



# Traffic Data Inc

PO Box 16296  
St. Louis Park, MN 55416

File Name : 3 - Hwy 10-169 & Armstrong Blvd, 4-24-13, 12am-12pm

Site Code : 105132-3

Start Date : 4/24/2013

Page No : 1

TH 10 & Armstrong Blvd  
Ramsey, MN

Groups Printed- Cars + - Trucks

Start Time	Armstrong Blvd From North						Hwy 10-169 From East						Armstrong Blvd From South						Hwy 10-169 From West						Int. Total	
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total		
12:00 AM	0	0	1	0	0	1	3	26	0	0	0	29	0	0	0	0	0	0	0	0	19	0	0	4	23	53
12:15 AM	0	0	1	0	0	1	7	35	1	0	0	43	0	0	0	0	0	0	0	0	17	1	0	0	18	62
12:30 AM	0	0	1	0	0	1	1	25	0	0	0	26	0	0	0	0	0	0	0	0	8	0	0	0	8	35
12:45 AM	1	0	0	0	0	1	0	12	0	0	0	12	0	0	0	0	0	0	0	0	15	1	0	0	16	29
Total	1	0	3	0	0	4	11	98	1	0	0	110	0	0	0	0	0	0	0	0	59	2	0	4	65	179
01:00 AM	0	0	1	0	0	1	6	27	0	0	0	33	0	0	0	0	0	0	0	0	12	1	0	0	13	47
01:15 AM	0	0	1	0	0	1	4	35	0	0	0	39	0	0	0	0	0	0	0	0	16	1	0	0	17	57
01:30 AM	1	0	1	0	0	2	0	21	0	1	0	22	0	0	0	0	0	0	0	0	12	0	0	0	12	36
01:45 AM	0	0	2	0	0	2	2	26	1	0	0	29	0	1	0	0	0	1	0	0	9	0	0	0	9	41
Total	1	0	5	0	0	6	12	109	1	1	0	123	0	1	0	0	0	1	0	0	49	2	0	0	51	181
02:00 AM	0	0	0	0	0	0	5	23	0	0	0	28	0	0	0	0	0	0	0	0	15	0	0	0	15	43
02:15 AM	0	0	1	0	0	1	1	16	0	0	0	17	0	0	0	0	0	0	0	0	11	0	0	0	11	29
02:30 AM	3	0	2	0	0	5	2	15	0	0	0	17	0	0	0	0	0	0	0	0	12	0	0	0	12	34
02:45 AM	0	0	2	0	0	2	1	11	0	0	0	12	0	0	0	0	0	0	0	0	15	0	0	0	15	29
Total	3	0	5	0	0	8	9	65	0	0	0	74	0	0	0	0	0	0	0	0	53	0	0	0	53	135
03:00 AM	0	0	2	0	0	2	3	15	0	0	0	18	1	0	0	0	0	1	1	20	0	0	0	21	42	
03:15 AM	0	0	0	0	0	0	4	14	0	0	0	18	0	0	0	0	0	0	0	28	1	0	0	29	47	
03:30 AM	0	0	8	0	0	8	1	12	1	0	0	14	0	1	0	0	0	1	0	27	1	1	0	29	52	
03:45 AM	1	0	6	0	0	7	1	8	1	0	0	10	0	1	0	0	0	1	0	34	0	0	0	34	52	
Total	1	0	16	0	0	17	9	49	2	0	0	60	1	2	0	0	0	3	1	109	2	1	0	113	193	
04:00 AM	2	0	8	0	0	10	0	14	0	0	0	14	1	0	1	0	0	2	1	45	0	0	0	46	72	
04:15 AM	0	0	12	0	0	12	1	27	0	0	0	28	1	0	0	0	0	1	0	87	1	0	0	88	129	
04:30 AM	2	0	16	0	0	18	2	24	1	0	0	27	0	0	0	0	0	0	0	130	2	0	0	132	177	
04:45 AM	0	0	13	0	0	13	4	30	0	0	0	34	0	0	0	0	0	0	0	122	3	0	0	125	172	
Total	4	0	49	0	0	53	7	95	1	0	0	103	2	0	1	0	0	3	1	384	6	0	0	391	550	
05:00 AM	2	1	31	0	0	34	1	35	0	0	0	36	1	1	0	0	0	2	0	170	3	0	0	173	245	
05:15 AM	4	0	44	0	0	48	0	74	1	0	0	75	1	0	0	0	1	0	0	225	3	0	0	228	352	
05:30 AM	3	0	44	0	0	47	2	76	1	0	0	79	3	0	1	0	0	4	0	316	6	0	0	322	452	
05:45 AM	2	0	40	0	0	42	4	71	0	0	0	75	0	0	0	0	0	0	0	311	9	1	0	321	438	
Total	11	1	159	0	0	171	7	256	2	0	0	265	5	1	1	0	0	7	0	1022	21	1	0	1044	1487	
06:00 AM	3	0	43	0	0	46	6	99	0	0	0	105	1	0	1	0	0	2	0	361	5	0	0	366	519	
06:15 AM	7	1	65	0	0	73	10	146	0	0	0	156	4	0	0	0	0	4	0	493	9	0	0	502	735	
06:30 AM	9	2	51	0	0	62	9	195	2	0	0	206	1	1	0	0	0	2	0	469	12	0	0	481	751	
06:45 AM	7	0	51	0	0	58	12	162	0	0	0	174	6	0	1	0	0	7	1	469	16	1	0	487	726	
Total	26	3	210	0	0	239	37	602	2	0	0	641	12	1	2	0	0	15	1	1792	42	1	0	1836	2731	
07:00 AM	9	1	42	0	0	52	11	157	2	0	0	170	0	0	0	0	0	0	0	414	14	0	0	428	650	



