	0.55	
Density, D	19.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	County Road 29 to County Road 27
Alternative	Cumulative No Project MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,670	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	759	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,155	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,578	pcphpl
Average passenger-car speed, S	68.3	mph
Volume-to-capacity ratio, v/c	0.66	
Density, D	23.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Enterprise Boulevard to Chiles Road
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,580	vph
Peak-hour factor, PHF	1.00	
Peak 15-min volume, $v_{15}$	1,645	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,810	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,270	pcphpl
Average passenger-car speed, S	56.7	mph
Volume-to-capacity ratio, v/c	0.95	
Density, D	40.0	pcpmpl
Level of service, LOS	E	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Chiles Road to Mace Boulevard
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,200	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,615	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,684	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,228	pcphpl
Average passenger-car speed, S	57.7	mph
Volume-to-capacity ratio, v/c	0.93	
Density, D	39.0	pcmpl
Level of service, LOS	E	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Mace Boulevard to Olive Drive
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,840	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,781	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,374	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,458	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.02	
Density, D	-	pcmpl
Level of service, LOS	F	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Richards Boulevard to Old Davis Road
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,370	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	1,750	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,210	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,803	pcphpl
Average passenger-car speed, S	65.8	mph
Volume-to-capacity ratio, v/c	0.75	
Density, D	27.0	pcmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments
Alternative	County Road 27 to County Road 29
Time period	Cumulative No Project MRIC
	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,360	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	923	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,822	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,911	pcphpl
Average passenger-car speed, S	64.1	mph
Volume-to-capacity ratio, v/c	0.80	
Density, D	30.0	pcmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments
Alternative	County Road 29 to Covell Boulevard
Time period	Cumulative No Project MRIC
	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,770	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	787	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,242	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,621	pcphpl
Average passenger-car speed, S	67.9	mph
Volume-to-capacity ratio, v/c	0.68	
Density, D	24.0	pcmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Covell Boulevard to Russell Boulevard
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,400	vph
Peak-hour factor, PHF	0.81	
Peak 15-min volume, $v_{15}$	741	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,052	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,526	pcphpl
Average passenger-car speed, S	68.8	mph
Volume-to-capacity ratio, v/c	0.64	
Density, D	22.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Russell Boulevard to Hutchison Drive
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,270	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	843	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,455	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,728	pcphpl
Average passenger-car speed, S	66.8	mph
Volume-to-capacity ratio, v/c	0.72	
Density, D	26.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	SR-113 Junction to Kidwell Road
Alternative	Cumulative No Project MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,760	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,227	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,079	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,270	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Enterprise Boulevard to Chiles Road
Alternative	Cumulative No Project MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,630	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,436	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,946	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,982	pcphpl
Average passenger-car speed, S	62.9	mph
Volume-to-capacity ratio, v/c	0.83	
Density, D	32.0	pcmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Chiles Road to Mace Boulevard
Alternative	Cumulative No Project MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,360	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,367	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,661	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,887	pcphpl
Average passenger-car speed, S	64.5	mph
Volume-to-capacity ratio, v/c	0.79	
Density, D	29.0	pcmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Mace Boulevard to Olive Drive
Alternative	Cumulative No Project MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,680	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,449	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,999	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,000	pcphpl
Average passenger-car speed, S	62.6	mph
Volume-to-capacity ratio, v/c	0.83	
Density, D	32.0	pcmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments
Alternative	Richards Boulevard to Old Davis Road
Time period	Cumulative No Project MRIC
	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,220	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	1,690	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,964	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,321	pcphpl
Average passenger-car speed, S	55.4	mph
Volume-to-capacity ratio, v/c	0.97	
Density, D	42.0	pcpmpl
Level of service, LOS	E	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments
Alternative	County Road 27 to County Road 29
Time period	Cumulative No Project MRIC
	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,360	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	641	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,655	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,328	pcphpl
Average passenger-car speed, S	69.8	mph
Volume-to-capacity ratio, v/c	0.55	
Density, D	19.0	pcmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments
Alternative	County Road 29 to Covell Boulevard
Time period	Cumulative No Project MRIC
	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,300	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	625	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,575	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,288	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.54	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Covell Boulevard to Russell Boulevard
Alternative	Cumulative No Project MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,890	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	737	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,037	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,519	pcphpl
Average passenger-car speed, S	68.8	mph
Volume-to-capacity ratio, v/c	0.63	
Density, D	22.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Russell Boulevard to Hutchison Drive
Alternative	Cumulative No Project MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,410	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	907	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,718	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,239	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.52	
Density, D	18.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	SR-113 Junction to Kidwell Road
Alternative	Cumulative No Project MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,920	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	1,574	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,518	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,630	pcphpl
Average passenger-car speed, S	67.9	mph
Volume-to-capacity ratio, $v/c$	0.68	
Density, D	24.0	pcpmpl
Level of service, LOS	C	

**J.6.E – CEQA CUMULATIVE PLUS PROJECT**



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Kidwell Road to SR-113 Junction
Alternative	Cumulative Plus Project Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,120	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	1,455	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,022	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,204	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.50	
Density, D	17.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Old Davis Road to Richards Boulevard
Alternative	Cumulative Plus Project Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,750	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	1,513	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,264	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,566	pcphpl
Average passenger-car speed, S	68.4	mph
Volume-to-capacity ratio, v/c	0.65	
Density, D	23.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB Local Freeway Segments
Alternative	Richards Boulevard to Mace Boulevard
Time period	Cumulative Plus Project Conditions
	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,950	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,263	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,228	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,743	pcphpl
Average passenger-car speed, S	66.6	mph
Volume-to-capacity ratio, v/c	0.73	
Density, D	26.0	pcpmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Mace Boulevard to Chiles Road
Alternative	Cumulative Plus Project Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,880	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,531	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,339	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,113	pcphpl
Average passenger-car speed, S	60.3	mph
Volume-to-capacity ratio, v/c	0.88	
Density, D	35.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Chiles Road to Enterprise Boulevard
Alternative	Cumulative Plus Project Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,010	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,278	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,291	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,764	pcphpl
Average passenger-car speed, S	66.3	mph
Volume-to-capacity ratio, v/c	0.73	
Density, D	27.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Hutchison Drive to Russell Boulevard
Alternative	Cumulative Plus Project Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,420	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	940	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,871	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	#VALUE!

