

**APPENDIX A – TRAFFIC COUNTS**

Counts Unlimited  
 PO Box 1178  
 Corona, CA 92878  
 (951) 268-6268

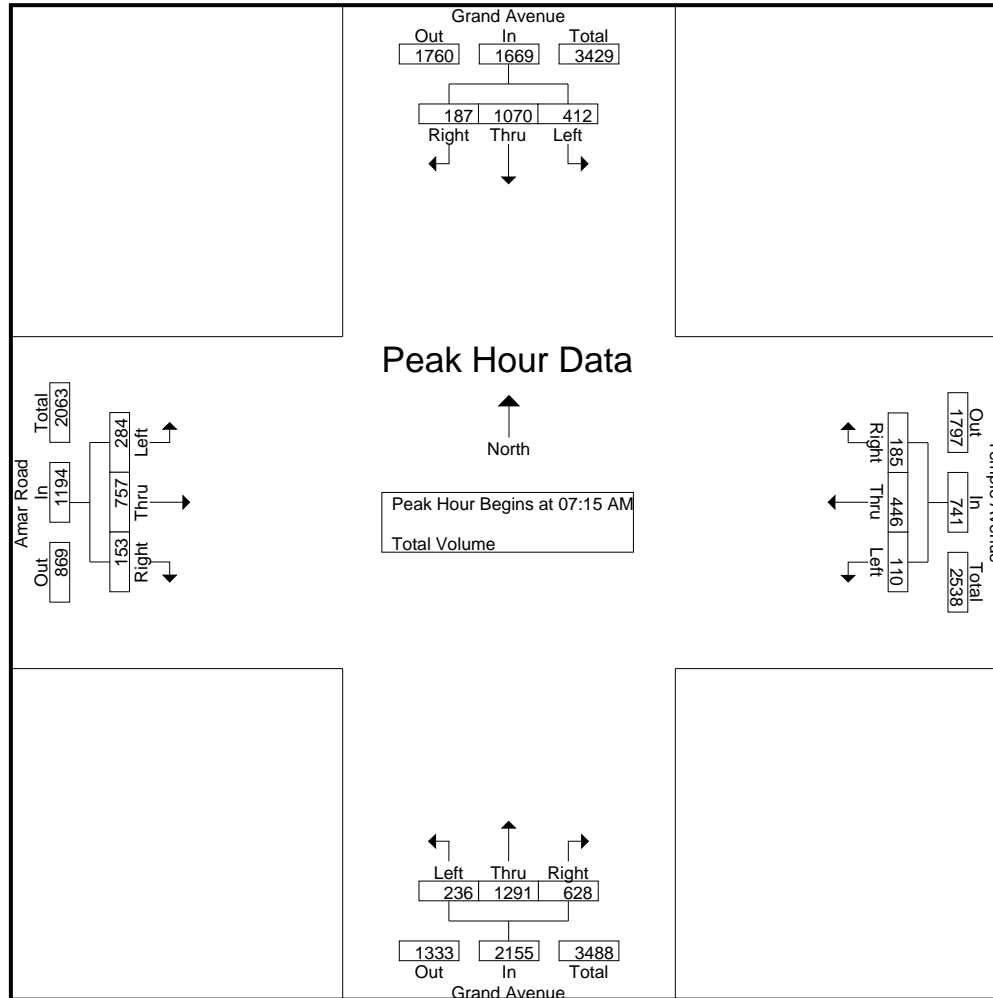
City of Walnut  
 N/S: Grand Avenue  
 E/W: Temple Avenue  
 Weather: Clear

File Name : WNTGRTEAM  
 Site Code : 04215551  
 Start Date : 10/1/2015  
 Page No : 1

Groups Printed- Total Volume

Start Time	Grand Avenue Southbound					Temple Avenue Westbound					Grand Avenue Northbound					Amar Road Eastbound					Int. Total
	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	
07:00 AM	100	292	42	0	434	15	152	62	0	229	38	195	130	0	363	63	132	38	0	233	1259
07:15 AM	83	290	37	0	410	25	165	40	0	230	65	289	158	0	512	61	202	47	0	310	1462
07:30 AM	116	267	47	0	430	22	84	56	0	162	58	339	188	0	585	85	192	38	0	315	1492
07:45 AM	111	251	42	0	404	29	92	41	0	162	52	398	165	0	615	72	189	24	0	285	1466
Total	410	1100	168	0	1678	91	493	199	0	783	213	1221	641	0	2075	281	715	147	0	1143	5679
08:00 AM	102	262	61	0	425	34	105	48	0	187	61	265	117	0	443	66	174	44	0	284	1339
08:15 AM	75	238	65	0	378	27	110	42	0	179	113	266	115	0	494	67	134	62	1	264	1315
08:30 AM	72	284	57	0	413	30	78	48	0	156	47	189	89	0	325	79	130	68	0	277	1171
08:45 AM	50	243	35	0	328	18	56	28	0	102	44	190	78	0	312	72	111	47	0	230	972
Total	299	1027	218	0	1544	109	349	166	0	624	265	910	399	0	1574	284	549	221	1	1055	4797
Grand Total	709	2127	386	0	3222	200	842	365	0	1407	478	2131	1040	0	3649	565	1264	368	1	2198	10476
Apprch %	22	66	12	0		14.2	59.8	25.9	0		13.1	58.4	28.5	0		25.7	57.5	16.7	0		
Total %	6.8	20.3	3.7	0	30.8	1.9	8	3.5	0	13.4	4.6	20.3	9.9	0	34.8	5.4	12.1	3.5	0	21	

Start Time	Grand Avenue Southbound				Temple Avenue Westbound				Grand Avenue Northbound				Amar Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	83	<b>290</b>	37	410	25	<b>165</b>	40	<b>230</b>	65	289	158	512	61	<b>202</b>	<b>47</b>	310	1462
07:30 AM	<b>116</b>	267	47	<b>430</b>	22	84	<b>56</b>	162	58	339	<b>188</b>	585	<b>85</b>	192	38	<b>315</b>	<b>1492</b>
07:45 AM	111	251	42	404	29	92	41	162	52	<b>398</b>	165	<b>615</b>	72	189	24	285	1466
08:00 AM	102	262	<b>61</b>	425	<b>34</b>	105	48	187	61	265	117	443	66	174	44	284	1339
Total Volume	412	1070	187	1669	110	446	185	741	236	1291	628	2155	284	757	153	1194	5759
% App. Total	24.7	64.1	11.2		14.8	60.2	25		11	59.9	29.1		23.8	63.4	12.8		
PHF	.888	.922	.766	.970	.809	.676	.826	.805	.908	.811	.835	.876	.835	.937	.814	.948	.965



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City of Walnut  
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File Name : WNTGRTEAM  
 Site Code : 04215551  
 Start Date : 10/1/2015  
 Page No : 3

Start Time	Grand Avenue Southbound				Temple Avenue Westbound				Grand Avenue Northbound				Amar Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:15 AM				07:15 AM			
+0 mins.	100	<b>292</b>	42	<b>434</b>	15	152	<b>62</b>	229	<b>65</b>	289	158	512	61	<b>202</b>	<b>47</b>	310
+15 mins.	83	290	37	410	25	<b>165</b>	40	<b>230</b>	58	339	<b>188</b>	585	<b>85</b>	192	38	<b>315</b>
+30 mins.	<b>116</b>	267	<b>47</b>	430	22	84	56	162	52	<b>398</b>	165	<b>615</b>	72	189	24	285
+45 mins.	111	251	42	404	<b>29</b>	92	41	162	61	265	117	443	66	174	44	284
Total Volume	410	1100	168	1678	91	493	199	783	236	1291	628	2155	284	757	153	1194
% App. Total	24.4	65.6	10		11.6	63	25.4		11	59.9	29.1		23.8	63.4	12.8	
PHF	.884	.942	.894	.967	.784	.747	.802	.851	.908	.811	.835	.876	.835	.937	.814	.948

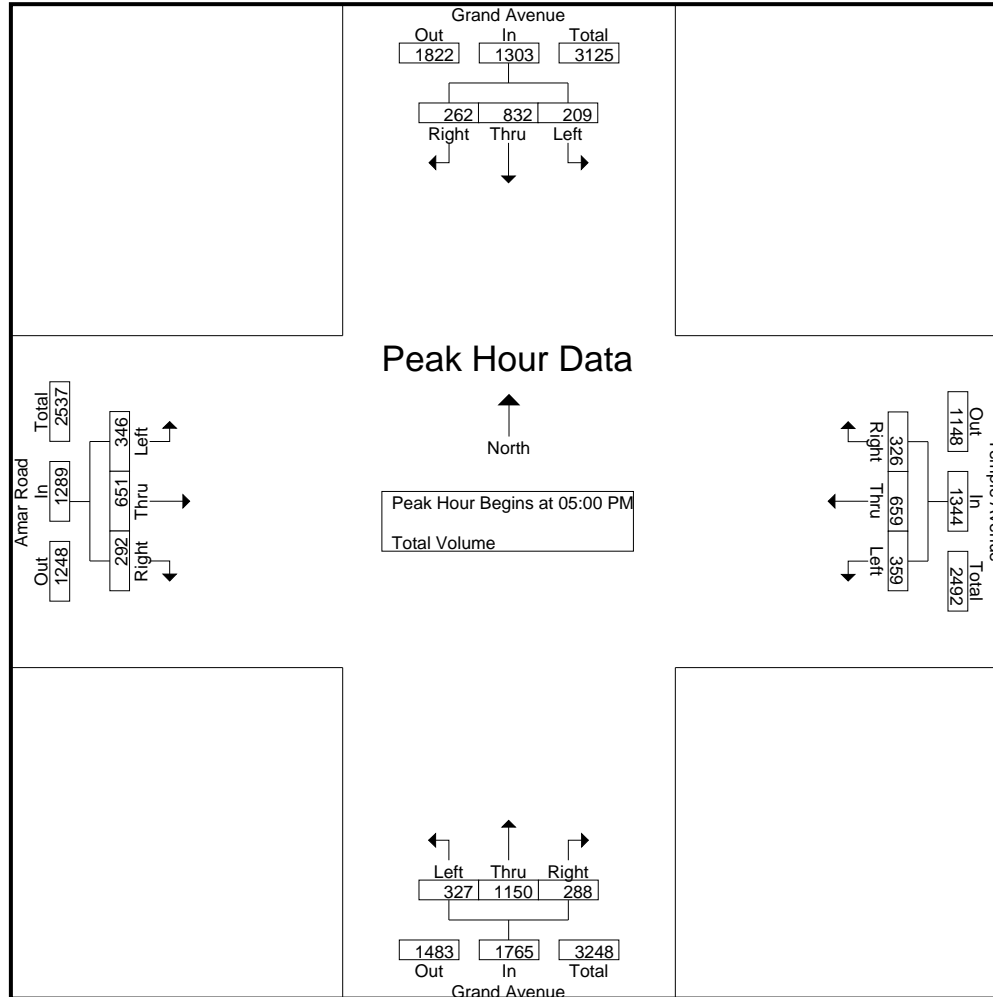
City of Walnut  
 N/S: Grand Avenue  
 E/W: Temple Avenue  
 Weather: Clear