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Groups Printed- Cars + - Trucks

Start Time	Armstrong Blvd From North						Hwy 10-169 From East						Armstrong Blvd From South						Hwy 10-169 From West						Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	
07:15 AM	9	3	62	0	0	74	15	185	5	1	0	206	2	1	1	0	0	4	3	432	17	0	0	452	736
07:30 AM	12	2	50	0	0	64	19	224	3	0	0	246	2	1	0	0	0	3	1	558	17	0	0	576	889
07:45 AM	4	2	40	0	0	46	16	207	8	0	0	231	5	1	0	0	0	6	5	379	21	1	0	406	689
Total	34	8	194	0	0	236	61	773	18	1	0	853	9	3	1	0	0	13	9	1783	69	1	0	1862	2964
08:00 AM	3	1	36	0	0	40	22	200	5	0	0	227	6	1	3	0	0	10	4	375	12	0	0	391	668
08:15 AM	9	4	35	0	0	48	16	160	7	2	0	185	6	0	0	0	0	6	4	290	11	0	0	305	544
08:30 AM	17	3	45	0	0	65	18	161	5	2	0	186	8	0	1	0	0	9	9	313	13	0	0	335	595
08:45 AM	5	2	30	0	0	37	21	160	8	1	0	190	2	0	2	0	0	4	0	296	5	0	0	301	532
Total	34	10	146	0	0	190	77	681	25	5	0	788	22	1	6	0	0	29	17	1274	41	0	0	1332	2339
09:00 AM	10	0	41	0	0	51	19	170	6	2	0	197	4	2	2	0	0	8	2	242	3	0	0	247	503
09:15 AM	10	4	35	0	0	49	25	160	9	4	0	198	0	2	5	0	0	7	0	265	13	0	0	278	532
09:30 AM	5	2	32	0	0	39	13	167	1	2	0	183	3	4	0	0	0	7	4	216	11	0	0	231	460
09:45 AM	5	0	22	0	0	27	20	170	6	2	0	198	1	4	3	0	0	8	6	211	7	0	0	224	457
Total	30	6	130	0	0	166	77	667	22	10	0	776	8	12	10	0	0	30	12	934	34	0	0	980	1952
10:00 AM	15	4	30	0	0	49	20	179	6	3	0	208	5	2	3	0	0	10	5	194	11	0	0	210	477
10:15 AM	7	2	24	0	0	33	25	171	5	0	0	201	5	2	0	0	0	7	2	242	5	0	0	249	490
10:30 AM	10	3	24	0	0	37	29	197	4	4	0	234	5	3	1	0	0	9	2	230	8	0	0	240	520
10:45 AM	20	2	23	0	0	45	19	141	7	5	0	172	4	0	2	0	0	6	3	207	6	0	0	216	439
Total	52	11	101	0	0	164	93	688	22	12	0	815	19	7	6	0	0	32	12	873	30	0	0	915	1926
11:00 AM	6	0	29	0	0	35	22	176	7	3	0	208	7	3	3	0	0	13	4	187	9	0	0	200	456
11:15 AM	11	3	20	0	0	34	25	169	4	5	0	203	8	3	3	0	0	14	5	203	10	1	0	219	470
11:30 AM	9	5	14	0	0	28	20	164	7	5	0	196	3	3	1	0	0	7	3	191	11	0	0	205	436
11:45 AM	14	3	29	0	0	46	33	159	4	6	0	202	5	3	1	0	0	9	1	185	20	0	0	206	463
Total	40	11	92	0	0	143	100	668	22	19	0	809	23	12	8	0	0	43	13	766	50	1	0	830	1825
12:00 PM	16	6	16	0	0	38	31	181	7	2	0	221	2	5	5	0	0	12	1	193	21	0	0	215	486
12:15 PM	12	4	28	0	0	44	29	247	10	2	0	288	7	3	1	0	0	11	2	177	13	0	0	192	535
12:30 PM	12	4	28	0	0	44	33	193	4	5	0	235	6	4	2	0	0	12	2	210	13	0	0	225	516
12:45 PM	16	5	18	0	0	39	27	170	4	0	0	201	3	3	0	0	0	6	1	209	17	1	0	228	474
Total	56	19	90	0	0	165	120	791	25	9	0	945	18	15	8	0	0	41	6	789	64	1	0	860	2011
01:00 PM	14	5	22	0	0	41	28	202	7	2	0	239	6	1	5	0	0	12	9	181	16	0	0	206	498
01:15 PM	11	3	23	0	0	37	29	232	11	3	0	275	6	1	1	0	0	8	5	185	10	0	0	200	520
01:30 PM	17	2	22	0	0	41	30	219	5	7	0	261	6	0	3	0	0	9	4	234	5	0	0	243	554
01:45 PM	17	2	25	0	0	44	41	215	8	4	0	268	6	2	2	0	0	10	4	190	8	0	0	202	524
Total	59	12	92	0	0	163	128	868	31	16	0	1043	24	4	11	0	0	39	22	790	39	0	0	851	2096
02:00 PM	22	3	13	0	0	38	37	270	5	2	0	314	14	3	4	0	0	21	5	219	13	0	0	237	610
02:15 PM	14	2	22	0	0	38	44	277	11	2	0	334	4	6	1	0	0	11	1	207	14	0	0	222	605
02:30 PM	13	8	27	0	0	48	64	306	9	3	0	382	5	4	2	0	0	11	2	266	11	0	0	279	720