LOS and Performance Measures

Flow rate, $v_p$	1,290	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, $v/c$	0.54	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Russell Boulevard to Covell Boulevard
Alternative	Cumulative Plus Project Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,600	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	714	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,943	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,471	pcphpl
Average passenger-car speed, S	69.1	mph
Volume-to-capacity ratio, v/c	0.61	
Density, D	21.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Covell Boulevard to County Road 29
Alternative	Cumulative Plus Project Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,230	vph
Peak-hour factor, PHF	0.89	
Peak 15-min volume, $v_{15}$	346	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,430	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	715	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.30	
Density, D	10.0	pcpmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	County Road 29 to County Road 27
Alternative	Cumulative Plus Project Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,260	vph
Peak-hour factor, PHF	0.86	
Peak 15-min volume, $v_{15}$	366	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,524	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	762	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.32	
Density, D	11.0	pcpmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Enterprise Boulevard to Chiles Road
Alternative	Cumulative Plus Project Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	7,650	vph
Peak-hour factor, PHF	1.00	
Peak 15-min volume, $v_{15}$	1,913	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,918	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,639	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.10	
Density, D	-	pcpmpl
Level of service, LOS	F	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Chiles Road to Mace Boulevard
Alternative	Cumulative Plus Project Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	7,280	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,896	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,849	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,616	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.09	
Density, D	-	pcpmppl
Level of service, LOS	F	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments (10.5) Richson Off to Rich On
Alternative	Cumulative Plus Project Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	0	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	0	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	0	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	0	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.00	
Density, D	0.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments
Alternative	Richards Boulevard to Old Davis Road
Time period	Cumulative Plus Project Conditions
	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,750	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	1,854	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,640	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,910	pcphpl
Average passenger-car speed, S	64.2	mph
Volume-to-capacity ratio, v/c	0.80	
Density, D	30.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments
Alternative	County Road 27 to County Road 29
Time period	Cumulative Plus Project Conditions
	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,760	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	1,033	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,276	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,138	pcphpl
Average passenger-car speed, S	59.8	mph
Volume-to-capacity ratio, v/c	0.89	
Density, D	36.0	pcpmpl
Level of service, LOS	E	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Covell Boulevard to Russell Boulevard
Alternative	Cumulative Plus Project Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,110	vph
Peak-hour factor, PHF	0.81	
Peak 15-min volume, $v_{15}$	960	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,955	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,977	pcphpl
Average passenger-car speed, S	63.0	mph
Volume-to-capacity ratio, v/c	0.82	
Density, D	31.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Russell Boulevard to Hutchison Drive
Alternative	Cumulative Plus Project Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,010	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,034	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,237	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,119	pcphpl
Average passenger-car speed, S	60.2	mph
Volume-to-capacity ratio, v/c	0.88	
Density, D	35.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	SR-113 Junction to Kidwell Road
Alternative	Cumulative Plus Project Conditions
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,810	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,240	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,132	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,283	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments
Alternative	0
Time period	Cumulative Plus Project Conditions Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	#VALUE!	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	#VALUE!	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	#VALUE!	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	#VALUE!	pcphpl
Average passenger-car speed, S	#VALUE!	mph
Volume-to-capacity ratio, $v/c$	#VALUE!	
Density, D	#VALUE!	pcmppl
Level of service, LOS	#VALUE!	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Kidwell Road to SR-113 Junction
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,700	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,484	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,145	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.33	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.1	mph
Calculated free-flow speed, FFS	71.3	mph
Measured free-flow speed, FFS	70.0	mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,229	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.51	
Density, D	18.0	pcmpl
Level of service, LOS	B	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Old Davis Road to Richards Boulevard
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,810	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,737	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,192	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.50	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.5	mph
Calculated free-flow speed, FFS	70.9	mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,798	pcphpl
Average passenger-car speed, S	65.9	mph
Volume-to-capacity ratio, v/c	0.75	
Density, D	27.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB Local Freeway Segments
Alternative	Richards Boulevard to Mace Boulevard
Time period	Cumulative Plus Project Conditions
	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,660	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,699	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,034	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,345	pcphpl
Average passenger-car speed, S	54.8	mph
Volume-to-capacity ratio, v/c	0.98	
Density, D	43.0	pcpmpl
Level of service, LOS	E	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Mace Boulevard to Chiles Road
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	9,540	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	2,459	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	10,179	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	3,393	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.41	
Density, D	-	pcpmp
Level of service, LOS	F	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Chiles Road to Enterprise Boulevard
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	8,890	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	2,268	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	9,389	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	3,130	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.30	
Density, D	-	pcpmp
Level of service, LOS	F	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Hutchison Drive to Russell Boulevard
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,300	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	868	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,578	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	#VALUE!

LOS and Performance Measures

Flow rate, $v_p$	1,193	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.50	
Density, D	17.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	Russell Boulevard to Covell Boulevard
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,690	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	708	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,917	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,458	pcphpl
Average passenger-car speed, S	69.2	mph
Volume-to-capacity ratio, v/c	0.61	
Density, D	21.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 EB, SR-113 NB Local Freeway Segments
Alternative	Covell Boulevard to County Road 29
Time period	Cumulative Plus Project Conditions
	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,380	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	654	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,707	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,353	pcphpl
Average passenger-car speed, S	69.7	mph
Volume-to-capacity ratio, v/c	0.56	
Density, D	19.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB, SR-113 NB Local Freeway Segments
Segment	County Road 29 to County Road 27
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,030	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	861	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,581	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,790	pcphpl
Average passenger-car speed, S	66.0	mph
Volume-to-capacity ratio, $v/c$	0.75	
Density, D	27.0	pcpmpl
Level of service, LOS	D	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Enterprise Boulevard to Chiles Road
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,820	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,485	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,147	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,049	pcphpl
Average passenger-car speed, S	61.6	mph
Volume-to-capacity ratio, v/c	0.85	
Density, D	33.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Chiles Road to Mace Boulevard
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,550	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,416	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,861	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,954	pcphpl
Average passenger-car speed, S	63.4	mph
Volume-to-capacity ratio, v/c	0.81	
Density, D	31.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Mace Boulevard to Olive Drive
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,710	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,457	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,030	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,010	pcphpl
Average passenger-car speed, S	62.4	mph
Volume-to-capacity ratio, v/c	0.84	
Density, D	32.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Richards Boulevard to Old Davis Road
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,430	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	1,747	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,199	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,400	pcphpl
Average passenger-car speed, S	53.3	mph
Volume-to-capacity ratio, v/c	1.00	
Density, D	45.0	pcpmpl
Level of service, LOS	E	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway Segment	I-80 WB, SR-113 SB Local Freeway Segments
Alternative	County Road 27 to County Road 29
Time period	Cumulative Plus Project Conditions
	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,430	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	660	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,734	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,367	pcphpl
Average passenger-car speed, S	69.7	mph
Volume-to-capacity ratio, v/c	0.57	
Density, D	20.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	County Road 29 to Covell Boulevard
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,470	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	671	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,765	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,383	pcphpl
Average passenger-car speed, S	69.6	mph
Volume-to-capacity ratio, v/c	0.58	
Density, D	20.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Covell Boulevard to Russell Boulevard
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,970	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	758	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,122	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,561	pcphpl
Average passenger-car speed, S	68.5	mph
Volume-to-capacity ratio, v/c	0.65	
Density, D	23.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	Russell Boulevard to Hutchison Drive
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,930	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	1,045	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,285	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,428	pcphpl
Average passenger-car speed, S	69.4	mph
Volume-to-capacity ratio, v/c	0.60	
Density, D	21.0	pcpmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB, SR-113 SB Local Freeway Segments
Segment	SR-113 Junction to Kidwell Road
Alternative	Cumulative Plus Project Conditions
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,220	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	1,654	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,849	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,712	pcphpl
Average passenger-car speed, S	67.0	mph
Volume-to-capacity ratio, v/c	0.71	
Density, D	26.0	pcpmpl
Level of service, LOS	C	

