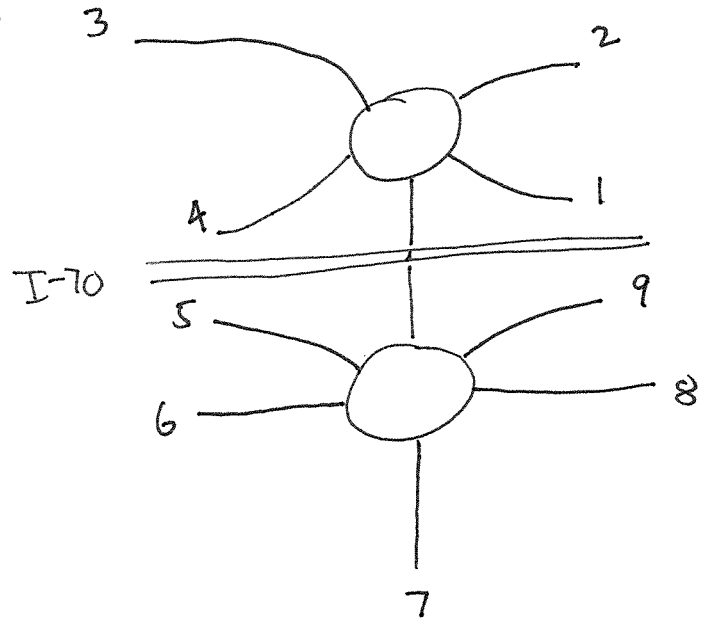


APPENDIX A TRAFFIC COUNTS

MID VAIL RAMPS / FRONTAGE RD JAN 15 2005

	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9
15:30	0	0	16	1	0	11	9	4	0
15:45	0	0	20	5	0	14	12	8	0
16:00	0	0	13	2	0	27	11	8	0
16:15	0	0	17	0	0	36	9	9	0
16:30	0	1	17	4	0	25	14	12	0
16:45	0	0	15	2	0	31	17	7	0
17:00	0	0	26	2	0	34	21	9	0
17:15	0	1	5	0	0	25	14	8	0
	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9
15:30	0	0	2	0	0	0	0	0	0
15:45	0	0	4	1	0	0	1	0	0
16:00	0	0	4	1	0	1	0	0	0
16:15	0	0	2	0	0	0	0	0	0
16:30	0	0	1	0	0	0	1	0	0
16:45	0	0	1	2	0	1	0	0	0
17:00	0	0	2	1	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0
	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9
15:30	0	0	0	1	0	8	8	9	7
15:45	0	1	0	3	0	12	9	12	12
16:00	0	0	0	2	0	25	21	15	16
16:15	0	0	0	9	0	23	14	16	8
16:30	0	1	0	3	0	19	25	13	9
16:45	0	0	0	2	0	21	12	9	12
17:00	0	0	0	5	0	15	17	17	10
17:15	0	0	0	1	0	17	9	16	8
	4-1	4-2	4-3	4-4	4-5	4-6	4-7	4-8	4-9
15:30	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0
	5-1	5-2	5-3	5-4	5-5	5-6	5-7	5-8	5-9
15:30	0	0	4	0	0	23	27	37	0
15:45	0	0	3	0	0	15	25	42	0
16:00	0	0	6	0	0	21	28	41	2
16:15	0	0	3	0	0	18	25	44	2
16:30	0	0	7	0	0	19	32	46	0
16:45	0	0	3	0	0	21	22	31	1
17:00	0	0	4	0	0	22	17	33	1
17:15	0	0	2	0	0	9	20	36	0
	6-1	6-2	6-3	6-4	6-5	6-6	6-7	6-8	6-9
15:30	0	0	24	44	0	0	18	56	34
15:45	0	0	23	35	0	0	21	51	43
16:00	0	0	32	46	0	0	23	78	46
16:15	0	0	42	88	0	0	24	71	51
16:30	0	0	25	92	0	0	12	75	65
16:45	0	0	33	86	0	0	17	77	68
17:00	0	0	21	79	0	0	21	51	52
17:15	0	0	23	82	0	0	13	53	44
	7-1	7-2	7-3	7-4	7-5	7-6	7-7	7-8	7-9
15:30	0	0	14	10	0	1	0	8	12
15:45	0	0	17	15	0	1	0	9	11
16:00	0	0	18	19	0	1	0	7	19
16:15	0	0	15	22	0	1	0	10	20
16:30	0	0	22	21	0	5	0	3	11
16:45	0	0	28	28	0	2	0	6	16
17:00	0	0	16	20	0	1	0	12	10
17:15	0	0	19	15	0	0	0	9	7
	8-1	8-2	8-3	8-4	8-5	8-6	8-7	8-8	8-9
15:30	0	1	45	116	0	47	9	0	13
15:45	0	2	58	105	0	55	3	0	15
16:00	0	0	49	107	0	58	9	0	47
16:15	0	2	58	119	0	65	7	0	41
16:30	0	0	37	115	0	50	5	0	55
16:45	0	3	48	105	0	62	7	0	52
17:00	0	1	45	117	0	74	8	0	41
17:15	0	1	33	92	0	70	4	0	46
	9-1	9-2	9-3	9-4	9-5	9-6	9-7	9-8	9-9
15:30	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0