File Name : WNTGRTEPM  
 Site Code : 04215551  
 Start Date : 10/1/2015  
 Page No : 1

Groups Printed- Total Volume

Start Time	Grand Avenue Southbound					Temple Avenue Westbound					Grand Avenue Northbound					Amar Road Eastbound					Int. Total
	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	
04:00 PM	61	188	50	0	299	64	112	60	0	236	62	183	74	0	319	93	134	75	0	302	1156
04:15 PM	80	206	46	0	332	86	118	71	0	275	53	228	100	0	381	71	161	88	0	320	1308
04:30 PM	84	256	73	0	413	97	147	62	0	306	47	233	56	0	336	72	149	67	2	290	1345
04:45 PM	73	204	71	0	348	89	160	57	1	307	59	266	79	0	404	71	171	68	0	310	1369
Total	298	854	240	0	1392	336	537	250	1	1124	221	910	309	0	1440	307	615	298	2	1222	5178
05:00 PM	57	230	72	0	359	98	138	75	0	311	73	238	60	0	371	94	159	74	1	328	1369
05:15 PM	50	192	50	1	293	85	157	70	0	312	91	330	79	0	500	86	165	62	0	313	1418
05:30 PM	52	206	73	0	331	99	178	95	0	372	76	293	68	0	437	91	153	81	0	325	1465
05:45 PM	50	204	67	1	322	77	186	86	1	350	87	289	81	0	457	75	174	75	0	324	1453
Total	209	832	262	2	1305	359	659	326	1	1345	327	1150	288	0	1765	346	651	292	1	1290	5705
Grand Total	507	1686	502	2	2697	695	1196	576	2	2469	548	2060	597	0	3205	653	1266	590	3	2512	10883
Apprch %	18.8	62.5	18.6	0.1		28.1	48.4	23.3	0.1		17.1	64.3	18.6	0		26	50.4	23.5	0.1		
Total %	4.7	15.5	4.6	0	24.8	6.4	11	5.3	0	22.7	5	18.9	5.5	0	29.4	6	11.6	5.4	0	23.1	

Start Time	Grand Avenue Southbound				Temple Avenue Westbound				Grand Avenue Northbound				Amar Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	<b>57</b>	<b>230</b>	72	<b>359</b>	98	138	75	311	73	238	60	371	<b>94</b>	159	74	<b>327</b>	1368
05:15 PM	50	192	50	292	85	157	70	312	<b>91</b>	<b>330</b>	79	<b>500</b>	86	165	62	313	1417
05:30 PM	52	206	<b>73</b>	331	<b>99</b>	178	<b>95</b>	<b>372</b>	76	293	68	437	91	153	<b>81</b>	325	<b>1465</b>
05:45 PM	50	204	67	321	77	<b>186</b>	86	349	87	289	<b>81</b>	457	75	<b>174</b>	75	324	1451
Total Volume	209	832	262	1303	359	659	326	1344	327	1150	288	1765	346	651	292	1289	5701
% App. Total	16	63.9	20.1		26.7	49	24.3		18.5	65.2	16.3		26.8	50.5	22.7		
PHF	.917	.904	.897	.907	.907	.886	.858	.903	.898	.871	.889	.883	.920	.935	.901	.985	.973



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	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:15 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	80	206	46	332	98	138	75	311	73	238	60	371	<b>94</b>	159	74	<b>327</b>
+15 mins.	<b>84</b>	<b>256</b>	<b>73</b>	<b>413</b>	85	157	70	312	<b>91</b>	<b>330</b>	79	<b>500</b>	86	165	62	313
+30 mins.	73	204	71	348	<b>99</b>	178	<b>95</b>	<b>372</b>	76	293	68	437	91	153	<b>81</b>	325
+45 mins.	57	230	72	359	77	<b>186</b>	86	349	87	289	<b>81</b>	457	75	<b>174</b>	75	324
Total Volume	294	896	262	1452	359	659	326	1344	327	1150	288	1765	346	651	292	1289
% App. Total	20.2	61.7	18		26.7	49	24.3		18.5	65.2	16.3		26.8	50.5	22.7	
PHF	.875	.875	.897	.879	.907	.886	.858	.903	.898	.871	.889	.883	.920	.935	.901	.985

City of Walnut  
 N/S: Bonita Avenue  
 E/W: Temple Avenue  
 Weather: Clear

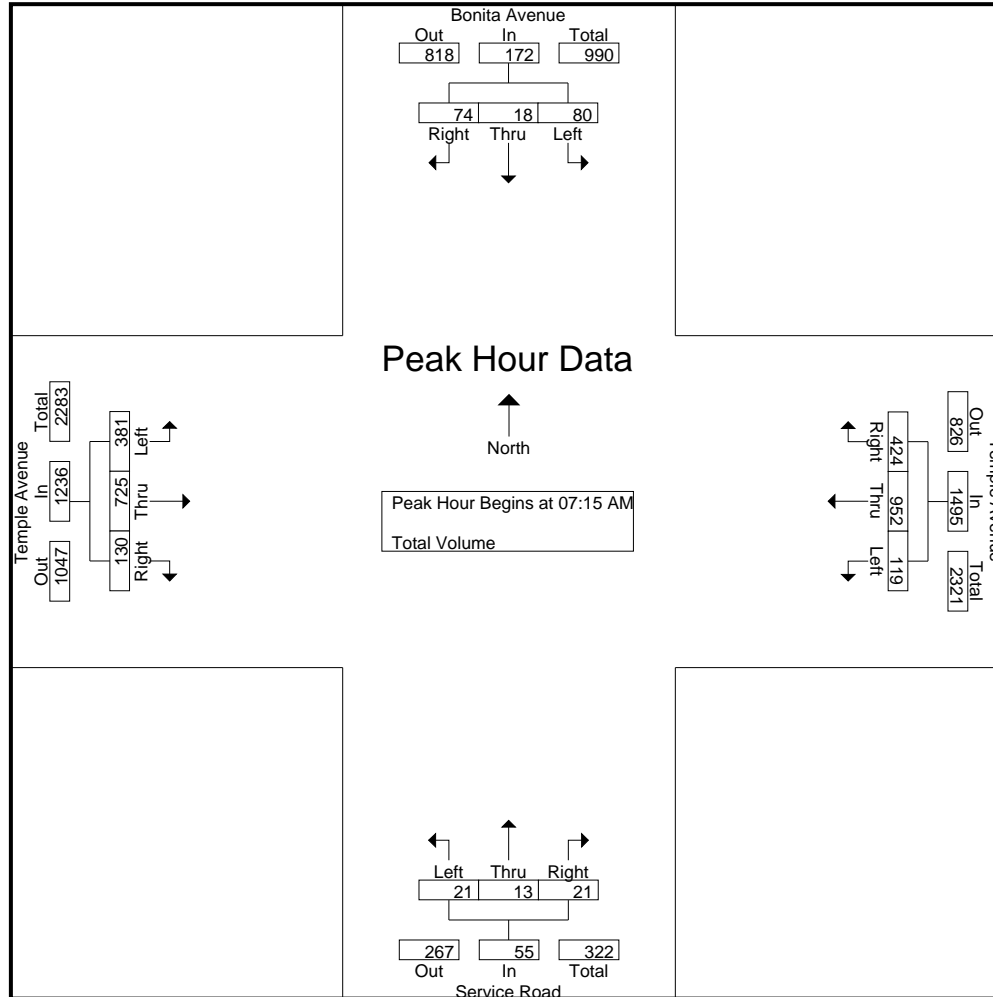
File Name : WNTBOTEAM  
 Site Code : 04215551  
 Start Date : 10/1/2015  
 Page No : 1

Groups Printed- Total Volume

Start Time	Bonita Avenue Southbound					Temple Avenue Westbound					Service Road Northbound					Temple Avenue Eastbound					Int. Total
	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	
07:00 AM	4	3	4	0	11	25	386	76	0	487	7	2	1	0	10	27	135	16	0	178	686
07:15 AM	9	3	13	0	25	24	291	82	0	397	3	5	17	0	25	60	207	30	0	297	744
07:30 AM	23	5	13	0	41	42	224	83	0	349	7	2	2	0	11	84	187	30	0	301	702
07:45 AM	33	8	28	0	69	22	208	124	0	354	4	3	0	0	7	104	158	31	0	293	723
Total	69	19	58	0	146	113	1109	365	0	1587	21	12	20	0	53	275	687	107	0	1069	2855
08:00 AM	15	2	20	0	37	31	229	135	0	395	7	3	2	0	12	133	173	39	0	345	789
08:15 AM	20	9	24	0	53	27	202	111	0	340	4	2	1	0	7	103	151	28	0	282	682
08:30 AM	13	7	21	0	41	15	160	58	0	233	4	5	6	0	15	68	146	16	0	230	519
08:45 AM	17	7	8	0	32	28	116	53	0	197	6	1	3	0	10	48	116	19	0	183	422
Total	65	25	73	0	163	101	707	357	0	1165	21	11	12	0	44	352	586	102	0	1040	2412
Grand Total	134	44	131	0	309	214	1816	722	0	2752	42	23	32	0	97	627	1273	209	0	2109	5267
Apprch %	43.4	14.2	42.4	0		7.8	66	26.2	0		43.3	23.7	33	0		29.7	60.4	9.9	0		
Total %	2.5	0.8	2.5	0	5.9	4.1	34.5	13.7	0	52.2	0.8	0.4	0.6	0	1.8	11.9	24.2	4	0	40	

Start Time	Bonita Avenue Southbound				Temple Avenue Westbound				Service Road Northbound				Temple Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	9	3	13	25	24	<b>291</b>	82	<b>397</b>	3	<b>5</b>	<b>17</b>	<b>25</b>	60	<b>207</b>	30	297	744
07:30 AM	23	5	13	41	<b>42</b>	224	83	349	<b>7</b>	2	2	11	84	187	30	301	702
07:45 AM	<b>33</b>	<b>8</b>	<b>28</b>	<b>69</b>	22	208	124	354	4	3	0	7	104	158	31	293	723
08:00 AM	15	2	20	37	31	229	<b>135</b>	395	7	3	2	12	<b>133</b>	173	<b>39</b>	<b>345</b>	<b>789</b>
Total Volume	80	18	74	172	119	952	424	1495	21	13	21	55	381	725	130	1236	2958
% App. Total	46.5	10.5	43		8	63.7	28.4		38.2	23.6	38.2		30.8	58.7	10.5		
PHF	.606	.563	.661	.623	.708	.818	.785	.941	.750	.650	.309	.550	.716	.876	.833	.896	.937





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 Weather: Clear

File Name : WNTBOTEAM  
 Site Code : 04215551  
 Start Date : 10/1/2015  
 Page No : 3