**J.6.F – CEQA CUMULATIVE PLUS MIXED-USE ALTERNATIVE**



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	I-80 to SR 113 Jct.
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,980	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	1,415	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,857	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,171	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.49	
Density, D	17.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	SR 113 Split On to Richards Blvd Off
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,700	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	1,500	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,210	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,553	pcphpl
Average passenger-car speed, S	68.6	mph
Volume-to-capacity ratio, v/c	0.65	
Density, D	23.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Richards Blvd On to Mace Blvd Off
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,980	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,270	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,259	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,753	pcphpl
Average passenger-car speed, S	66.5	mph
Volume-to-capacity ratio, v/c	0.73	
Density, D	26.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Mace Blvd On to Chiles Rd On
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,850	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,523	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,307	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,102	pcphpl
Average passenger-car speed, S	60.6	mph
Volume-to-capacity ratio, v/c	0.88	
Density, D	35.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Chiles Rd On to West Sac
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,980	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, v <sub>15</sub>	1,270	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, E <sub>T</sub>	1.5	
Recreational vehicle PCE, E <sub>R</sub>	1.2	
Heavy vehicle adjustment, f <sub>HV</sub>	0.966	
Driver population factor, f <sub>p</sub>	1.00	
Flow rate, v <sub>p</sub>	5,259	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, f <sub>LW</sub>		mph
Lateral clearance adjustment, f <sub>LC</sub>		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, v <sub>p</sub>	1,753	pcphpl
Average passenger-car speed, S	66.5	mph
Volume-to-capacity ratio, v/c	0.73	
Density, D	26.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Hutchinson Dr Off to Russell Blvd On
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,390	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	931	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,837	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,279	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.0	pcmpl
Level of service, LOS	B	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Russell Blvd On to Covell Blvd Off
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,570	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	706	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,909	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,454	pcphpl
Average passenger-car speed, S	69.2	mph
Volume-to-capacity ratio, $v/c$	0.61	
Density, D	21.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Covell Blvd On to County Rd 29
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,150	vph
Peak-hour factor, PHF	0.89	
Peak 15-min volume, $v_{15}$	323	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,337	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	669	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.28	
Density, D	10.0	pcpmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	County Rd 29 to County Rd 27
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,250	vph
Peak-hour factor, PHF	0.86	
Peak 15-min volume, $v_{15}$	363	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,512	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	756	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.31	
Density, D	11.0	pcpmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	I-80 West Sac to Chiles Rd
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	7,120	vph
Peak-hour factor, PHF	1.00	
Peak 15-min volume, $v_{15}$	1,780	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,369	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,456	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.02	
Density, D	-	pcpmp
Level of service, LOS	F	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Chiles Rd to Mace Blvd
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,750	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,758	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,277	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,426	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.01	
Density, D	-	pcpmp
Level of service, LOS	F	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Mace Blvd To Olive Dr Off
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,840	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,781	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,374	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,458	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.02	
Density, D	-	pcpmppl
Level of service, LOS	F	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Richardson Blvd On to Old Davis Rd Off
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,180	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	1,698	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,995	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,749	pcphpl
Average passenger-car speed, S	66.5	mph
Volume-to-capacity ratio, v/c	0.73	
Density, D	26.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	SR 113 County Rd 27 to County Rd 29
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,700	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	1,016	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	4,208	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,104	pcphpl
Average passenger-car speed, S	60.5	mph
Volume-to-capacity ratio, v/c	0.88	
Density, D	35.0	pcpmpl
Level of service, LOS	D	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	County Rd 29 to Covell
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,760	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, v <sub>15</sub>	784	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, E <sub>T</sub>	1.5	
Recreational vehicle PCE, E <sub>R</sub>	1.2	
Heavy vehicle adjustment, f <sub>HV</sub>	0.971	
Driver population factor, f <sub>p</sub>	1.00	
Flow rate, v <sub>p</sub>	3,230	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, f <sub>LW</sub>		mph
Lateral clearance adjustment, f <sub>LC</sub>		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, v <sub>p</sub>	1,615	pcphpl
Average passenger-car speed, S	68.0	mph
Volume-to-capacity ratio, v/c	0.67	
Density, D	24.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Covell Blvd to Russell Blvd
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,430	vph
Peak-hour factor, PHF	0.81	
Peak 15-min volume, $v_{15}$	750	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,090	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,545	pcphpl
Average passenger-car speed, S	68.6	mph
Volume-to-capacity ratio, $v/c$	0.64	
Density, D	23.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Russell Blvd to Hutchinson Dr
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,250	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	838	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,434	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,717	pcphpl
Average passenger-car speed, S	66.9	mph
Volume-to-capacity ratio, v/c	0.72	
Density, D	26.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	I-80 SR 113 Split to Kidwell Rd
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,790	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,235	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,111	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,278	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	I-80 to SR 113 Jct.
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,740	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,234	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,110	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.33	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.1	mph
Calculated free-flow speed, FFS	71.3	mph