WEST VAIL RAMPS / FRONTAGE RD DEC 30TH 2004

Peak	15:30-16:15	16:15-17:00	17:00-17:15
2577	572	711	697
2702	597	697	735
2840	697	735	680
2809	711	680	660

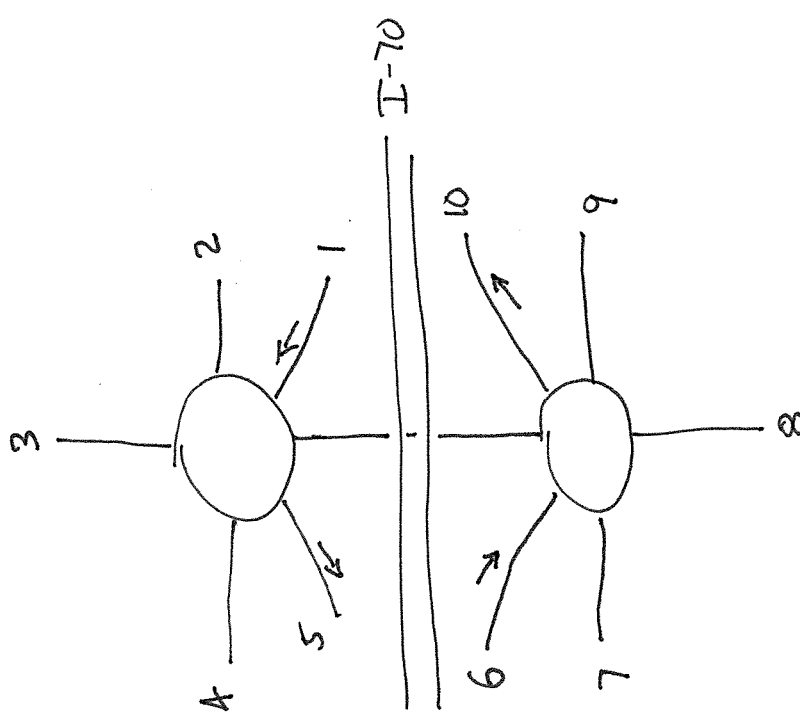
	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8		
15:30	0	47	3	1	0	0	1	0	1	0	0	0	0	0	6	8	82	0	25	0
15:45	0	53	5	2	0	0	1	0	2	0	0	0	0	0	8	12	75	0	33	0
16:00	0	63	5	0	0	0	2	0	1	0	0	0	0	0	5	11	87	0	47	0
16:15	0	44	6	1	2	0	0	1	1	0	0	0	0	11	8	89	0	45	0	0
16:30	0	51	4	2	1	0	0	1	0	0	0	0	0	4	7	91	0	36	2	0
16:45	0	67	6	2	1	0	0	0	2	0	0	0	0	9	12	100	0	39	2	0
17:00	0	45	3	1	0	0	0	0	3	0	0	0	0	12	9	86	0	22	3	0
17:15	0	49	3	1	0	0	0	0	2	0	0	0	0	7	4	91	0	34	5	0
Sum Mvmt																				
Peak	0	225	21	5	3	0	2	2	5	0	0	0	29	38	367	0	167	7		
10-1	10-2	10-3	10-4	10-5	10-6	10-7	10-8	10-9	10-10											
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum Mvmt																				
Peak	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	2-9	2-10	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	4-1	4-2	4-3	4-4	4-5	4-6	
15:30	35	15	0	0	0	0	13	0	4	0	1	2	0	2	1	0	4	0	
15:45	37	11	0	0	0	0	16	0	5	0	1	3	0	7	2	0	8	0	
16:00	48	21	0	0	0	0	18	0	4	0	1	3	0	4	1	0	11	0	
16:15	50	23	0	0	0	0	15	0	3	0	1	2	0	4	0	0	11	0	
16:30	42	34	0	0	0	0	11	0	6	0	0	1	0	7	1	0	10	0	
16:45	64	32	0	0	0	0	14	0	2	1	2	0	0	6	1	0	9	0	
17:00	71	33	0	0	0	0	19	0	2	0	1	0	0	5	0	0	5	0	
17:15	47	12	0	0	0	0	10	0	1	0	1	0	1	0	1	0	0	8	0
Sum Mvmt																			
Peak	204	110	0	0	0	0	58	0	15	1	4	6	0	21	3	0	41	0	