Start Time	Bonita Avenue Southbound				Temple Avenue Westbound				Service Road Northbound				Temple Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM				07:00 AM				07:15 AM				07:15 AM			
+0 mins.	23	5	13	41	25	<b>386</b>	76	<b>487</b>	3	<b>5</b>	<b>17</b>	<b>25</b>	60	<b>207</b>	30	297
+15 mins.	<b>33</b>	8	<b>28</b>	<b>69</b>	24	291	82	397	<b>7</b>	2	2	11	84	187	30	301
+30 mins.	15	2	20	37	<b>42</b>	224	83	349	4	3	0	7	104	158	31	293
+45 mins.	20	<b>9</b>	24	53	22	208	<b>124</b>	354	7	3	2	12	<b>133</b>	173	<b>39</b>	<b>345</b>
Total Volume	91	24	85	200	113	1109	365	1587	21	13	21	55	381	725	130	1236
% App. Total	45.5	12	42.5		7.1	69.9	23		38.2	23.6	38.2		30.8	58.7	10.5	
PHF	.689	.667	.759	.725	.673	.718	.736	.815	.750	.650	.309	.550	.716	.876	.833	.896

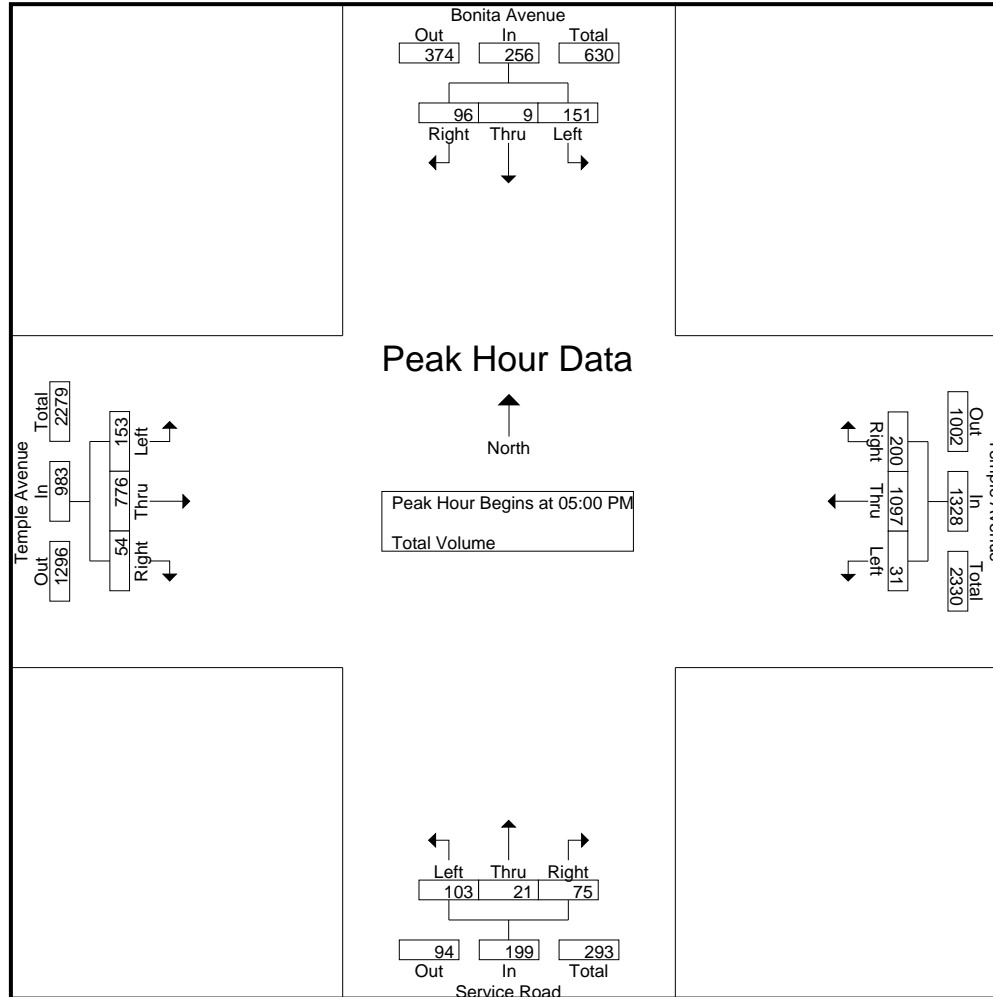
City of Walnut  
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Groups Printed- Total Volume

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	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	
04:00 PM	54	4	23	0	81	5	163	29	0	197	25	6	19	0	50	50	184	13	0	247	575
04:15 PM	82	7	56	0	145	8	147	53	0	208	18	5	29	0	52	48	210	14	0	272	677
04:30 PM	105	4	55	0	164	11	176	36	0	223	22	9	27	0	58	32	266	8	0	306	751
04:45 PM	51	2	24	0	77	3	148	36	0	187	27	6	15	0	48	44	264	11	0	319	631
Total	292	17	158	0	467	27	634	154	0	815	92	26	90	0	208	174	924	46	0	1144	2634
05:00 PM	49	4	24	0	77	5	228	40	0	273	35	6	21	0	62	34	213	16	0	263	675
05:15 PM	31	2	21	0	54	6	284	45	0	335	24	3	16	0	43	40	202	10	0	252	684
05:30 PM	38	2	18	0	58	5	285	55	0	345	31	9	26	0	66	40	176	8	0	224	693
05:45 PM	33	1	33	0	67	15	300	60	0	375	13	3	12	0	28	39	185	20	0	244	714
Total	151	9	96	0	256	31	1097	200	0	1328	103	21	75	0	199	153	776	54	0	983	2766
Grand Total	443	26	254	0	723	58	1731	354	0	2143	195	47	165	0	407	327	1700	100	0	2127	5400
Apprch %	61.3	3.6	35.1	0		2.7	80.8	16.5	0		47.9	11.5	40.5	0		15.4	79.9	4.7	0		
Total %	8.2	0.5	4.7	0	13.4	1.1	32.1	6.6	0	39.7	3.6	0.9	3.1	0	7.5	6.1	31.5	1.9	0	39.4	

Start Time	Bonita Avenue Southbound				Temple Avenue Westbound				Service Road Northbound				Temple Avenue Eastbound				Int. Total
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	<b>49</b>	<b>4</b>	24	<b>77</b>	5	228	40	273	<b>35</b>	6	21	62	34	<b>213</b>	16	<b>263</b>	675
05:15 PM	31	2	21	54	6	284	45	335	24	3	16	43	<b>40</b>	202	10	252	684
05:30 PM	38	2	18	58	5	285	55	345	31	<b>9</b>	<b>26</b>	<b>66</b>	40	176	8	224	693
05:45 PM	33	1	<b>33</b>	67	<b>15</b>	<b>300</b>	<b>60</b>	<b>375</b>	13	3	12	28	39	185	<b>20</b>	244	<b>714</b>
Total Volume	151	9	96	256	31	1097	200	1328	103	21	75	199	153	776	54	983	2766
% App. Total	59	3.5	37.5		2.3	82.6	15.1		51.8	10.6	37.7		15.6	78.9	5.5		
PHF	.770	.563	.727	.831	.517	.914	.833	.885	.736	.583	.721	.754	.956	.911	.675	.934	.968



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	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:15 PM				04:15 PM			
+0 mins.	54	4	23	81	5	228	40	273	18	5	<b>29</b>	52	<b>48</b>	210	14	272
+15 mins.	82	<b>7</b>	<b>56</b>	145	6	284	45	335	22	<b>9</b>	27	58	32	<b>266</b>	8	306
+30 mins.	<b>105</b>	4	55	<b>164</b>	5	285	55	345	27	6	15	48	44	264	11	<b>319</b>
+45 mins.	51	2	24	77	<b>15</b>	<b>300</b>	<b>60</b>	<b>375</b>	<b>35</b>	6	21	<b>62</b>	34	213	<b>16</b>	263
Total Volume	292	17	158	467	31	1097	200	1328	102	26	92	220	158	953	49	1160
% App. Total	62.5	3.6	33.8		2.3	82.6	15.1		46.4	11.8	41.8		13.6	82.2	4.2	
PHF	.695	.607	.705	.712	.517	.914	.833	.885	.729	.722	.793	.887	.823	.896	.766	.909

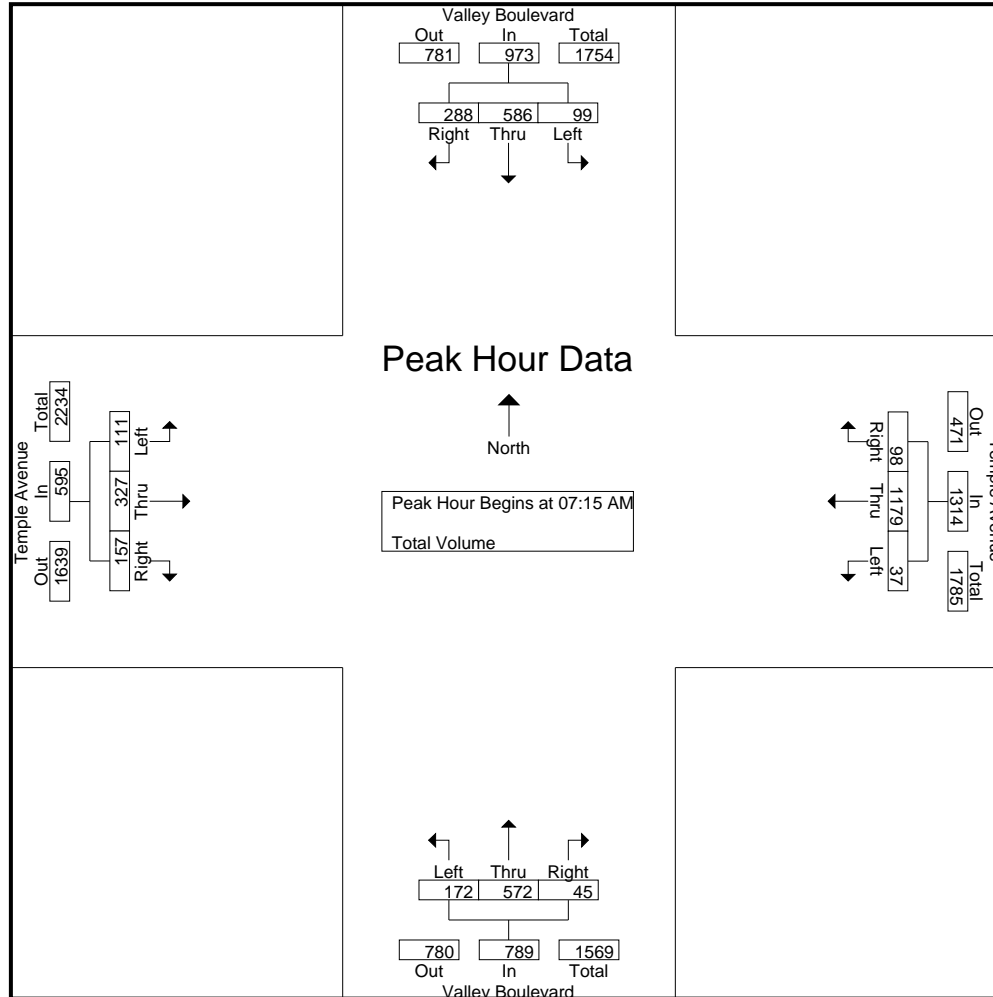
City of Walnut  
 N/S: Valley Boulevard  
 E/W: Temple Avenue  
 Weather: Clear