Measured free-flow speed, FFS	70.0	mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,022	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.43	
Density, D	15.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	SR 113 Split On to Richards Blvd Off
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,800	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,735	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,182	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.50	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.5	mph
Calculated free-flow speed, FFS	70.9	mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,795	pcphpl
Average passenger-car speed, S	65.9	mph
Volume-to-capacity ratio, v/c	0.75	
Density, D	27.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Richards Blvd On to Mace Blvd Off
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	0	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	0	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	0	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	0	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.00	
Density, D	0.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Mace Blvd On to Chiles Rd On
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	8,080	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	2,082	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	8,621	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,874	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.20	
Density, D	-	pcpmp
Level of service, LOS	F	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Chiles Rd On to West Sac
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	7,800	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,990	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	8,238	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,746	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.14	
Density, D	-	pcpmp
Level of service, LOS	F	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Hutchinson Dr Off to Russell Blvd On
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,320	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	874	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,600	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,200	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.50	
Density, D	17.0	pcmppl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Russell Blvd On to Covell Blvd Off
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,750	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	724	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,982	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,491	pcphpl
Average passenger-car speed, S	69.0	mph
Volume-to-capacity ratio, v/c	0.62	
Density, D	22.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Covell Blvd On to County Rd 29
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,460	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, v <sub>15</sub>	676	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, E <sub>T</sub>	1.5	
Recreational vehicle PCE, E <sub>R</sub>	1.2	
Heavy vehicle adjustment, f <sub>HV</sub>	0.966	
Driver population factor, f <sub>P</sub>	1.00	
Flow rate, v <sub>p</sub>	2,798	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, f <sub>LW</sub>		mph
Lateral clearance adjustment, f <sub>LC</sub>		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, v <sub>p</sub>	1,399	pcphpl
Average passenger-car speed, S	69.5	mph
Volume-to-capacity ratio, v/c	0.58	
Density, D	20.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	County Rd 29 to County Rd 27
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,960	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	841	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,498	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,749	pcphpl
Average passenger-car speed, S	66.5	mph
Volume-to-capacity ratio, v/c	0.73	
Density, D	26.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	I-80 West Sac to Chiles Rd
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,810	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,482	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,136	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,045	pcphpl
Average passenger-car speed, S	61.7	mph
Volume-to-capacity ratio, v/c	0.85	
Density, D	33.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Chiles Rd to Mace Blvd
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,540	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, v <sub>15</sub>	1,413	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, E <sub>T</sub>	1.5	
Recreational vehicle PCE, E <sub>R</sub>	1.2	
Heavy vehicle adjustment, f <sub>HV</sub>	0.966	
Driver population factor, f <sub>p</sub>	1.00	
Flow rate, v <sub>p</sub>	5,851	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, f <sub>LW</sub>		mph
Lateral clearance adjustment, f <sub>LC</sub>		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, v <sub>p</sub>	1,950	pcphpl
Average passenger-car speed, S	63.5	mph
Volume-to-capacity ratio, v/c	0.81	
Density, D	31.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Mace Blvd To Olive Dr Off
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,600	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,429	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,914	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,971	pcphpl
Average passenger-car speed, S	63.1	mph
Volume-to-capacity ratio, v/c	0.82	
Density, D	31.0	pcpmpl
Level of service, LOS	D	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Richardson Blvd On to Old Davis Rd Off
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,060	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	1,647	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,785	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,262	pcphpl
Average passenger-car speed, S	56.9	mph
Volume-to-capacity ratio, v/c	0.94	
Density, D	40.0	pcmpl
Level of service, LOS	E	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	SR 113 County Rd 27 to County Rd 29
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,420	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	658	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,723	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,361	pcphpl
Average passenger-car speed, S	69.7	mph
Volume-to-capacity ratio, $v/c$	0.57	
Density, D	20.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	County Rd 29 to Covell
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,500	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	679	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,799	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,399	pcphpl
Average passenger-car speed, S	69.5	mph
Volume-to-capacity ratio, v/c	0.58	
Density, D	20.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Covell Blvd to Russell Blvd
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,870	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	732	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,016	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,508	pcphpl
Average passenger-car speed, S	68.9	mph
Volume-to-capacity ratio, $v/c$	0.63	
Density, D	22.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Russell Blvd to Hutchinson Dr
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,450	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	918	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,762	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,254	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.52	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	I-80 SR 113 Split to Kidwell Rd
Alternative	Cumulative Plus Nishi, MRIC Mix, DIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,100	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v <sub>15</sub>	1,622	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, E <sub>T</sub>	1.5	
Recreational vehicle PCE, E <sub>R</sub>	1.2	
Heavy vehicle adjustment, f <sub>HV</sub>	0.966	
Driver population factor, f <sub>p</sub>	1.00	
Flow rate, v <sub>p</sub>	6,716	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, f <sub>LW</sub>		mph
Lateral clearance adjustment, f <sub>LC</sub>		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, v <sub>p</sub>	1,679	pcphpl
Average passenger-car speed, S	67.3	mph
Volume-to-capacity ratio, v/c	0.70	
Density, D	25.0	pcpmpl
Level of service, LOS	C	