	4-7	4-8	4-9	4-10	5-1	5-2	5-3	5-4	5-5	5-6	5-7	5-8	5-9	5-10	6-1	6-2	6-3	6-4	
15:30	0	0	7	2	0	0	0	0	0	0	0	0	0	0	0	77	0	0	
15:45	0	0	8	2	0	0	0	0	0	0	0	0	0	0	0	87	2	0	
16:00	0	0	5	1	0	0	0	0	0	0	0	0	0	0	0	116	2	0	
16:15	0	0	14	1	0	0	0	0	0	0	0	0	0	0	0	72	5	0	
16:30	1	0	9	1	0	0	0	0	0	0	0	0	0	0	0	109	1	0	
16:45	1	0	12	4	0	0	0	0	0	0	0	0	0	0	0	78	0	0	
17:00	0	0	7	3	0	0	0	0	0	0	0	0	0	0	0	89	0	0	
17:15	0	0	5	2	0	0	0	0	0	0	0	0	0	0	0	86	2	1	
Sum Mvmt																			
Peak	2	0	40	7	0	0	0	0	0	0	0	0	0	0	0	0	375	8	0

	6-5	6-6	6-7	6-8	6-9	6-10	7-1	7-2	7-3	7-4	7-5	7-6	7-7	7-8	7-9	7-10	8-1	8-2	
15:30	0	0	0	0	0	55	0	0	14	0	0	0	0	0	0	14	2	0	0
15:45	0	0	0	0	0	47	0	0	10	0	0	0	0	0	0	15	2	0	0
16:00	0	0	0	0	0	52	0	0	22	2	0	0	0	0	0	14	2	0	0
16:15	0	0	0	0	0	45	0	0	18	1	0	1	0	0	1	11	4	0	3
16:30	0	0	2	1	48	0	0	0	32	1	0	1	0	0	1	16	1	0	2
16:45	0	0	1	0	48	0	0	0	21	0	0	0	0	0	0	13	1	0	0
17:00	0	0	1	0	43	1	0	33	0	0	0	0	0	0	0	14	0	0	0
17:15	0	0	0	0	50	1	0	29	0	2	2	0	0	1	10	0	0	0	1
Sum Mvmt																			
Peak	0	0	3	1	193	0	0	93	4	0	4	0	0	0	2	54	8	0	5