File Name : WNTVATEAM  
 Site Code : 04215551  
 Start Date : 10/1/2015  
 Page No : 1

Groups Printed- Total Volume

Start Time	Valley Boulevard Southbound					Temple Avenue Westbound					Valley Boulevard Northbound					Temple Avenue Eastbound					Int. Total
	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	
07:00 AM	15	148	98	1	262	10	394	22	0	426	64	86	10	0	160	13	36	37	1	87	935
07:15 AM	19	167	62	2	250	7	319	18	0	344	58	142	11	0	211	29	57	49	0	135	940
07:30 AM	22	125	80	2	229	8	241	21	0	270	37	186	20	0	243	28	89	41	0	158	900
07:45 AM	32	120	79	0	231	9	300	28	1	338	47	117	9	0	173	27	85	28	0	140	882
Total	88	560	319	5	972	34	1254	89	1	1378	206	531	50	0	787	97	267	155	1	520	3657
08:00 AM	26	174	67	0	267	13	319	31	0	363	30	127	5	0	162	27	96	39	0	162	954
08:15 AM	10	158	64	0	232	29	272	38	0	339	56	75	11	0	142	32	73	29	0	134	847
08:30 AM	8	120	59	0	187	15	183	28	2	228	68	92	8	0	168	20	70	20	1	111	694
08:45 AM	17	87	64	0	168	14	342	36	1	393	53	87	6	0	146	23	83	17	1	124	831
Total	61	539	254	0	854	71	1116	133	3	1323	207	381	30	0	618	102	322	105	2	531	3326
Grand Total	149	1099	573	5	1826	105	2370	222	4	2701	413	912	80	0	1405	199	589	260	3	1051	6983
Apprch %	8.2	60.2	31.4	0.3		3.9	87.7	8.2	0.1		29.4	64.9	5.7	0		18.9	56	24.7	0.3		
Total %	2.1	15.7	8.2	0.1	26.1	1.5	33.9	3.2	0.1	38.7	5.9	13.1	1.1	0	20.1	2.8	8.4	3.7	0	15.1	

Start Time	Valley Boulevard Southbound				Temple Avenue Westbound				Valley Boulevard Northbound				Temple Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	19	167	62	248	7	319	18	344	58	142	11	211	29	57	49	135	938
07:30 AM	22	125	80	227	8	241	21	270	37	186	20	243	28	89	41	158	898
07:45 AM	32	120	79	231	9	300	28	337	47	117	9	173	27	85	28	140	881
08:00 AM	26	174	67	267	13	319	31	363	30	127	5	162	27	96	39	162	954
Total Volume	99	586	288	973	37	1179	98	1314	172	572	45	789	111	327	157	595	3671
% App. Total	10.2	60.2	29.6		2.8	89.7	7.5		21.8	72.5	5.7		18.7	55	26.4		
PHF	.773	.842	.900	.911	.712	.924	.790	.905	.741	.769	.563	.812	.957	.852	.801	.918	.962



Counts Unlimited  
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City of Walnut  
 N/S: Valley Boulevard  
 E/W: Temple Avenue  
 Weather: Clear

File Name : WNTVATEAM  
 Site Code : 04215551  
 Start Date : 10/1/2015  
 Page No : 3

Start Time	Valley Boulevard Southbound				Temple Avenue Westbound				Valley Boulevard Northbound				Temple Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				07:15 AM				07:15 AM			
+0 mins.	19	167	62	248	<b>10</b>	<b>394</b>	22	<b>426</b>	<b>58</b>	142	11	211	<b>29</b>	57	<b>49</b>	135
+15 mins.	22	125	<b>80</b>	227	7	319	18	344	37	<b>186</b>	<b>20</b>	<b>243</b>	28	89	41	158
+30 mins.	<b>32</b>	120	79	231	8	241	21	270	47	117	9	173	27	85	28	140
+45 mins.	26	<b>174</b>	67	<b>267</b>	9	300	<b>28</b>	337	30	127	5	162	27	<b>96</b>	39	<b>162</b>
Total Volume	99	586	288	973	34	1254	89	1377	172	572	45	789	111	327	157	595
% App. Total	10.2	60.2	29.6		2.5	91.1	6.5		21.8	72.5	5.7		18.7	55	26.4	
PHF	.773	.842	.900	.911	.850	.796	.795	.808	.741	.769	.563	.812	.957	.852	.801	.918



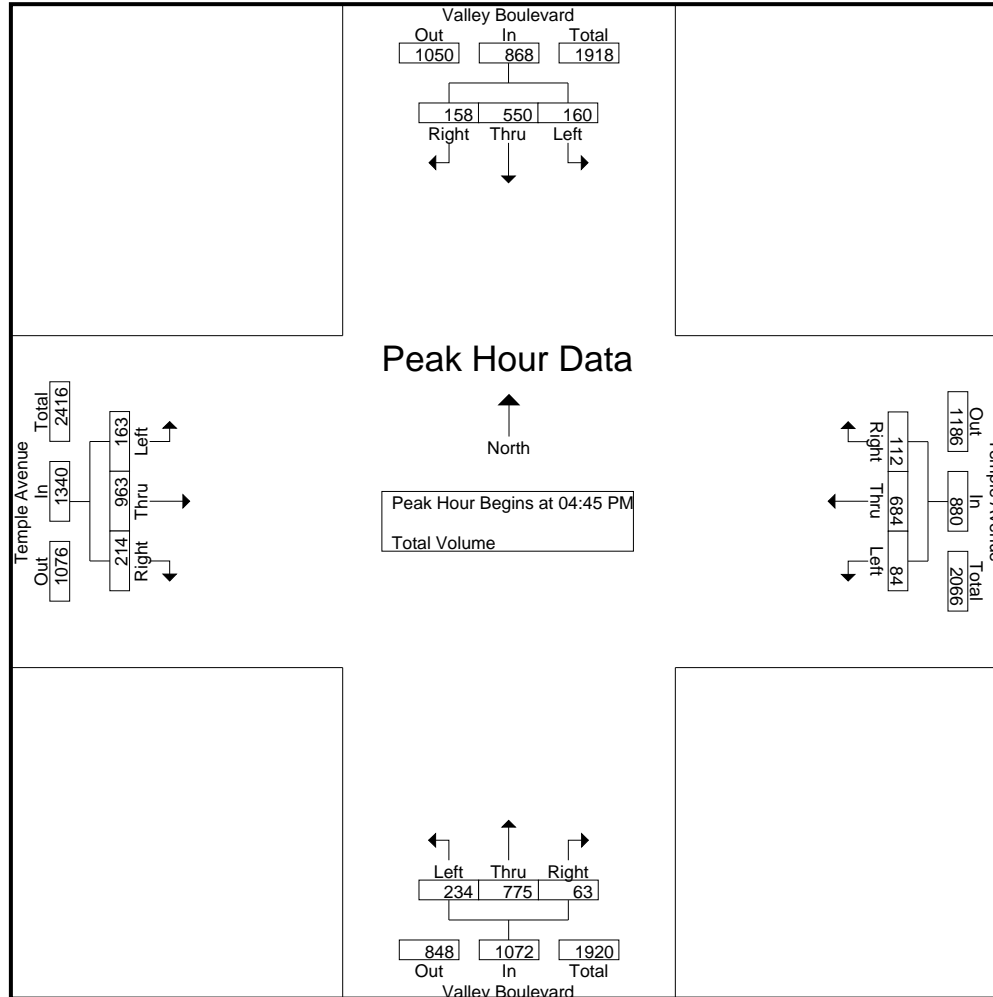
City of Walnut  
 N/S: Valley Boulevard  
 E/W: Temple Avenue  
 Weather: Clear

File Name : WNTVATEPM  
 Site Code : 04215551  
 Start Date : 10/1/2015  
 Page No : 1

Groups Printed- Total Volume

Start Time	Valley Boulevard Southbound					Temple Avenue Westbound					Valley Boulevard Northbound					Temple Avenue Eastbound					Int. Total
	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	
04:00 PM	49	90	29	0	168	18	163	17	0	198	35	144	8	0	187	51	194	42	0	287	840
04:15 PM	51	71	46	0	168	20	166	31	2	219	33	162	18	0	213	45	237	41	0	323	923
04:30 PM	54	96	31	4	185	19	146	27	0	192	53	203	11	0	267	51	286	39	5	381	1025
04:45 PM	54	97	28	0	179	21	182	33	0	236	40	155	15	0	210	66	328	59	1	454	1079
Total	208	354	134	4	700	78	657	108	2	845	161	664	52	0	877	213	1045	181	6	1445	3867
05:00 PM	36	113	32	0	181	16	139	26	0	181	57	234	17	1	309	37	184	46	0	267	938
05:15 PM	36	193	49	1	279	15	186	30	0	231	65	206	13	0	284	25	206	46	3	280	1074
05:30 PM	34	147	49	0	230	32	177	23	2	234	72	180	18	0	270	35	245	63	0	343	1077
05:45 PM	48	74	37	1	160	10	209	32	0	251	40	157	15	0	212	26	305	80	3	414	1037
Total	154	527	167	2	850	73	711	111	2	897	234	777	63	1	1075	123	940	235	6	1304	4126
Grand Total	362	881	301	6	1550	151	1368	219	4	1742	395	1441	115	1	1952	336	1985	416	12	2749	7993
Apprch %	23.4	56.8	19.4	0.4		8.7	78.5	12.6	0.2		20.2	73.8	5.9	0.1		12.2	72.2	15.1	0.4		
Total %	4.5	11	3.8	0.1	19.4	1.9	17.1	2.7	0.1	21.8	4.9	18	1.4	0	24.4	4.2	24.8	5.2	0.2	34.4	

Start Time	Valley Boulevard Southbound				Temple Avenue Westbound				Valley Boulevard Northbound				Temple Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	<b>54</b>	97	28	179	21	182	<b>33</b>	<b>236</b>	40	155	15	210	<b>66</b>	<b>328</b>	59	<b>453</b>	<b>1078</b>
05:00 PM	36	113	32	181	16	139	26	181	57	<b>234</b>	17	<b>308</b>	37	184	46	267	937
05:15 PM	36	<b>193</b>	<b>49</b>	<b>278</b>	15	<b>186</b>	30	231	65	206	13	284	25	206	46	277	1070
05:30 PM	34	147	49	230	<b>32</b>	177	23	232	<b>72</b>	180	<b>18</b>	270	35	245	<b>63</b>	343	1075
Total Volume	160	550	158	868	84	684	112	880	234	775	63	1072	163	963	214	1340	4160
% App. Total	18.4	63.4	18.2		9.5	77.7	12.7		21.8	72.3	5.9		12.2	71.9	16		
PHF	.741	.712	.806	.781	.656	.919	.848	.932	.813	.828	.875	.870	.617	.734	.849	.740	.965



Counts Unlimited  
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City of Walnut  
 N/S: Valley Boulevard  
 E/W: Temple Avenue  
 Weather: Clear

File Name : WNTVATEPM  
 Site Code : 04215551  
 Start Date : 10/1/2015  
 Page No : 3