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Page No : 3

Groups Printed- Cars + - Trucks

Start Time	Armstrong Blvd From North						Hwy 10-169 From East						Armstrong Blvd From South						Hwy 10-169 From West						Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	
02:45 PM	18	3	27	0	0	48	56	310	10	5	0	381	8	5	2	0	0	15	3	254	13	0	0	270	714
Total	67	16	89	0	0	172	201	1163	35	12	0	1411	31	18	9	0	0	58	11	946	51	0	0	1008	2649
03:00 PM	25	1	17	0	0	43	45	411	10	4	0	470	10	1	1	0	0	12	1	221	13	0	0	235	760
03:15 PM	32	3	15	0	0	50	64	387	6	1	0	458	6	1	4	0	0	11	2	239	18	0	0	259	778
03:30 PM	31	5	25	0	0	61	64	404	7	3	0	478	4	7	2	0	0	13	2	228	23	1	0	254	806
03:45 PM	28	2	19	0	0	49	71	439	9	2	0	521	6	1	3	0	1	11	3	244	10	1	0	258	839
Total	116	11	76	0	0	203	244	1641	32	10	0	1927	26	10	10	0	1	47	8	932	64	2	0	1006	3183
04:00 PM	29	1	18	0	0	48	73	452	5	4	0	534	4	4	5	0	0	13	5	277	20	0	0	302	897
04:15 PM	35	5	28	0	0	68	73	440	8	0	0	521	1	5	4	0	0	10	4	268	13	0	0	285	884
04:30 PM	30	5	28	0	0	63	77	439	2	4	0	522	14	7	9	0	0	30	3	288	16	0	0	307	922
04:45 PM	25	3	19	0	0	47	75	465	13	8	0	561	5	6	3	0	0	14	1	256	11	0	0	268	890
Total	119	14	93	0	0	226	298	1796	28	16	0	2138	24	22	21	0	0	67	13	1089	60	0	0	1162	3593
05:00 PM	33	1	23	0	0	57	74	452	7	2	0	535	6	5	10	0	0	21	3	267	14	0	5	289	902
05:15 PM	34	4	25	0	0	63	78	391	7	3	0	479	1	3	5	0	0	9	3	272	9	0	0	284	835
05:30 PM	26	1	22	0	0	49	74	357	5	1	0	437	10	2	11	0	2	25	3	245	15	0	0	263	774
05:45 PM	17	1	22	0	0	40	59	352	7	1	0	419	4	5	2	0	0	11	1	218	11	0	0	230	700
Total	110	7	92	0	0	209	285	1552	26	7	0	1870	21	15	28	0	2	66	10	1002	49	0	5	1066	3211
06:00 PM	32	7	24	0	0	63	75	292	1	3	0	371	10	5	6	0	0	21	2	170	11	1	0	184	639
06:15 PM	19	2	24	1	0	46	47	339	3	1	0	390	3	1	1	0	0	5	1	217	13	0	0	231	672
06:30 PM	18	0	21	0	0	39	62	274	6	1	0	343	2	0	2	0	0	4	2	215	16	0	0	233	619
06:45 PM	15	0	18	0	0	33	48	238	8	0	0	294	3	1	4	0	0	8	2	138	10	0	0	150	485
Total	84	9	87	1	0	181	232	1143	18	5	0	1398	18	7	13	0	0	38	7	740	50	1	0	798	2415
07:00 PM	19	0	19	0	0	38	38	263	1	0	0	302	1	1	2	0	0	4	0	113	11	0	0	124	468
07:15 PM	21	1	20	0	0	42	40	245	6	3	0	294	0	0	3	0	0	3	2	136	10	0	0	148	487
07:30 PM	6	0	8	0	0	14	35	206	1	1	0	243	1	0	3	0	0	4	1	115	4	0	0	120	381
07:45 PM	10	2	13	0	0	25	34	191	0	0	0	225	0	0	1	0	0	1	0	106	7	1	0	114	365
Total	56	3	60	0	0	119	147	905	8	4	0	1064	2	1	9	0	0	12	3	470	32	1	0	506	1701
08:00 PM	10	0	22	0	0	32	44	165	2	0	0	211	0	1	0	0	0	1	0	108	7	0	0	115	359
08:15 PM	10	1	7	0	0	18	40	177	3	2	0	222	0	1	1	0	0	2	0	102	3	0	0	105	347
08:30 PM	7	2	8	0	0	17	40	167	3	1	0	211	2	1	0	0	0	3	0	101	3	0	0	104	335
08:45 PM	4	0	8	0	0	12	42	158	3	1	0	204	1	0	0	0	0	1	1	66	4	0	0	71	288
Total	31	3	45	0	0	79	166	667	11	4	0	848	3	3	1	0	0	7	1	377	17	0	0	395	1329
09:00 PM	4	1	10	0	0	15	27	135	0	0	0	162	2	0	2	0	0	4	0	76	5	0	0	81	262
09:15 PM	6	1	15	0	0	22	21	115	0	0	0	136	0	1	0	0	0	1	0	102	2	0	0	104	263
09:30 PM	5	0	13	0	0	18	22	101	1	2	0	126	1	0	0	0	0	1	2	86	2	0	0	90	235
09:45 PM	5	0	6	0	0	11	16	106	0	0	0	122	0	0	0	0	0	0	0	71	7	1	0	79	212
Total	20	2	44	0	0	66	86	457	1	2	0	546	3	1	2	0	0	6	2	335	16	1	0	354	972