**J.6.G – MODIFIED CUMULATIVE NO PROJECT**



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	I-80 to SR 113 Jct.
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,450	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	1,264	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,234	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,047	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.44	
Density, D	15.0	pcpmpl
Level of service, LOS	B	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	SR 113 Split On to Richards Blvd Off
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,650	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	1,487	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,156	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,539	pcphpl
Average passenger-car speed, S	68.7	mph
Volume-to-capacity ratio, v/c	0.64	
Density, D	22.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Richards Blvd On to Mace Blvd Off
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,900	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,250	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,175	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,725	pcphpl
Average passenger-car speed, S	66.8	mph
Volume-to-capacity ratio, $v/c$	0.72	
Density, D	26.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Mace Blvd On to Chiles Rd On
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,550	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,445	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,984	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,995	pcphpl
Average passenger-car speed, S	62.7	mph
Volume-to-capacity ratio, v/c	0.83	
Density, D	32.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Chiles Rd On to West Sac
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,680	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, v <sub>15</sub>	1,194	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, E <sub>T</sub>	1.5	
Recreational vehicle PCE, E <sub>R</sub>	1.2	
Heavy vehicle adjustment, f <sub>HV</sub>	0.966	
Driver population factor, f <sub>p</sub>	1.00	
Flow rate, v <sub>p</sub>	4,943	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, f <sub>LW</sub>		mph
Lateral clearance adjustment, f <sub>LC</sub>		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, v <sub>p</sub>	1,648	pcphpl
Average passenger-car speed, S	67.7	mph
Volume-to-capacity ratio, v/c	0.69	
Density, D	24.0	pcmppl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Hutchinson Dr Off to Russell Blvd On
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,300	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	632	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,603	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	868	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.36	
Density, D	12.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Russell Blvd On to Covell Blvd Off
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,590	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	437	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,800	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	900	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.37	
Density, D	13.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Covell Blvd On to County Rd 29
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,040	vph
Peak-hour factor, PHF	0.89	
Peak 15-min volume, $v_{15}$	292	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,209	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	605	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.25	
Density, D	9.0	pcmppl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	County Rd 29 to County Rd 27
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,110	vph
Peak-hour factor, PHF	0.86	
Peak 15-min volume, $v_{15}$	323	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,342	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	671	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.28	
Density, D	10.0	pcpmpl
Level of service, LOS	A	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	I-80 West Sac to Chiles Rd
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,370	vph
Peak-hour factor, PHF	1.00	
Peak 15-min volume, $v_{15}$	1,343	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,558	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,853	pcphpl
Average passenger-car speed, S	65.1	mph
Volume-to-capacity ratio, v/c	0.77	
Density, D	28.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Chiles Rd to Mace Blvd
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,990	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,299	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,380	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,793	pcphpl
Average passenger-car speed, S	65.9	mph
Volume-to-capacity ratio, v/c	0.75	
Density, D	27.0	pcmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Mace Blvd To Olive Dr Off
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,930	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, v <sub>15</sub>	1,544	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, E <sub>T</sub>	1.5	
Recreational vehicle PCE, E <sub>R</sub>	1.2	
Heavy vehicle adjustment, f <sub>HV</sub>	0.966	
Driver population factor, f <sub>p</sub>	1.00	
Flow rate, v <sub>p</sub>	6,393	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, f <sub>LW</sub>		mph
Lateral clearance adjustment, f <sub>LC</sub>		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, v <sub>p</sub>	2,131	pcphpl
Average passenger-car speed, S	59.9	mph
Volume-to-capacity ratio, v/c	0.89	
Density, D	36.0	pcmpl
Level of service, LOS	E	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Richardson Blvd On to Old Davis Rd Off
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,410	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	1,486	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,123	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,531	pcphpl
Average passenger-car speed, S	68.7	mph
Volume-to-capacity ratio, v/c	0.64	
Density, D	22.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	SR 113 County Rd 27 to County Rd 29
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,710	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	745	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,082	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,541	pcphpl
Average passenger-car speed, S	68.7	mph
Volume-to-capacity ratio, v/c	0.64	
Density, D	22.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	County Rd 29 to Covell
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,570	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	730	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,008	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,504	pcphpl
Average passenger-car speed, S	68.9	mph
Volume-to-capacity ratio, v/c	0.63	
Density, D	22.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Covell Blvd to Russell Blvd
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,470	vph
Peak-hour factor, PHF	0.81	
Peak 15-min volume, $v_{15}$	762	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,141	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,570	pcphpl
Average passenger-car speed, S	68.4	mph
Volume-to-capacity ratio, $v/c$	0.65	
Density, D	23.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Russell Blvd to Hutchinson Dr
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,240	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	835	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,424	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,712	pcphpl
Average passenger-car speed, S	67.0	mph
Volume-to-capacity ratio, v/c	0.71	
Density, D	26.0	pcmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	I-80 SR 113 Split to Kidwell Rd
Alternative	Cumulative Plus Nishi
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,750	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,224	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,068	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,267	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	I-80 to SR 113 Jct.
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,640	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,208	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,003	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.33	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.1	mph
Calculated free-flow speed, FFS	71.3	mph
Measured free-flow speed, FFS	70.0	mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,001	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.42	
Density, D	14.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	SR 113 Split On to Richards Blvd Off
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,150	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,569	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,495	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.50	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.5	mph
Calculated free-flow speed, FFS	70.9	mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,624	pcphpl
Average passenger-car speed, S	67.9	mph
Volume-to-capacity ratio, v/c	0.68	
Density, D	24.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Richards Blvd On to Mace Blvd Off
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,630	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,436	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,946	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,982	pcphpl
Average passenger-car speed, S	62.9	mph
Volume-to-capacity ratio, v/c	0.83	
Density, D	32.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Mace Blvd On to Chiles Rd On
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,520	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,680	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,957	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,319	pcphpl
Average passenger-car speed, S	55.5	mph
Volume-to-capacity ratio, v/c	0.97	
Density, D	42.0	pcpmpl
Level of service, LOS	E	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Chiles Rd On to West Sac
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,240	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,592	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,590	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,197	pcphpl
Average passenger-car speed, S	58.5	mph
Volume-to-capacity ratio, v/c	0.92	
Density, D	38.0	pcpmpl
Level of service, LOS	E	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Hutchinson Dr Off to Russell Blvd On
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,220	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	847	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,491	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,164	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.48	
Density, D	17.0	pcmppl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Russell Blvd On to Covell Blvd Off
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,660	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	700	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,884	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,442	pcphpl
Average passenger-car speed, S	69.3	mph
Volume-to-capacity ratio, v/c	0.60	
Density, D	21.0	pcmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Covell Blvd On to County Rd 29
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,250	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	618	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,559	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,280	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.0	pcmppl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	County Rd 29 to County Rd 27
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,110	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	599	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,494	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,247	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.52	
Density, D	18.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	I-80 West Sac to Chiles Rd
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,410	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,380	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,714	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,905	pcphpl
Average passenger-car speed, S	64.2	mph
Volume-to-capacity ratio, v/c	0.79	
Density, D	30.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Chiles Rd to Mace Blvd
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,150	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,314	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,439	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,813	pcphpl
Average passenger-car speed, S	65.6	mph
Volume-to-capacity ratio, v/c	0.76	
Density, D	28.0	pcmppl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Mace Blvd To Olive Dr Off
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,430	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,385	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,735	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,912	pcphpl
Average passenger-car speed, S	64.1	mph
Volume-to-capacity ratio, v/c	0.80	
Density, D	30.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Richardson Blvd On to Old Davis Rd Off
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,970	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	1,622	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,684	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,228	pcphpl
Average passenger-car speed, S	57.7	mph
Volume-to-capacity ratio, v/c	0.93	
Density, D	39.0	pcmppl
Level of service, LOS	E	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	SR 113 County Rd 27 to County Rd 29
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,250	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	611	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,531	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,266	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	County Rd 29 to Covell
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,280	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	620	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,553	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,276	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.0	pcmppl
Level of service, LOS	B	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Covell Blvd to Russell Blvd
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,100	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	536	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,207	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,104	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.46	
Density, D	16.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Russell Blvd to Hutchinson Dr
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,480	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	660	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,704	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	901	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.38	
Density, D	13.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	I-80 SR 113 Split to Kidwell Rd
Alternative	Cumulative Plus Nishi
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,600	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	1,489	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,166	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,541	pcphpl
Average passenger-car speed, S	68.6	mph
Volume-to-capacity ratio, v/c	0.64	
Density, D	22.0	pcmpl
Level of service, LOS	C	