Start Time	Valley Boulevard Southbound				Temple Avenue Westbound				Valley Boulevard Northbound				Temple Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM				05:00 PM				05:00 PM				04:00 PM			
+0 mins.	<b>54</b>	97	28	179	16	139	26	181	57	<b>234</b>	17	<b>308</b>	51	194	42	287
+15 mins.	36	113	32	181	15	186	30	231	65	206	13	284	45	237	41	323
+30 mins.	36	<b>193</b>	<b>49</b>	<b>278</b>	<b>32</b>	177	23	232	<b>72</b>	180	<b>18</b>	270	51	286	39	376
+45 mins.	34	147	49	230	10	<b>209</b>	<b>32</b>	<b>251</b>	40	157	15	212	<b>66</b>	<b>328</b>	<b>59</b>	<b>453</b>
Total Volume	160	550	158	868	73	711	111	895	234	777	63	1074	213	1045	181	1439
% App. Total	18.4	63.4	18.2		8.2	79.4	12.4		21.8	72.3	5.9		14.8	72.6	12.6	
PHF	.741	.712	.806	.781	.570	.850	.867	.891	.813	.830	.875	.872	.807	.796	.767	.794

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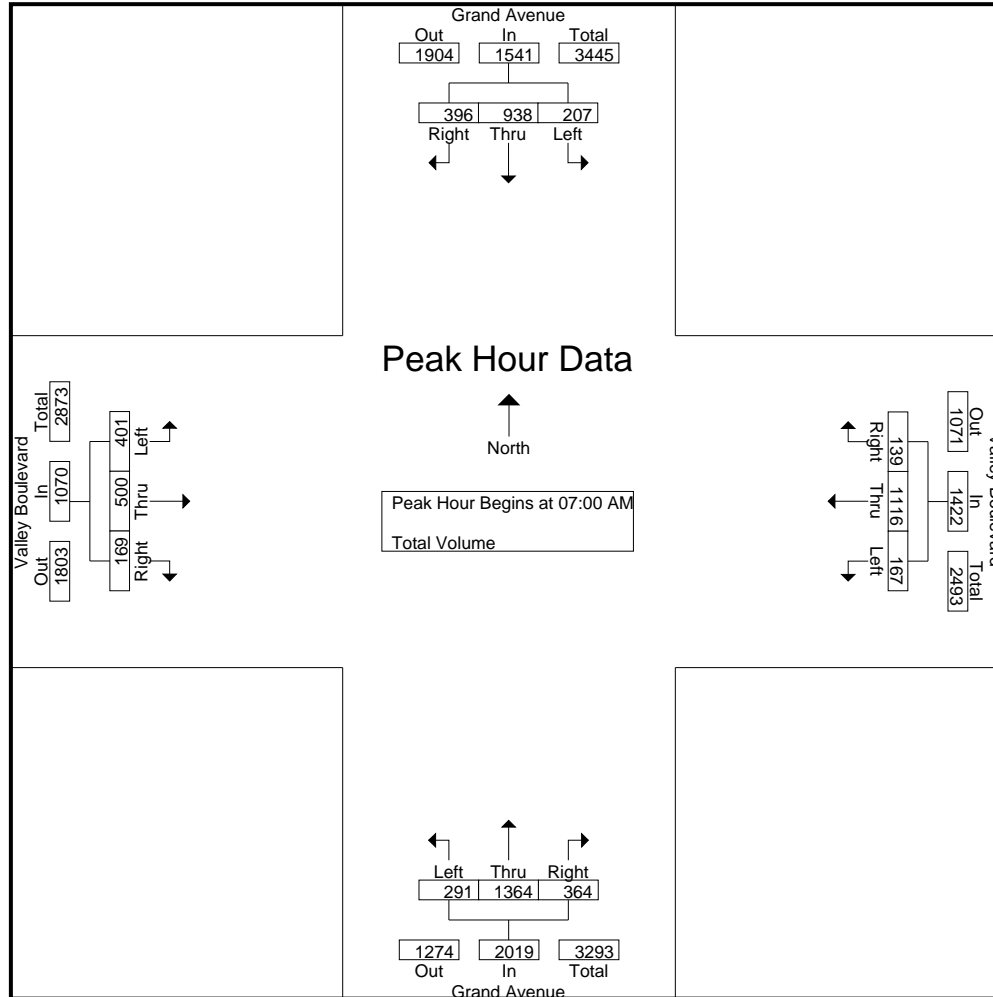
City of Walnut  
 N/S: Grand Avenue  
 E/W: Valley Boulevard  
 Weather: Clear

File Name : WNTGRVAAM  
 Site Code : 04215551  
 Start Date : 10/1/2015  
 Page No : 1

Groups Printed- Total Volume

Start Time	Grand Avenue Southbound					Valley Boulevard Westbound					Grand Avenue Northbound					Valley Boulevard Eastbound					Int. Total
	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	
07:00 AM	31	215	94	0	340	39	320	44	1	404	76	340	83	0	499	74	112	33	0	219	1462
07:15 AM	50	225	107	1	383	53	311	40	4	408	91	348	117	0	556	88	120	46	0	254	1601
07:30 AM	66	238	108	0	412	37	266	28	3	334	67	364	85	0	516	112	148	54	2	316	1578
07:45 AM	60	260	87	0	407	38	219	27	6	290	57	312	79	0	448	127	120	36	0	283	1428
Total	207	938	396	1	1542	167	1116	139	14	1436	291	1364	364	0	2019	401	500	169	2	1072	6069
08:00 AM	51	250	90	0	391	39	257	31	1	328	72	322	68	0	462	107	128	29	0	264	1445
08:15 AM	29	258	95	0	382	60	220	25	5	310	41	302	80	0	423	78	118	41	0	237	1352
08:30 AM	53	250	84	3	390	37	253	37	4	331	52	225	67	0	344	61	111	40	1	213	1278
08:45 AM	42	242	86	1	371	41	190	23	1	255	56	216	75	1	348	72	107	51	2	232	1206
Total	175	1000	355	4	1534	177	920	116	11	1224	221	1065	290	1	1577	318	464	161	3	946	5281
Grand Total	382	1938	751	5	3076	344	2036	255	25	2660	512	2429	654	1	3596	719	964	330	5	2018	11350
Apprch %	12.4	63	24.4	0.2		12.9	76.5	9.6	0.9		14.2	67.5	18.2	0		35.6	47.8	16.4	0.2		
Total %	3.4	17.1	6.6	0	27.1	3	17.9	2.2	0.2	23.4	4.5	21.4	5.8	0	31.7	6.3	8.5	2.9	0	17.8	

Start Time	Grand Avenue Southbound				Valley Boulevard Westbound				Grand Avenue Northbound				Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	31	215	94	340	39	<b>320</b>	<b>44</b>	403	76	340	83	499	74	112	33	219	1461
07:15 AM	50	225	107	382	<b>53</b>	311	40	<b>404</b>	<b>91</b>	348	<b>117</b>	<b>556</b>	88	120	46	254	<b>1596</b>
07:30 AM	<b>66</b>	238	<b>108</b>	<b>412</b>	37	266	28	331	67	<b>364</b>	85	516	112	<b>148</b>	<b>54</b>	<b>314</b>	1573
07:45 AM	60	<b>260</b>	87	407	38	219	27	284	57	312	79	448	<b>127</b>	120	36	283	1422
Total Volume	207	938	396	1541	167	1116	139	1422	291	1364	364	2019	401	500	169	1070	6052
% App. Total	13.4	60.9	25.7		11.7	78.5	9.8		14.4	67.6	18		37.5	46.7	15.8		
PHF	.784	.902	.917	.935	.788	.872	.790	.880	.799	.937	.778	.908	.789	.845	.782	.852	.948



Counts Unlimited  
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City of Walnut  
 N/S: Grand Avenue  
 E/W: Valley Boulevard  
 Weather: Clear

File Name : WNTGRVAAM  
 Site Code : 04215551  
 Start Date : 10/1/2015  
 Page No : 3

Start Time	Grand Avenue Southbound				Valley Boulevard Westbound				Grand Avenue Northbound				Valley Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				07:00 AM				07:15 AM			
+0 mins.	50	225	107	382	39	<b>320</b>	<b>44</b>	403	76	340	83	499	88	120	46	254
+15 mins.	<b>66</b>	238	<b>108</b>	<b>412</b>	<b>53</b>	311	40	<b>404</b>	<b>91</b>	348	<b>117</b>	<b>556</b>	112	<b>148</b>	<b>54</b>	<b>314</b>
+30 mins.	60	<b>260</b>	87	407	37	266	28	331	67	<b>364</b>	85	516	<b>127</b>	120	36	283
+45 mins.	51	250	90	391	38	219	27	284	57	312	79	448	107	128	29	264
Total Volume	227	973	392	1592	167	1116	139	1422	291	1364	364	2019	434	516	165	1115
% App. Total	14.3	61.1	24.6		11.7	78.5	9.8		14.4	67.6	18		38.9	46.3	14.8	
PHF	.860	.936	.907	.966	.788	.872	.790	.880	.799	.937	.778	.908	.854	.872	.764	.888

City of Walnut  
 N/S: Grand Avenue  
 E/W: Valley Boulevard  
 Weather: Clear

File Name : WNTGRVAPM  
 Site Code : 04215551  
 Start Date : 10/1/2015  
 Page No : 1