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Page No : 4

Groups Printed- Cars + - Trucks

Start Time	Armstrong Blvd From North						Hwy 10-169 From East						Armstrong Blvd From South						Hwy 10-169 From West						Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	
10:00 PM	4	0	9	0	0	13	18	82	1	0	0	101	0	0	0	0	0	0	1	73	3	0	0	77	191
10:15 PM	1	0	11	0	0	12	13	104	0	0	0	117	2	0	0	0	0	2	4	58	5	0	0	67	198
10:30 PM	4	0	2	0	0	6	14	67	1	0	0	82	0	0	0	0	0	0	1	56	0	0	0	57	145
10:45 PM	3	0	4	0	0	7	6	43	1	0	0	50	1	1	0	0	0	2	0	34	0	0	0	34	93
Total	12	0	26	0	0	38	51	296	3	0	0	350	3	1	0	0	0	4	6	221	8	0	0	235	627
11:00 PM	1	0	3	0	0	4	6	68	0	0	0	74	1	0	0	0	0	1	0	31	2	0	0	33	112
11:15 PM	1	0	4	0	0	5	11	62	0	0	0	73	0	0	0	0	0	0	0	46	0	0	0	46	124
11:30 PM	0	0	0	0	0	0	8	64	0	0	0	72	0	0	0	0	0	0	0	22	2	0	0	24	96
11:45 PM	1	0	1	0	0	2	4	46	1	0	0	51	0	0	0	0	0	0	0	25	2	0	0	27	80
Total	3	0	8	0	0	11	29	240	1	0	0	270	1	0	0	0	0	1	0	124	6	0	0	130	412
Grand Total	970	146	1912	1	0	3029	2487	16270	337	133	0	19227	275	137	147	0	3	562	155	16913	755	11	9	17843	40661
Apprch %	32	4.8	63.1	0	0		12.9	84.6	1.8	0.7	0		48.9	24.4	26.2	0	0.5		0.9	94.8	4.2	0.1	0.1		
Total %	2.4	0.4	4.7	0	0	7.4	6.1	40	0.8	0.3	0	47.3	0.7	0.3	0.4	0	0	1.4	0.4	41.6	1.9	0	0	43.9	
Cars +	948	138	1863	1	0	2950	2414	15595	328	131	0	18468	270	125	140	0	2	537	151	16200	723	11	0	17085	39040
% Cars +	97.7	94.5	97.4	100	0	97.4	97.1	95.9	97.3	98.5	0	96.1	98.2	91.2	95.2	0	66.7	95.6	97.4	95.8	95.8	100	0	95.8	96
Trucks	22	8	49	0	0	79	73	675	9	2	0	759	5	12	7	0	1	25	4	713	32	0	9	758	1621
% Trucks	2.3	5.5	2.6	0	0	2.6	2.9	4.1	2.7	1.5	0	3.9	1.8	8.8	4.8	0	33.3	4.4	2.6	4.2	4.2	0	100	4.2	4