	8-3	8-4	8-5	8-6	8-7	8-8	8-9	8-10	9-1	9-2	9-3	9-4	9-5	9-6	9-7	9-8	9-9	9-10	
15:30	0	0	0	2	0	0	0	2	1	0	55	3	1	75	0	6	3	0	2
15:45	0	0	2	0	0	0	2	1	0	42	3	1	81	0	5	2	0	1	0
16:00	0	0	1	0	0	0	0	1	0	51	4	1	90	0	7	2	0	0	0
16:15	0	0	0	0	0	0	3	0	0	65	5	4	99	0	8	1	0	19	0
16:30	0	0	0	0	0	1	0	5	2	0	45	2	2	87	0	12	1	0	3
16:45	1	0	1	0	1	0	1	0	1	0	55	3	2	111	0	6	1	0	3
17:00	0	1	0	0	0	1	0	0	0	44	3	1	102	0	7	2	0	8	0
17:15	0	1	0	0	0	0	0	0	0	51	2	3	121	0	6	1	0	6	0
Sum Mvmt																			
Peak	1	0	2	0	2	0	9	4	0	216	14	9	387	0	33	5	0	25	0



Vail December 2005 - West Roundabout (North)

WB I-70 off-ramps								
	1-1	1-2	1-3	1-4	1-5	1-6	total	
15:30	0	51	8	2	0	12	73	
15:45	0	48	7	2	0	25	82	
16:00	0	57	9	1	1	23	91	
16:15	0	65	10	5	1	28	109	355
16:30	0	42	8	3	0	21	74	356
16:45	0	51	10	2	0	32	95	369
17:00	0	59	8	1	1	24	93	371
17:15	0	60	7	4	0	18	89	351

WB N Frontage Rd								
	2-1	2-2	2-3	2-4	2-5	2-6	total	
15:30	0	0	9	10	93	26	138	
15:45	0	0	12	11	96	27	146	
16:00	0	0	11	15	93	34	153	
16:15	0	0	15	12	99	22	148	585
16:30	0	0	12	11	91	30	144	591
16:45	0	0	18	12	92	26	148	593
17:00	0	0	10	10	108	30	158	598
17:15	0	0	14	14	90	25	143	593

SB Chamonix Rd								
	3-1	3-2	3-3	3-4	3-5	3-6	total	
15:30	0	0	0	1	22	9	32	
15:45	0	1	0	0	18	8	27	
16:00	0	2	0	0	10	9	21	
16:15	0	5	0	0	14	10	29	109
16:30	0	4	0	1	5	11	21	98
16:45	0	2	0	1	8	12	23	94
17:00	0	3	0	0	6	7	16	89
17:15	0	1	0	0	10	11	22	82

EB N Frontage Rd								
	4-1	4-2	4-3	4-4	4-5	4-6	total	
15:30	0	2	1	0	6	0	9	
15:45	0	6	0	0	4	1	11	
16:00	0	5	1	0	1	0	7	
16:15	0	8	0	0	2	0	10	37
16:30	0	6	0	0	4	0	10	38
16:45	0	5	1	0	4	1	11	38
17:00	0	4	0	0	5	0	9	40
17:15	0	5	0	0	6	1	12	42

NB Chamonix Rd							
	6-1	6-2	6-3	6-4	6-5	total	
15:30	0	51	8	1	74	134	
15:45	0	72	8	2	124	206	
16:00	0	68	7	0	136	211	
16:15	0	88	3	1	142	234	785
16:30	0	74	9	1	127	211	862
16:45	0	66	10	1	135	212	868
17:00	0	81	5	1	128	215	872
17:15	0	86	7	1	117	211	849