Groups Printed- Total Volume

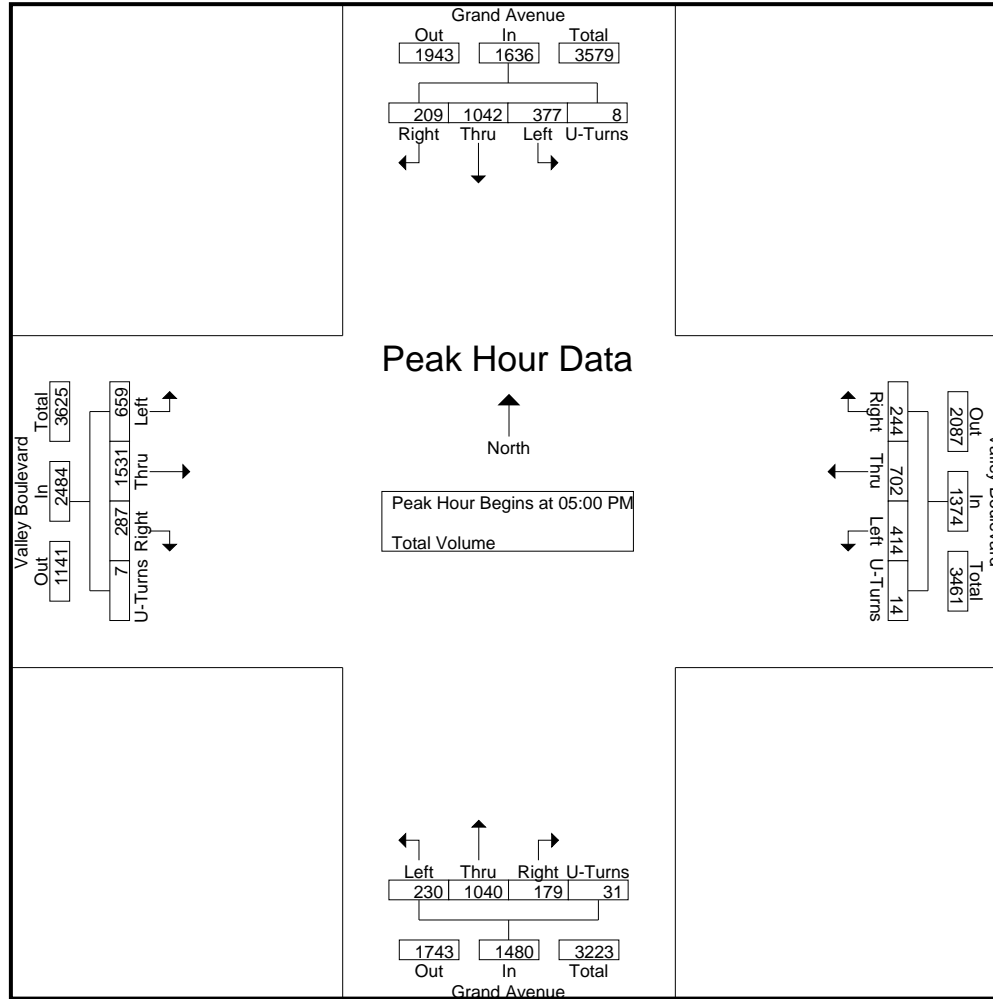
Start Time	Grand Avenue Southbound					Valley Boulevard Westbound					Grand Avenue Northbound					Valley Boulevard Eastbound					Int. Total
	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	
04:00 PM	61	221	44	1	327	63	160	41	1	265	62	188	32	6	288	105	310	64	5	484	1364
04:15 PM	74	332	47	0	453	80	117	34	3	234	51	169	28	7	255	129	256	49	3	437	1379
04:30 PM	74	274	51	0	399	71	151	30	3	255	38	197	41	2	278	144	355	77	2	578	1510
04:45 PM	109	296	52	4	461	86	134	22	2	244	47	198	30	6	281	134	313	92	0	539	1525
Total	318	1123	194	5	1640	300	562	127	9	998	198	752	131	21	1102	512	1234	282	10	2038	5778
05:00 PM	81	250	52	1	384	101	176	50	2	329	61	253	37	6	357	158	396	90	1	645	1715
05:15 PM	109	280	48	2	439	110	180	64	4	358	63	268	48	8	387	167	357	63	4	591	1775
05:30 PM	84	263	45	2	394	101	212	72	5	390	54	273	54	10	391	180	397	76	0	653	1828
05:45 PM	103	249	64	3	419	102	134	58	3	297	52	246	40	7	345	154	381	58	2	595	1656
Total	377	1042	209	8	1636	414	702	244	14	1374	230	1040	179	31	1480	659	1531	287	7	2484	6974
Grand Total	695	2165	403	13	3276	714	1264	371	23	2372	428	1792	310	52	2582	1171	2765	569	17	4522	12752
Apprch %	21.2	66.1	12.3	0.4		30.1	53.3	15.6	1		16.6	69.4	12	2		25.9	61.1	12.6	0.4		
Total %	5.5	17	3.2	0.1	25.7	5.6	9.9	2.9	0.2	18.6	3.4	14.1	2.4	0.4	20.2	9.2	21.7	4.5	0.1	35.5	

Start Time	Grand Avenue Southbound					Valley Boulevard Westbound					Grand Avenue Northbound					Valley Boulevard Eastbound					Int. Total
	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	81	250	52	1	384	101	176	50	2	329	61	253	37	6	357	158	396	<b>90</b>			
<b>05:15 PM</b>	<b>109</b>	<b>280</b>	<b>48</b>	<b>2</b>	<b>439</b>	<b>110</b>	<b>180</b>	<b>64</b>	<b>4</b>	<b>358</b>	<b>63</b>	268	48	8	387	167	357	63	<b>4</b>	591	1775
05:30 PM	84	263	45	2	394	101	<b>212</b>	<b>72</b>	<b>5</b>	<b>390</b>	54	<b>273</b>	<b>54</b>	<b>10</b>	<b>391</b>	<b>180</b>	<b>397</b>			<b>653</b>	<b>1828</b>
05:45 PM	103	249	<b>64</b>	<b>3</b>	419	102	134	58	3	297	52	246	40	7	345	154	381	58	2	595	1656
Total Volume	377	1042	209	8	1636	414	702	244	14	1374	230	1040	179	31	1480	659	1531	287	7	2484	6974
% App. Total	23	63.7	12.8	0.5		30.1	51.1	17.8	1		15.5	70.3	12.1	2.1		26.5	61.6	11.6	0.3		
PHF	.865	.930	.816	.667	.932	.941	.828	.847	.700	.881	.913	.952	.829	.775	.946	.915	.964	.797	.438	.951	.954

Counts Unlimited  
 PO Box 1178  
 Corona, CA 92878  
 (951) 268-6268

City of Walnut  
 N/S: Grand Avenue  
 E/W: Valley Boulevard  
 Weather: Clear

File Name : WNTGRVAPM  
 Site Code : 04215551  
 Start Date : 10/1/2015  
 Page No : 2





Counts Unlimited  
 PO Box 1178  
 Corona, CA 92878  
 (951) 268-6268

City of Walnut  
 N/S: Grand Avenue  
 E/W: Valley Boulevard  
 Weather: Clear

File Name : WNTGRVAPM  
 Site Code : 04215551  
 Start Date : 10/1/2015  
 Page No : 3

Start Time	Grand Avenue Southbound					Valley Boulevard Westbound					Grand Avenue Northbound					Valley Boulevard Eastbound					Int. Total
	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:15 PM					05:00 PM					05:00 PM					05:00 PM					
+0 mins.	74	<b>332</b>																		<b>90</b>	
<b>+15 mins.</b>	<b>74</b>	<b>274</b>	<b>51</b>	<b>0</b>	<b>399</b>	<b>110</b>	<b>180</b>	<b>64</b>	<b>4</b>	<b>358</b>	<b>63</b>	268	48	8	387	167	357	63	<b>4</b>	591	
+30 mins.	<b>109</b>	296	<b>52</b>	<b>4</b>	<b>461</b>	101	<b>212</b>	<b>72</b>	<b>5</b>	<b>390</b>	54	<b>273</b>	<b>54</b>	<b>10</b>	<b>391</b>	<b>180</b>	<b>397</b>			<b>653</b>	
+45 mins.	81	250	52	1	384	102	134	58	3	297	52	246	40	7	345	154	381	58	2	595	
Total Volume	338	1152	202	5	1697	414	702	244	14	1374	230	1040	179	31	1480	659	1531	287	7	2484	
% App. Total	19.9	67.9	11.9	0.3		30.1	51.1	17.8	1		15.5	70.3	12.1	2.1		26.5	61.6	11.6	0.3		
PHF	.775	.867	.971	.313	.920	.941	.828	.847	.700	.881	.913	.952	.829	.775	.946	.915	.964	.797	.438	.951	

# Counts Unlimited, Inc

City of Walnut  
 Grand Avenue  
 S/ Temple Avenue  
 24 Hour Directional Volume Count

PO Box 1178  
 Corona, CA 92878  
 Phone: 951-268-6268  
 email: counts@countsunlimited.com

WNTGRSTE  
 Site Code: 042-15551

Start Time	08-Oct-15 Thu	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		33	213			24	280				
12:15		32	206			26	256				
12:30		29	278			19	268				
12:45		22	324	116	1021	15	337	84	1141	200	2162
01:00		32	292			13	402				
01:15		14	263			16	367				
01:30		15	307			7	331				
01:45		15	244	76	1106	3	275	39	1375	115	2481
02:00		9	338			9	316				
02:15		13	290			7	329				
02:30		18	345			15	<b>337</b>				
02:45		6	346	46	1319	16	<b>409</b>	47	1391	93	2710
03:00		7	360			9	<b>386</b>				
03:15		7	306			14	<b>393</b>				
03:30		14	315			21	327				
03:45		5	317	33	1298	38	272	82	1378	115	2676
04:00		14	345			26	336				
04:15		16	339			42	337				
04:30		16	338			76	378				
04:45		32	350	78	1372	86	350	230	1401	308	2773
05:00		36	433			59	343				
05:15		52	338			114	334				
05:30		72	261			159	401				
05:45		77	<b>419</b>	237	1451	195	315	527	1393	764	2844
06:00		114	<b>427</b>			164	343				
06:15		133	<b>475</b>			173	368				
06:30		204	<b>407</b>			255	373				
06:45		297	344	748	1653	304	397	896	1481	1644	3134
07:00		395	255			317	297				
07:15		<b>520</b>	253			358	226				
07:30		<b>578</b>	232			327	210				
07:45		<b>527</b>	221	2020	961	320	198	1322	931	3342	1892
08:00		<b>439</b>	180			297	233				
08:15		352	190			327	233				
08:30		296	174			325	237				
08:45		277	162	1364	706	316	237	1265	940	2629	1646
09:00		320	154			203	229				
09:15		410	138			249	174				
09:30		333	153			372	208				
09:45		234	116	1297	561	291	259	1115	870	2412	1431
10:00		193	98			239	160				
10:15		215	89			170	105				
10:30		230	106			237	70				
10:45		264	88	902	381	199	59	845	394	1747	775
11:00		293	77			<b>282</b>	56				
11:15		323	59			<b>425</b>	41				
11:30		254	64			<b>382</b>	32				
11:45		249	55	1119	255	<b>310</b>	35	1399	164	2518	419
<b>Total</b>		8036	12084	8036	12084	7851	12859	7851	12859	15887	24943
<b>Combined Total</b>		20120		20120		20710		20710		40830	
AM Peak	-	07:15	-	-	-	11:00	-	-	-	-	-
Vol.	-	2064	-	-	-	1399	-	-	-	-	-
P.H.F.	-	0.893	-	-	-	0.823	-	-	-	-	-
PM Peak	-	-	05:45	-	-	-	02:30	-	-	-	-
Vol.	-	-	1728	-	-	-	1525	-	-	-	-
P.H.F.	-	-	0.909	-	-	-	0.932	-	-	-	-
Percentage		39.9%	60.1%			37.9%	62.1%				





## APPENDIX B – LOS CALCULATION SHEETS

**EXISTING CONDITIONS**

WPS Truck Haul Congestion
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #1 Grand/Temple

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.665
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: B

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different volume metrics. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

Saturation Flow Module:

Table with 12 columns representing saturation flow metrics. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns representing capacity analysis metrics. Rows include Vol/Sat, OvlAdjV/S, and Crit Moves.

\*\*\*\*\*

WPS Truck Haul Congestion
Existing Conditions
AM Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #2 Bonita/Temple

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.570
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 38 Level Of Service: A

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 13 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

Saturation Flow Module table with 13 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 13 columns and 4 rows including Vol/Sat, OvlAdjV/S, and Crit Moves.

\*\*\*\*\*

WPS Truck Haul Congestion
Existing Conditions
AM Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #3 Valley/Temple

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.723
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 53 Level Of Service: C

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 10 rows of volume and adjustment factors.

Saturation Flow Module table with 12 columns and 4 rows showing saturation flow rates and adjustments.

Capacity Analysis Module table with 12 columns and 2 rows showing volume per saturation and critical moves.