**J.6.H – MODIFIED CUMULATIVE PLUS PROJECT**



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	I-80 to SR 113 Jct.
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,600	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	1,307	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,410	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,082	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.45	
Density, D	15.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	SR 113 Split On to Richards Blvd Off
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,800	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v <sub>15</sub>	1,526	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, E <sub>T</sub>	1.5	
Recreational vehicle PCE, E <sub>R</sub>	1.2	
Heavy vehicle adjustment, f <sub>HV</sub>	0.966	
Driver population factor, f <sub>P</sub>	1.00	
Flow rate, v <sub>p</sub>	6,319	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, f <sub>LW</sub>		mph
Lateral clearance adjustment, f <sub>LC</sub>		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, v <sub>p</sub>	1,580	pcphpl
Average passenger-car speed, S	68.3	mph
Volume-to-capacity ratio, v/c	0.66	
Density, D	23.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Richards Blvd On to Mace Blvd Off
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,080	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,296	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,365	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,788	pcphpl
Average passenger-car speed, S	66.0	mph
Volume-to-capacity ratio, v/c	0.75	
Density, D	27.0	pcmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Mace Blvd On to Chiles Rd On
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,670	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,477	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,113	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,038	pcphpl
Average passenger-car speed, S	61.9	mph
Volume-to-capacity ratio, v/c	0.85	
Density, D	33.0	pcpmpl
Level of service, LOS	D	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Chiles Rd On to West Sac
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,800	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,224	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,069	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,690	pcphpl
Average passenger-car speed, S	67.2	mph
Volume-to-capacity ratio, v/c	0.70	
Density, D	25.0	pcmppl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Hutchinson Dr Off to Russell Blvd On
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,470	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	679	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,796	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	932	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.39	
Density, D	13.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Russell Blvd On to Covell Blvd Off
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,710	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	470	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,935	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	968	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.40	
Density, D	14.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Covell Blvd On to County Rd 29
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,070	vph
Peak-hour factor, PHF	0.89	
Peak 15-min volume, $v_{15}$	301	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,244	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	622	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.26	
Density, D	9.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	County Rd 29 to County Rd 27
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,150	vph
Peak-hour factor, PHF	0.86	
Peak 15-min volume, $v_{15}$	334	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,391	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	695	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.29	
Density, D	10.0	pcmppl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	I-80 West Sac to Chiles Rd
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,100	vph
Peak-hour factor, PHF	1.00	
Peak 15-min volume, $v_{15}$	1,525	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,314	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,105	pcphpl
Average passenger-car speed, S	60.5	mph
Volume-to-capacity ratio, v/c	0.88	
Density, D	35.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Chiles Rd to Mace Blvd
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,720	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,490	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,167	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,056	pcphpl
Average passenger-car speed, S	61.5	mph
Volume-to-capacity ratio, v/c	0.86	
Density, D	33.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Mace Blvd To Olive Dr Off
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,050	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,576	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,523	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,174	pcphpl
Average passenger-car speed, S	59.0	mph
Volume-to-capacity ratio, v/c	0.91	
Density, D	37.0	pcpmpl
Level of service, LOS	E	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Richardson Blvd On to Old Davis Rd Off
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,530	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	1,519	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,259	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,565	pcphpl
Average passenger-car speed, S	68.5	mph
Volume-to-capacity ratio, v/c	0.65	
Density, D	23.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	SR 113 County Rd 27 to County Rd 29
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,950	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	810	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,355	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,678	pcphpl
Average passenger-car speed, S	67.4	mph
Volume-to-capacity ratio, v/c	0.70	
Density, D	25.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	County Rd 29 to Covell
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,630	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	747	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,078	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,539	pcphpl
Average passenger-car speed, S	68.7	mph
Volume-to-capacity ratio, v/c	0.64	
Density, D	22.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Covell Blvd to Russell Blvd
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,540	vph
Peak-hour factor, PHF	0.81	
Peak 15-min volume, v <sub>15</sub>	784	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, E <sub>T</sub>	1.5	
Recreational vehicle PCE, E <sub>R</sub>	1.2	
Heavy vehicle adjustment, f <sub>HV</sub>	0.971	
Driver population factor, f <sub>p</sub>	1.00	
Flow rate, v <sub>p</sub>	3,230	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, f <sub>LW</sub>		mph
Lateral clearance adjustment, f <sub>LC</sub>		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, v <sub>p</sub>	1,615	pcphpl
Average passenger-car speed, S	68.0	mph
Volume-to-capacity ratio, v/c	0.67	
Density, D	24.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Russell Blvd to Hutchinson Dr
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,440	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	887	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,635	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,818	pcphpl
Average passenger-car speed, S	65.6	mph
Volume-to-capacity ratio, v/c	0.76	
Density, D	28.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	I-80 SR 113 Split to Kidwell Rd
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,770	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,229	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,090	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,272	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	I-80 to SR 113 Jct.
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,680	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,219	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,046	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.33	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.1	mph
Calculated free-flow speed, FFS	71.3	mph
Measured free-flow speed, FFS	70.0	mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,009	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.42	
Density, D	14.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	SR 113 Split On to Richards Blvd Off
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,220	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,587	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,569	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.50	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.5	mph
Calculated free-flow speed, FFS	70.9	mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,642	pcphpl
Average passenger-car speed, S	67.7	mph
Volume-to-capacity ratio, v/c	0.68	
Density, D	24.0	pcpmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Richards Blvd On to Mace Blvd Off
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,800	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,480	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,126	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,042	pcphpl
Average passenger-car speed, S	61.8	mph
Volume-to-capacity ratio, v/c	0.85	
Density, D	33.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Mace Blvd On to Chiles Rd On
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	7,110	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,832	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,586	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,529	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.05	
Density, D	-	pcpmppl
Level of service, LOS	F	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Chiles Rd On to West Sac
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,830	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,742	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,213	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,404	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.00	
Density, D	-	pcpmppl
Level of service, LOS	F	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Hutchinson Dr Off to Russell Blvd On
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,330	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	876	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,610	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,203	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.50	
Density, D	17.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Russell Blvd On to Covell Blvd Off
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,710	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	713	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,938	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,469	pcphpl
Average passenger-car speed, S	69.2	mph
Volume-to-capacity ratio, v/c	0.61	
Density, D	21.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Covell Blvd On to County Rd 29
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,420	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	665	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,752	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,376	pcphpl
Average passenger-car speed, S	69.6	mph
Volume-to-capacity ratio, v/c	0.57	
Density, D	20.0	pcmppl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	County Rd 29 to County Rd 27
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,310	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	656	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,730	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,365	pcphpl
Average passenger-car speed, S	69.7	mph
Volume-to-capacity ratio, v/c	0.57	
Density, D	20.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	I-80 West Sac to Chiles Rd
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,550	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,416	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,861	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,954	pcphpl
Average passenger-car speed, S	63.4	mph
Volume-to-capacity ratio, v/c	0.81	
Density, D	31.0	pcpmpl
Level of service, LOS	D	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Chiles Rd to Mace Blvd
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,290	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,349	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,587	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,862	pcphpl
Average passenger-car speed, S	64.9	mph
Volume-to-capacity ratio, $v/c$	0.78	
Density, D	29.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Mace Blvd To Olive Dr Off
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,630	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,436	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,946	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,982	pcphpl
Average passenger-car speed, S	62.9	mph
Volume-to-capacity ratio, v/c	0.83	
Density, D	32.0	pcmppl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Richardson Blvd On to Old Davis Rd Off
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,070	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	1,649	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,796	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,265	pcphpl
Average passenger-car speed, S	56.8	mph
Volume-to-capacity ratio, v/c	0.94	
Density, D	40.0	pcmpl
Level of service, LOS	E	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	SR 113 County Rd 27 to County Rd 29
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,300	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	625	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,588	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,294	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, $v/c$	0.54	
Density, D	19.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	County Rd 29 to Covell
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,310	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	628	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,586	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,293	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.54	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Covell Blvd to Russell Blvd
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,230	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	569	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,344	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,172	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.49	
Density, D	17.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Russell Blvd to Hutchinson Dr
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,650	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	705	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,890	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	963	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.40	
Density, D	14.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	I-80 SR 113 Split to Kidwell Rd
Alternative	Cumulative Plus Nishi and MRIC
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,750	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v <sub>15</sub>	1,529	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, E <sub>T</sub>	1.5	
Recreational vehicle PCE, E <sub>R</sub>	1.2	
Heavy vehicle adjustment, f <sub>HV</sub>	0.966	
Driver population factor, f <sub>p</sub>	1.00	
Flow rate, v <sub>p</sub>	6,331	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, f <sub>LW</sub>		mph
Lateral clearance adjustment, f <sub>LC</sub>		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, v <sub>p</sub>	1,583	pcphpl
Average passenger-car speed, S	68.3	mph
Volume-to-capacity ratio, v/c	0.66	
Density, D	23.0	pcpmpl
Level of service, LOS	C	