Total								
	all-1	all-2	all-3	all-4	all-5	all-6	total	
15:30	0	104	26	14	195	47	386	
15:45	0	127	27	15	242	61	472	
16:00	0	132	28	16	241	66	483	
16:15	0	166	28	18	258	60	530	1871
16:30	0	126	29	16	227	62	460	1945
16:45	0	124	39	16	239	71	489	1962
17:00	0	147	23	12	248	61	491	1970
17:15	0	152	28	19	223	55	477	1917

Vail December 2005 - West Roundabout (South)

SB Chamonix Rd							
	1-1	1-2	1-3	1-4	1-5	1-6	total
15:30	0	0	9	5	21	0	35
15:45	0	0	12	2	22	1	37
16:00	0	0	5	1	37	1	44
16:15	0	0	15	0	44	2	61
16:30	0	0	8	1	34	2	45
16:45	0	0	16	0	48	2	66
17:00	0	0	3	3	66	1	73
17:15	0	0	15	3	71	1	90

EB I-70 off-ramps							
	2-1	2-2	2-3	2-4	2-5	2-6	total
15:30	86	0	0	1	34	0	121
15:45	85	0	2	0	44	0	131
16:00	62	0	1	0	51	1	115
16:15	79	0	1	1	47	1	129
16:30	81	0	2	1	35	0	119
16:45	62	0	2	4	42	0	110
17:00	50	0	1	3	42	0	96
17:15	55	0	1	1	51	1	109

EB S Frontage Rd							
	3-1	3-2	3-3	3-4	3-5	3-6	total
15:30	1	0	0	0	3	2	6
15:45	0	0	0	0	5	4	9
16:00	0	0	0	0	2	1	3
16:15	1	0	0	1	4	2	8
16:30	2	0	0	0	8	3	13
16:45	1	0	0	0	5	2	8
17:00	3	0	0	0	1	2	6
17:15	1	0	0	0	2	1	4

NB Chamonix Rd (hotel drive)							
	4-1	4-2	4-3	4-4	4-5	4-6	total
15:30	0	0	0	0	0	0	0
15:45	0	0	0	0	1	0	1
16:00	0	0	0	0	2	1	3
16:15	0	0	1	0	2	1	4
16:30	0	0	0	0	2	0	2
16:45	0	0	0	0	1	0	1
17:00	0	0	0	0	2	0	2
17:15	0	0	0	0	1	0	1

WB S Frontage Rd							
	5-1	5-2	5-3	5-4	5-5	5-6	total
15:30	48	0	1	0	0	2	51
15:45	121	0	0	1	0	5	127
16:00	149	0	4	0	0	4	157
16:15	155	0	5	1	0	2	163
16:30	130	0	8	2	0	2	142
16:45	150	0	7	0	0	5	162
17:00	165	0	3	1	0	8	177
17:15	156	0	2	0	0	7	165

Total							
	all-1	all-2	all-3	all-4	all-5	all-6	total
15:30	135	0	10	6	58	4	213
15:45	206	0	14	3	72	10	305
16:00	211	0	10	1	92	8	322
16:15	235	0	22	3	97	8	365
16:30	213	0	18	4	79	7	321
16:45	213	0	25	4	96	9	347
17:00	218	0	7	7	111	11	354
17:15	212	0	18	4	125	10	369