\*\*\*\*\*



-----  
WPS Truck Haul Congestion  
Existing Conditions  
AM Peak Hour  
-----

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #4 Grand/Valley

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.670  
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 46 Level Of Service: B  
\*\*\*\*\*

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected				Protected				Protected				Protected							
Rights:	Ignore				Ignore				Ignore				Include							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2	0	3	0	1	2	0	3	0	1	2	0	3	0	1	2	0	3	0	1

Volume Module:

Base Vol:	222	1065	290	179	1000	355	321	464	161	188	920	116
Growth 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
Initial Bse:	222	1065	290	179	1000	355	321	464	161	188	920	116
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	222	1065	290	179	1000	355	321	464	161	188	920	116
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	222	1065	0	179	1000	0	321	464	0	188	920	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	222	1065	0	179	1000	0	321	464	0	188	920	116
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	222	1065	0	179	1000	0	321	464	0	188	920	116

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3200	4800	1600	3200	4800	1600	3200	4800	1600	3200	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.07	0.22	0.00	0.06	0.21	0.00	0.10	0.10	0.00	0.06	0.19	0.07
Crit Moves:	****			****			****			****		

\*\*\*\*\*

WPS Truck Haul Congestion
Existing Conditions
PM Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #1 Grand/Temple

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.698
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: B

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic metrics. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

Saturation Flow Module:

Table with 12 columns representing saturation flow metrics. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns representing capacity analysis metrics. Rows include Vol/Sat, OvlAdjV/S, and Crit Moves.

\*\*\*\*\*

WPS Truck Haul Congestion
Existing Conditions
PM Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #2 Bonita/Temple

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.568
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 38 Level Of Service: A

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 13 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

Saturation Flow Module table with 13 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 13 columns and 4 rows including Vol/Sat, OvlAdjV/S, and Crit Moves.

\*\*\*\*\*

WPS Truck Haul Congestion
Existing Conditions
PM Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #3 Valley/Temple

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.745
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 56 Level Of Service: C
\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 13 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module table with 13 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 13 columns and 2 rows including Vol/Sat and Crit Moves.

\*\*\*\*\*

WPS Truck Haul Congestion
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #4 Grand/Valley

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.756
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 58 Level Of Service: C

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different volume metrics and 12 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics and 2 rows for Vol/Sat and Crit Moves.

\*\*\*\*\*



## EXISTING PLUS CONSTRUCTION CONDITIONS

WPS Truck Haul Congestion
Existing With Truck Haul
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #1 Grand/Temple

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different volume metrics. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

-----|-----|-----|-----|

Saturation Flow Module:

Table with 12 columns representing saturation flow metrics. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

-----|-----|-----|-----|

Capacity Analysis Module:

Table with 12 columns representing capacity analysis metrics. Rows include Vol/Sat, OvlAdjV/S, and Crit Moves.

\*\*\*\*\*

WPS Truck Haul Congestion
Existing With Truck Haul
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #2 Bonita/Temple

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.602
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: B

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 13 columns representing different volume metrics and 13 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

-----|-----|-----|-----|-----|

Saturation Flow Module:

Table with 13 columns for saturation flow metrics and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Table with 13 columns for capacity analysis metrics and 3 rows for Vol/Sat, OvlAdjV/S, and Crit Moves.

\*\*\*\*\*



WPS Truck Haul Congestion
Existing With Truck Haul
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #3 Valley/Temple

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.754
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 58 Level Of Service: C

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different volume metrics and 12 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics and 2 rows for Vol/Sat and Crit Moves.

\*\*\*\*\*

WPS Truck Haul Congestion
Existing With Truck Haul
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #4 Grand/Valley

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.685
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different volume categories and 12 rows of data including Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 12 columns and 4 rows of data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 2 rows of data including Vol/Sat and Crit Moves.

\*\*\*\*\*

Mt SAC WPS CEQA Truck Haul  
1: Grand Ave & Temple Ave

Existing+Construction Conditions  
Timing Plan: AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	285	549	221	159	349	166	265	940	399	299	1027	218
Future Volume (veh/h)	285	549	221	159	349	166	265	940	399	299	1027	218
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	1900
Adj Flow Rate, veh/h	310	597	240	173	379	180	288	1022	434	325	1116	237
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	364	876	549	230	1061	505	343	2189	788	379	1854	394
Arrive On Green	0.11	0.25	0.25	0.07	0.21	0.21	0.10	0.43	0.43	0.11	0.44	0.44
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	3442	5085	1583	3442	4203	892
Grp Volume(v), veh/h	310	597	240	173	379	180	288	1022	434	325	900	453
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1721	1695	1583	1721	1695	1705
Q Serve(g_s), s	10.6	18.3	14.0	5.9	7.6	10.5	9.9	17.2	22.8	11.1	24.2	24.3
Cycle Q Clear(g_c), s	10.6	18.3	14.0	5.9	7.6	10.5	9.9	17.2	22.8	11.1	24.2	24.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	364	876	549	230	1061	505	343	2189	788	379	1495	752
V/C Ratio(X)	0.85	0.68	0.44	0.75	0.36	0.36	0.84	0.47	0.55	0.86	0.60	0.60
Avail Cap(c_a), veh/h	399	888	555	511	1441	623	396	2189	788	424	1495	752
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	40.9	30.2	55.0	40.6	31.4	53.1	24.4	20.9	52.5	25.5	25.5
Incr Delay (d2), s/veh	13.9	2.5	0.9	1.9	0.3	0.7	11.9	0.7	2.8	13.4	1.8	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	9.3	6.2	2.9	3.6	4.7	5.2	8.2	10.5	6.0	11.6	12.2
LnGrp Delay(d),s/veh	66.6	43.4	31.1	56.9	40.9	32.1	65.0	25.1	23.6	65.9	27.3	29.1
LnGrp LOS	E	D	C	E	D	C	E	C	C	E	C	C
Approach Vol, veh/h		1147			732			1744			1678	
Approach Delay, s/veh		47.1			42.5			31.3			35.3	
Approach LOS		D			D			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	57.7	11.2	34.7	15.1	58.9	15.9	30.0				
Change Period (Y+Rc), s	3.2	6.0	3.2	5.0	3.2	6.0	3.2	5.0				
Max Green Setting (Gmax), s	14.8	39.9	17.8	30.1	13.8	40.9	13.9	34.0				
Max Q Clear Time (g_c+I1), s	13.1	24.8	7.9	20.3	11.9	26.3	12.6	12.5				
Green Ext Time (p_c), s	0.1	14.4	0.1	7.0	0.1	13.9	0.1	12.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			37.5									
HCM 2010 LOS			D									

WPS Truck Haul Congestion
Existing With Truck Haul
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #1 Grand/Temple

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.714
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 52 Level Of Service: C

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different volume metrics. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

Saturation Flow Module:

Table with 12 columns representing saturation flow metrics. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns representing capacity analysis metrics. Rows include Vol/Sat, OvlAdjV/S, and Crit Moves.

\*\*\*\*\*

WPS Truck Haul Congestion
Existing With Truck Haul
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #2 Bonita/Temple

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.599
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: A

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 13 columns representing different volume and adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

-----|-----|-----|-----|

Saturation Flow Module:

Table with 13 columns representing saturation flow and adjustment factors. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

-----|-----|-----|-----|

Capacity Analysis Module:

Table with 13 columns representing capacity analysis factors. Rows include Vol/Sat, OvlAdjV/S, and Crit Moves.

\*\*\*\*\*

WPS Truck Haul Congestion
Existing With Truck Haul
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #3 Valley/Temple

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.745
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 56 Level Of Service: C

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different volume metrics and 12 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table with 12 columns representing saturation flow metrics and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns representing capacity analysis metrics and 2 rows including Vol/Sat and Crit Moves.

\*\*\*\*\*

WPS Truck Haul Congestion
Existing With Truck Haul
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #4 Grand/Valley

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.756
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 58 Level Of Service: C

\*\*\*\*\*

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different volume metrics and 12 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics and 2 rows for Vol/Sat and Crit Moves.

\*\*\*\*\*

Mt SAC WPS CEQA Truck Haul  
1: Grand Ave & Temple Ave

Existing+Construction Conditions  
Timing Plan: PM Peak Hour

























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	309	615	298	387	537	250	221	910	309	298	854	240
Future Volume (veh/h)	309	615	298	387	537	250	221	910	309	298	854	240
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	1900
Adj Flow Rate, veh/h	336	668	324	421	584	272	240	989	336	324	928	261
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	390	873	527	475	1380	603	297	1834	789	378	1518	426
Arrive On Green	0.11	0.25	0.25	0.14	0.27	0.27	0.09	0.36	0.36	0.11	0.38	0.38
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	3442	5085	1583	3442	3950	1108
Grp Volume(v), veh/h	336	668	324	421	584	272	240	989	336	324	796	393
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1721	1695	1583	1721	1695	1667
Q Serve(g_s), s	11.5	21.0	20.6	14.4	11.3	15.4	8.2	18.5	16.2	11.1	22.7	22.8
Cycle Q Clear(g_c), s	11.5	21.0	20.6	14.4	11.3	15.4	8.2	18.5	16.2	11.1	22.7	22.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	390	873	527	475	1380	603	297	1834	789	378	1303	641
V/C Ratio(X)	0.86	0.77	0.61	0.89	0.42	0.45	0.81	0.54	0.43	0.86	0.61	0.61
Avail Cap(c_a), veh/h	424	905	542	519	1441	622	436	1834	789	413	1303	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	42.0	33.6	50.8	36.0	27.7	53.9	30.4	19.1	52.5	29.7	29.8
Incr Delay (d2), s/veh	14.5	4.3	2.7	15.0	0.4	0.9	4.2	1.1	1.7	14.2	2.1	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	10.8	9.4	7.8	5.3	6.9	4.1	8.9	7.4	6.0	11.0	11.3
LnGrp Delay(d),s/veh	66.7	46.3	36.2	65.8	36.3	28.7	58.1	31.6	20.8	66.7	31.9	34.1
LnGrp LOS	E	D	D	E	D	C	E	C	C	E	C	C
Approach Vol, veh/h		1328			1277			1565			1513	
Approach Delay, s/veh		49.0			44.4			33.3			39.9	
Approach LOS		D			D			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	49.3	19.7	34.6	13.5	52.1	16.8	37.6				
Change Period (Y+Rc), s	3.2	6.0	3.2	5.0	3.2	6.0	3.2	5.0				
Max Green Setting (Gmax), s	14.4	39.4	18.1	30.7	15.2	38.6	14.8	34.0				
Max Q Clear Time (g_c+I1), s	13.1	20.5	16.4	23.0	10.2	24.8	13.5	17.4				
Green Ext Time (p_c), s	0.1	17.1	0.1	6.6	0.1	12.8	0.1	12.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			41.2									
HCM 2010 LOS			D									