**J.6.I – MODIFIED CUMULATIVE PLUS MIXED-USE ALTERNATIVE**



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	I-80 to SR 113 Jct.
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,550	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	1,293	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,351	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,070	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.45	
Density, D	15.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	SR 113 Split On to Richards Blvd Off
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,730	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	1,508	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,243	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,561	pcphpl
Average passenger-car speed, S	68.5	mph
Volume-to-capacity ratio, v/c	0.65	
Density, D	23.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Richards Blvd On to Mace Blvd Off
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,990	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,273	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,270	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,757	pcphpl
Average passenger-car speed, S	66.4	mph
Volume-to-capacity ratio, v/c	0.73	
Density, D	26.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Mace Blvd On to Chiles Rd On
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,640	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,469	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,081	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,027	pcphpl
Average passenger-car speed, S	62.1	mph
Volume-to-capacity ratio, v/c	0.84	
Density, D	33.0	pcmppl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Chiles Rd On to West Sac
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,770	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,217	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,038	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,679	pcphpl
Average passenger-car speed, S	67.3	mph
Volume-to-capacity ratio, v/c	0.70	
Density, D	25.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Hutchinson Dr Off to Russell Blvd On
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,360	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	648	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,671	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	890	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.37	
Density, D	13.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Russell Blvd On to Covell Blvd Off
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,640	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	451	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,856	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	928	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.39	
Density, D	13.0	pcmpl
Level of service, LOS	B	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Covell Blvd On to County Rd 29
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,060	vph
Peak-hour factor, PHF	0.89	
Peak 15-min volume, $v_{15}$	298	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,233	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	616	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.26	
Density, D	9.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	County Rd 29 to County Rd 27
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	1,140	vph
Peak-hour factor, PHF	0.86	
Peak 15-min volume, $v_{15}$	331	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	1,379	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	689	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.29	
Density, D	10.0	pcmpl
Level of service, LOS	A	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	I-80 West Sac to Chiles Rd
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,700	vph
Peak-hour factor, PHF	1.00	
Peak 15-min volume, $v_{15}$	1,425	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,900	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,967	pcphpl
Average passenger-car speed, S	63.2	mph
Volume-to-capacity ratio, v/c	0.82	
Density, D	31.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Chiles Rd to Mace Blvd
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,330	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,388	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,746	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,915	pcphpl
Average passenger-car speed, S	64.1	mph
Volume-to-capacity ratio, v/c	0.80	
Density, D	30.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Mace Blvd To Olive Dr Off
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,960	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,552	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,426	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,142	pcphpl
Average passenger-car speed, S	59.7	mph
Volume-to-capacity ratio, v/c	0.89	
Density, D	36.0	pcmpl
Level of service, LOS	E	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Richardson Blvd On to Old Davis Rd Off
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,430	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	1,492	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,146	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,537	pcphpl
Average passenger-car speed, S	68.7	mph
Volume-to-capacity ratio, $v/c$	0.64	
Density, D	22.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	SR 113 County Rd 27 to County Rd 29
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,830	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	777	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,219	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,609	pcphpl
Average passenger-car speed, S	68.1	mph
Volume-to-capacity ratio, $v/c$	0.67	
Density, D	24.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	County Rd 29 to Covell
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,600	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	739	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,043	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,522	pcphpl
Average passenger-car speed, S	68.8	mph
Volume-to-capacity ratio, v/c	0.63	
Density, D	22.0	pcpmpl
Level of service, LOS	C	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Covell Blvd to Russell Blvd
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,520	vph
Peak-hour factor, PHF	0.81	
Peak 15-min volume, $v_{15}$	778	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,204	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,602	pcphpl
Average passenger-car speed, S	68.1	mph
Volume-to-capacity ratio, $v/c$	0.67	
Density, D	24.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	Russell Blvd to Hutchinson Dr
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,360	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	866	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,551	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,775	pcphpl
Average passenger-car speed, S	66.2	mph
Volume-to-capacity ratio, v/c	0.74	
Density, D	27.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB & SR-113 SB
Segment	I-80 SR 113 Split to Kidwell Rd
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday AM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,770	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,229	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,090	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,272	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	I-80 to SR 113 Jct.
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	4,670	vph
Peak-hour factor, PHF	0.96	
Peak 15-min volume, $v_{15}$	1,216	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,035	pcph