# Traffic Data Inc

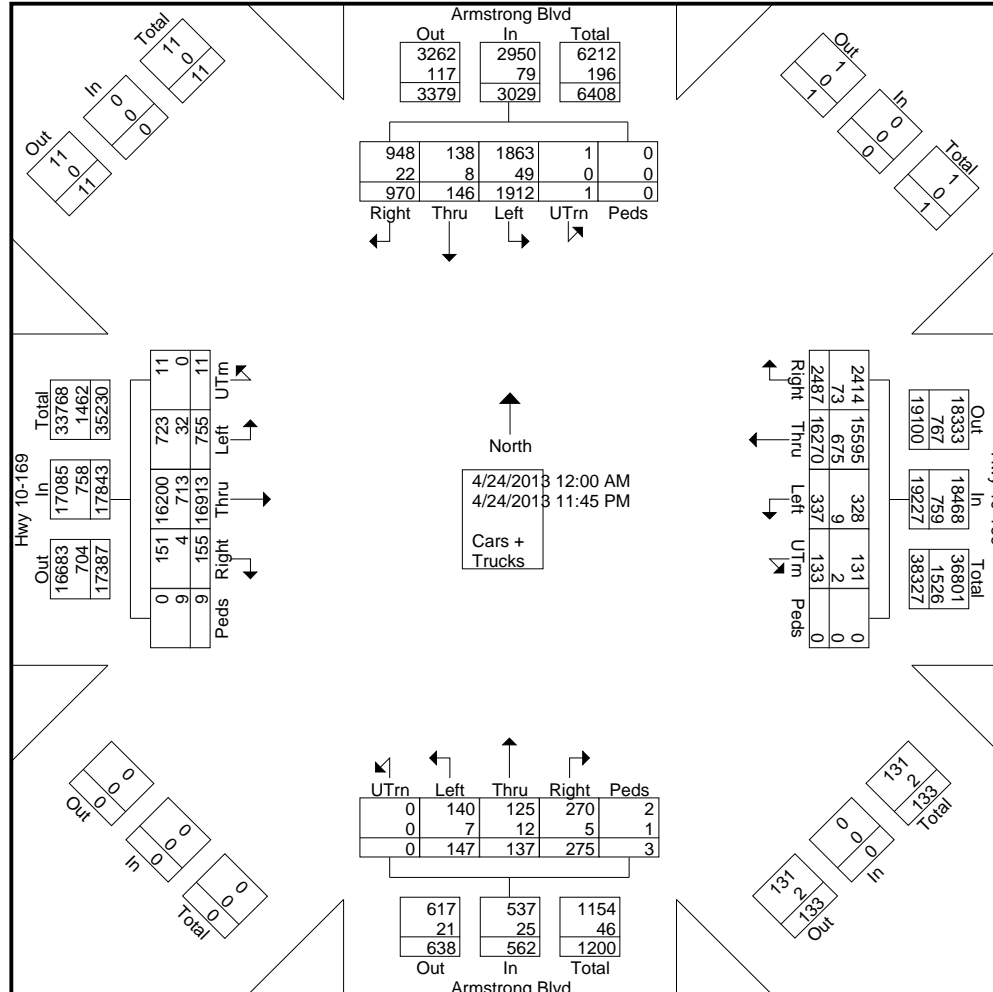
PO Box 16296  
St. Louis Park, MN 55416

File Name : 3 - Hwy 10-169 & Armstrong Blvd, 4-24-13, 12am-12pm

Site Code : 105132-3

Start Date : 4/24/2013

Page No : 5





# Traffic Data Inc

PO Box 16296  
St. Louis Park, MN 55416

File Name : 3 - Hwy 10-169 & Armstrong Blvd, 4-24-13, 12am-12pm

Site Code : 105132-3

Start Date : 4/24/2013

Page No : 6

Start Time	Armstrong Blvd From North						Hwy 10-169 From East						Armstrong Blvd From South						Hwy 10-169 From West						Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	
Peak Hour Analysis From 12:00 AM to 11:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 06:45 AM																									
06:45 AM	7	0	51	0	0	58	12	162	0	0	0	174	6	0	1	0	0	7	1	469	16	1	0	487	726
07:00 AM	9	1	42	0	0	52	11	157	2	0	0	170	0	0	0	0	0	0	0	414	14	0	0	428	650
07:15 AM	9	3	62	0	0	74	15	185	5	1	0	206	2	1	1	0	0	4	3	432	17	0	0	452	736
07:30 AM	12	2	50	0	0	64	19	224	3	0	0	246	2	1	0	0	0	3	1	558	17	0	0	576	889