**EXISTING PLUS CONSTRUCTION CONDITIONS -  
EB TEMPLE NROR & NO OVERLAP**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	285	549	221	159	349	166	265	940	399	299	1027	218
Future Volume (veh/h)	285	549	221	159	349	166	265	940	399	299	1027	218
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	1900
Adj Flow Rate, veh/h	310	597	240	173	379	180	288	1022	434	325	1116	237
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	364	876	392	230	1061	505	343	2189	788	379	1854	394
Arrive On Green	0.11	0.25	0.25	0.07	0.21	0.21	0.10	0.43	0.43	0.11	0.44	0.44
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	3442	5085	1583	3442	4203	892
Grp Volume(v), veh/h	310	597	240	173	379	180	288	1022	434	325	900	453
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1721	1695	1583	1721	1695	1705
Q Serve(g_s), s	10.6	18.3	16.1	5.9	7.6	10.5	9.9	17.2	22.8	11.1	24.2	24.3
Cycle Q Clear(g_c), s	10.6	18.3	16.1	5.9	7.6	10.5	9.9	17.2	22.8	11.1	24.2	24.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	364	876	392	230	1061	505	343	2189	788	379	1495	752
V/C Ratio(X)	0.85	0.68	0.61	0.75	0.36	0.36	0.84	0.47	0.55	0.86	0.60	0.60
Avail Cap(c_a), veh/h	399	888	397	511	1441	623	396	2189	788	424	1495	752
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	40.9	40.1	55.0	40.6	31.4	53.1	24.4	20.9	52.5	25.5	25.5
Incr Delay (d2), s/veh	13.9	2.5	3.6	1.9	0.3	0.7	11.9	0.7	2.8	13.4	1.8	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	9.3	7.4	2.9	3.6	4.7	5.2	8.2	10.5	6.0	11.6	12.2
LnGrp Delay(d),s/veh	66.6	43.4	43.6	56.9	40.9	32.1	65.0	25.1	23.6	65.9	27.3	29.1
LnGrp LOS	E	D	D	E	D	C	E	C	C	E	C	C
Approach Vol, veh/h		1147			732			1744			1678	
Approach Delay, s/veh		49.7			42.5			31.3			35.3	
Approach LOS		D			D			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	57.7	11.2	34.7	15.1	58.9	15.9	30.0				
Change Period (Y+Rc), s	3.2	6.0	3.2	5.0	3.2	6.0	3.2	5.0				
Max Green Setting (Gmax), s	14.8	39.9	17.8	30.1	13.8	40.9	13.9	34.0				
Max Q Clear Time (g_c+I1), s	13.1	24.8	7.9	20.3	11.9	26.3	12.6	12.5				
Green Ext Time (p_c), s	0.1	14.4	0.1	7.0	0.1	13.9	0.1	12.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			38.1									
HCM 2010 LOS			D									

























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	309	615	298	387	537	250	221	910	309	298	854	240
Future Volume (veh/h)	309	615	298	387	537	250	221	910	309	298	854	240
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	1900
Adj Flow Rate, veh/h	336	668	324	421	584	272	240	989	336	324	928	261
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	390	885	396	475	1398	609	297	1816	784	378	1504	422
Arrive On Green	0.11	0.25	0.25	0.14	0.27	0.27	0.09	0.36	0.36	0.11	0.38	0.38
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	3442	5085	1583	3442	3950	1108
Grp Volume(v), veh/h	336	668	324	421	584	272	240	989	336	324	796	393
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1721	1695	1583	1721	1695	1667
Q Serve(g_s), s	11.5	20.9	23.2	14.4	11.3	15.3	8.2	18.6	16.3	11.1	22.8	22.9
Cycle Q Clear(g_c), s	11.5	20.9	23.2	14.4	11.3	15.3	8.2	18.6	16.3	11.1	22.8	22.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	390	885	396	475	1398	609	297	1816	784	378	1291	635
V/C Ratio(X)	0.86	0.75	0.82	0.89	0.42	0.45	0.81	0.54	0.43	0.86	0.62	0.62
Avail Cap(c_a), veh/h	424	905	405	519	1441	622	436	1816	784	413	1291	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	41.6	42.4	50.8	35.6	27.4	53.9	30.8	19.4	52.5	30.1	30.1
Incr Delay (d2), s/veh	14.5	4.0	13.2	15.0	0.3	0.9	4.2	1.2	1.7	14.2	2.2	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(50%),veh/ln	6.2	10.7	11.5	7.8	5.3	6.9	4.1	8.9	7.5	6.0	11.0	11.4
LnGrp Delay(d),s/veh	66.7	45.6	55.6	65.8	36.0	28.3	58.1	32.0	21.1	66.7	32.3	34.6
LnGrp LOS	E	D	E	E	D	C	E	C	C	E	C	C
Approach Vol, veh/h		1328			1277			1565			1513	
Approach Delay, s/veh		53.4			44.2			33.6			40.2	
Approach LOS		D			D			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	48.9	19.7	35.0	13.5	51.7	16.8	38.0				
Change Period (Y+Rc), s	3.2	6.0	3.2	5.0	3.2	6.0	3.2	5.0				
Max Green Setting (Gmax), s	14.4	39.4	18.1	30.7	15.2	38.6	14.8	34.0				
Max Q Clear Time (g_c+I1), s	13.1	20.6	16.4	25.2	10.2	24.9	13.5	17.3				
Green Ext Time (p_c), s	0.1	17.1	0.1	4.9	0.1	12.7	0.1	12.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			42.4									
HCM 2010 LOS			D									



**EXISTING PLUS CONSTRUCTION CONDITIONS -  
WB TEMPLE LAGGING PHASE**

Mt SAC WPS CEQA Truck Haul  
1: Grand Ave & Temple Ave

Existing+Construction Conditions - WB Lag  
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	285	549	221	159	349	166	265	940	399	299	1027	218
Future Volume (veh/h)	285	549	221	159	349	166	265	940	399	299	1027	218
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	1900
Adj Flow Rate, veh/h	310	597	240	173	379	180	288	1022	434	325	1116	237
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	364	756	496	318	1095	515	343	2155	817	379	1826	388
Arrive On Green	0.11	0.21	0.21	0.09	0.22	0.22	0.10	0.42	0.42	0.11	0.43	0.43
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	3442	5085	1583	3442	4203	892
Grp Volume(v), veh/h	310	597	240	173	379	180	288	1022	434	325	900	453
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1721	1695	1583	1721	1695	1705
Q Serve(g_s), s	10.6	19.1	10.4	5.8	7.6	10.4	9.9	17.4	6.7	11.1	24.5	24.5
Cycle Q Clear(g_c), s	10.6	19.1	10.4	5.8	7.6	10.4	9.9	17.4	6.7	11.1	24.5	24.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.52
Lane Grp Cap(c), veh/h	364	756	496	318	1095	515	343	2155	817	379	1473	741
V/C Ratio(X)	0.85	0.79	0.48	0.54	0.35	0.35	0.84	0.47	0.53	0.86	0.61	0.61
Avail Cap(c_a), veh/h	399	888	555	511	1441	623	396	2155	817	424	1473	741
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	44.6	17.9	52.0	39.9	30.8	53.1	24.9	7.2	52.5	26.1	26.1
Incr Delay (d2), s/veh	13.9	5.0	1.3	0.5	0.3	0.7	11.9	0.8	2.5	13.4	1.9	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	9.9	4.7	2.8	3.6	4.6	5.2	8.3	3.4	6.0	11.9	12.3
LnGrp Delay(d),s/veh	66.6	49.6	19.1	52.6	40.2	31.5	65.0	25.7	9.6	65.9	28.0	29.9
LnGrp LOS	E	D	B	D	D	C	E	C	A	E	C	C
Approach Vol, veh/h		1147			732			1744			1678	
Approach Delay, s/veh		47.8			41.0			28.2			35.9	
Approach LOS		D			D			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	56.8	16.1	30.6	15.1	58.1	15.9	30.8				
Change Period (Y+Rc), s	3.2	6.0	5.0	* 5	3.2	6.0	3.2	5.0				
Max Green Setting (Gmax), s	14.8	39.9	17.8	* 30	13.8	40.9	13.9	34.0				
Max Q Clear Time (g_c+I1), s	13.1	19.4	7.8	21.1	11.9	26.5	12.6	12.4				
Green Ext Time (p_c), s	0.1	19.2	3.4	4.5	0.1	13.7	0.1	4.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			36.6									
HCM 2010 LOS			D									
<b>Notes</b>												

Mt SAC WPS CEQA Truck Haul  
1: Grand Ave & Temple Ave

Existing+Construction Conditions - WB Lag  
Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	309	615	298	387	537	250	221	910	309	298	854	240
Future Volume (veh/h)	309	615	298	387	537	250	221	910	309	298	854	240
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	1900
Adj Flow Rate, veh/h	336	668	324	421	584	272	240	989	336	324	928	261
Adj No. of Lanes	2	2	1	2	3	1	2	3	1	2	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	390	820	503	503	1422	616	297	1792	789	378	1485	416
Arrive On Green	0.11	0.23	0.23	0.15	0.28	0.28	0.09	0.35	0.35	0.11	0.38	0.38
Sat Flow, veh/h	3442	3539	1583	3442	5085	1583	3442	5085	1583	3442	3950	1108
Grp Volume(v), veh/h	336	668	324	421	584	272	240	989	336	324	796	393
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1695	1583	1721	1695	1583	1721	1695	1667
Q Serve(g_s), s	11.5	21.4	13.2	14.3	11.2	15.2	8.2	18.8	4.4	11.1	23.0	23.1
Cycle Q Clear(g_c), s	11.5	21.4	13.2	14.3	11.2	15.2	8.2	18.8	4.4	11.1	23.0	23.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	390	820	503	503	1422	616	297	1792	789	378	1275	627
V/C Ratio(X)	0.86	0.81	0.64	0.84	0.41	0.44	0.81	0.55	0.43	0.86	0.62	0.63
Avail Cap(c_a), veh/h	424	905	542	519	1441	622	436	1792	789	413	1275	627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	43.7	16.3	49.8	35.2	27.0	53.9	31.2	7.1	52.5	30.5	30.6
Incr Delay (d2), s/veh	14.5	6.0	3.1	10.5	0.3	0.9	4.2	1.2	1.7	14.2	2.3	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	11.2	6.1	7.5	5.3	6.7	4.1	9.0	4.1	6.0	11.1	11.4
LnGrp Delay(d),s/veh	66.7	49.7	19.5	60.4	35.5	27.9	58.1	32.5	8.8	66.7	32.8	35.3
LnGrp LOS	E	D	B	E	D	C	E	C	A	E	C	D
Approach Vol, veh/h		1328			1277			1565			1513	
Approach Delay, s/veh		46.6			42.1			31.3			40.7	
Approach LOS		D			D			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	48.3	22.5	32.8	13.5	51.1	16.8	38.5				
Change Period (Y+Rc), s	3.2	6.0	5.0	* 5	3.2	6.0	3.2	5.0				
Max Green Setting (Gmax), s	14.4	39.4	18.1	* 31	15.2	38.6	14.8	34.0				
Max Q Clear Time (g_c+I1), s	13.1	20.8	16.3	23.4	10.2	25.1	13.5	17.2				
Green Ext Time (p_c), s	0.1	16.9	1.2	4.4	0.1	12.5	0.1	7.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			39.8									
HCM 2010 LOS			D									
<b>Notes</b>												