Speed Inputs and Adjustments

Number of lanes, N	5	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.33	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.1	mph
Calculated free-flow speed, FFS	71.3	mph
Measured free-flow speed, FFS	70.0	mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,007	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.42	
Density, D	14.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	SR 113 Split On to Richards Blvd Off
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,140	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,566	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,485	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width	12.0	ft
Right-side lateral clearance	>6	ft
Total ramp density, TRD	1.50	ramps/mi
Lane width adjustment, $f_{LW}$	0.0	mph
Lateral clearance adjustment, $f_{LC}$	0.0	mph
TRD adjustment	4.5	mph
Calculated free-flow speed, FFS	70.9	mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,621	pcphpl
Average passenger-car speed, S	67.9	mph
Volume-to-capacity ratio, v/c	0.68	
Density, D	24.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Richards Blvd On to Mace Blvd Off
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,680	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,449	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,999	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,000	pcphpl
Average passenger-car speed, S	62.6	mph
Volume-to-capacity ratio, v/c	0.83	
Density, D	32.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Mace Blvd On to Chiles Rd On
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,840	vph
Peak-hour factor, PHF	0.97	
Peak 15-min volume, $v_{15}$	1,763	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	7,298	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,433	pcphpl
Average passenger-car speed, S	-	mph
Volume-to-capacity ratio, v/c	1.01	
Density, D	-	pcpmp
Level of service, LOS	F	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Chiles Rd On to West Sac
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,560	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,673	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,928	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,309	pcphpl
Average passenger-car speed, S	55.7	mph
Volume-to-capacity ratio, v/c	0.96	
Density, D	41.0	pcpmpl
Level of service, LOS	E	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Hutchinson Dr Off to Russell Blvd On
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	3,300	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	868	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	3,578	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,193	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.50	
Density, D	17.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Russell Blvd On to Covell Blvd Off
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,700	vph
Peak-hour factor, PHF	0.95	
Peak 15-min volume, $v_{15}$	711	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,927	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,464	pcphpl
Average passenger-car speed, S	69.2	mph
Volume-to-capacity ratio, v/c	0.61	
Density, D	21.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	Covell Blvd On to County Rd 29
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,350	vph
Peak-hour factor, PHF	0.91	
Peak 15-min volume, $v_{15}$	646	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,673	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,336	pcphpl
Average passenger-car speed, S	69.8	mph
Volume-to-capacity ratio, v/c	0.56	
Density, D	19.0	pcpmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 EB & SR-113 NB
Segment	County Rd 29 to County Rd 27
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,220	vph
Peak-hour factor, PHF	0.88	
Peak 15-min volume, $v_{15}$	631	veh
Trucks and buses	8%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.962	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,624	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,312	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.55	
Density, D	19.0	pcmpl
Level of service, LOS	C	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	I-80 West Sac to Chiles Rd
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,520	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,408	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,830	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,943	pcphpl
Average passenger-car speed, S	63.6	mph
Volume-to-capacity ratio, v/c	0.81	
Density, D	31.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Chiles Rd to Mace Blvd
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,250	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,339	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,545	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,848	pcphpl
Average passenger-car speed, S	65.1	mph
Volume-to-capacity ratio, $v/c$	0.77	
Density, D	28.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Mace Blvd To Olive Dr Off
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,540	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	1,413	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	5,851	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,950	pcphpl
Average passenger-car speed, S	63.5	mph
Volume-to-capacity ratio, v/c	0.81	
Density, D	31.0	pcpmpl
Level of service, LOS	D	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Richardson Blvd On to Old Davis Rd Off
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	6,030	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	1,639	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,751	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	2,250	pcphpl
Average passenger-car speed, S	57.2	mph
Volume-to-capacity ratio, v/c	0.94	
Density, D	39.0	pcmpl
Level of service, LOS	E	



HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	SR 113 County Rd 27 to County Rd 29
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,280	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	620	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,565	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,283	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.53	
Density, D	18.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	County Rd 29 to Covell
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,310	vph
Peak-hour factor, PHF	0.92	
Peak 15-min volume, $v_{15}$	628	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,586	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph	#VALUE!	pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,293	pcphpl
Average passenger-car speed, S	69.9	mph
Volume-to-capacity ratio, v/c	0.54	
Density, D	18.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Covell Blvd to Russell Blvd
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,180	vph
Peak-hour factor, PHF	0.98	
Peak 15-min volume, $v_{15}$	556	veh
Trucks and buses	6%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.971	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,291	pcph

Speed Inputs and Adjustments

Number of lanes, N	2	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,146	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, v/c	0.48	
Density, D	16.0	pcmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	Russell Blvd to Hutchinson Dr
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	2,610	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	694	veh
Trucks and buses	5%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.976	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	2,846	pcph

Speed Inputs and Adjustments

Number of lanes, N	3	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph		pcph	

LOS and Performance Measures

Flow rate, $v_p$	949	pcphpl
Average passenger-car speed, S	70.0	mph
Volume-to-capacity ratio, $v/c$	0.40	
Density, D	14.0	pcpmpl
Level of service, LOS	B	

HCM 2010: Freeway Basic Segment

Basic Operational Analysis

Project	Davis EIRs
Freeway	I-80 WB &SR-113 SB
Segment	I-80 SR 113 Split to Kidwell Rd
Alternative	Cumulative Plus Nishi and MRIC Mix
Time period	Weekday PM Peak Hour

Flow Inputs and Adjustments

Volume, V	5,700	vph
Peak-hour factor, PHF	0.94	
Peak 15-min volume, $v_{15}$	1,516	veh
Trucks and buses	7%	
Recreational vehicles	0%	
Terrain type	Level	
Grade		
Length		mi
Trucks and buses PCE, $E_T$	1.5	
Recreational vehicle PCE, $E_R$	1.2	
Heavy vehicle adjustment, $f_{HV}$	0.966	
Driver population factor, $f_p$	1.00	
Flow rate, $v_p$	6,276	pcph

Speed Inputs and Adjustments

Number of lanes, N	4	
Lane width		ft
Right-side lateral clearance		ft
Total ramp density, TRD		ramps/mi
Lane width adjustment, $f_{LW}$		mph
Lateral clearance adjustment, $f_{LC}$		mph
TRD adjustment		mph
Calculated free-flow speed, FFS		mph
Measured free-flow speed, FFS		mph
Free-flow speed curve	70	mph

Capacity Checks for Segments with Ramps

	Actual		Maximum		Violation?
Entering freeway volume		pcph		pcph	
Exiting freeway volume		pcph		pcph	
On-ramp volume		pcph		pcph	
Off-ramp volume		pcph	#VALUE!	pcph	

LOS and Performance Measures

Flow rate, $v_p$	1,569	pcphpl
Average passenger-car speed, S	68.4	mph
Volume-to-capacity ratio, v/c	0.65	
Density, D	23.0	pcpmpl
Level of service, LOS	C	