Total Volume	37	6	205	0	0	248	57	728	10	1	0	796	10	2	2	0	0	14	5	1873	64	1	0	1943	3001
% App. Total	14.9	2.4	82.7	0	0		7.2	91.5	1.3	0.1	0		71.4	14.3	14.3	0	0		0.3	96.4	3.3	0.1	0		
PHF	.771	.500	.827	.000	.000	.838	.750	.813	.500	.250	.000	.809	.417	.500	.500	.000	.000	.500	.417	.839	.941	.250	.000	.843	.844
Peak Hour Analysis From 12:00 PM to 11:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:15 PM																									
04:15 PM	35	5	28	0	0	68	73	440	8	0	0	521	1	5	4	0	0	10	4	268	13	0	0	285	884
04:30 PM	30	5	28	0	0	63	77	439	2	4	0	522	14	7	9	0	0	30	3	288	16	0	0	307	922
04:45 PM	25	3	19	0	0	47	75	465	13	8	0	561	5	6	3	0	0	14	1	256	11	0	0	268	890
05:00 PM	33	1	23	0	0	57	74	452	7	2	0	535	6	5	10	0	0	21	3	267	14	0	5	289	902
Total Volume	123	14	98	0	0	235	299	1796	30	14	0	2139	26	23	26	0	0	75	11	1079	54	0	5	1149	3598
% App. Total	52.3	6	41.7	0	0		14	84	1.4	0.7	0		34.7	30.7	34.7	0	0		1	93.9	4.7	0	0.4		
PHF	.879	.700	.875	.000	.000	.864	.971	.966	.577	.438	.000	.953	.464	.821	.650	.000	.000	.625	.688	.937	.844	.000	.250	.936	.976