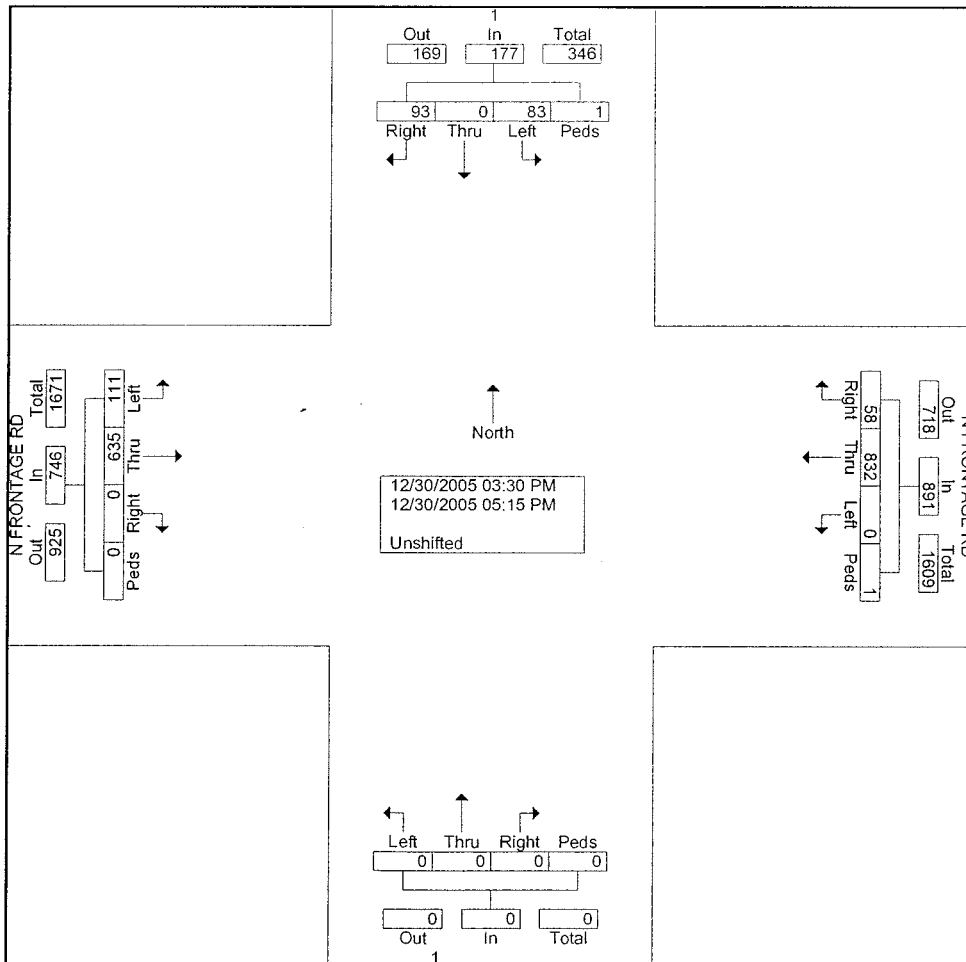


All Traffic Data Services, Inc
 9660 W 44th Ave
 Wheat Ridge, CO 80033
 www.alltrafficdata.net

File Name : DRIVEWAY1&NFRONTM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 1

Groups Printed- Unshifted

Start Time	1 Southbound				N FRONTAGE RD Westbound				1 Northbound				N FRONTAGE RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
03:30 PM	12	0	11	0	0	98	9	0	0	0	0	0	14	64	0	0	208
03:45 PM	19	0	13	1	0	107	15	0	0	0	0	0	15	82	0	0	252
Total	31	0	24	1	0	205	24	0	0	0	0	0	29	146	0	0	460
04:00 PM	10	0	7	0	0	85	7	0	0	0	0	0	15	61	0	0	185
04:15 PM	11	0	7	0	0	100	7	0	0	0	0	0	12	89	0	0	226
04:30 PM	8	0	15	0	0	93	9	0	0	0	0	0	12	86	0	0	223
04:45 PM	7	0	13	0	0	110	5	1	0	0	0	0	10	86	0	0	232
Total	36	0	42	0	0	388	28	1	0	0	0	0	49	322	0	0	866
05:00 PM	11	0	17	0	0	108	2	0	0	0	0	0	27	85	0	0	250
05:15 PM	5	0	10	0	0	131	4	0	0	0	0	0	6	82	0	0	238
Grand Total	83	0	93	1	0	832	58	1	0	0	0	0	111	635	0	0	1814
Apprch %	46.9	0	52.5	0.6	0	93.4	6.5	0.1	0	0	0	0	14.9	85.1	0	0	
Total %	4.6	0	5.1	0.1	0	45.9	3.2	0.1	0	0	0	0	6.1	35	0	0	

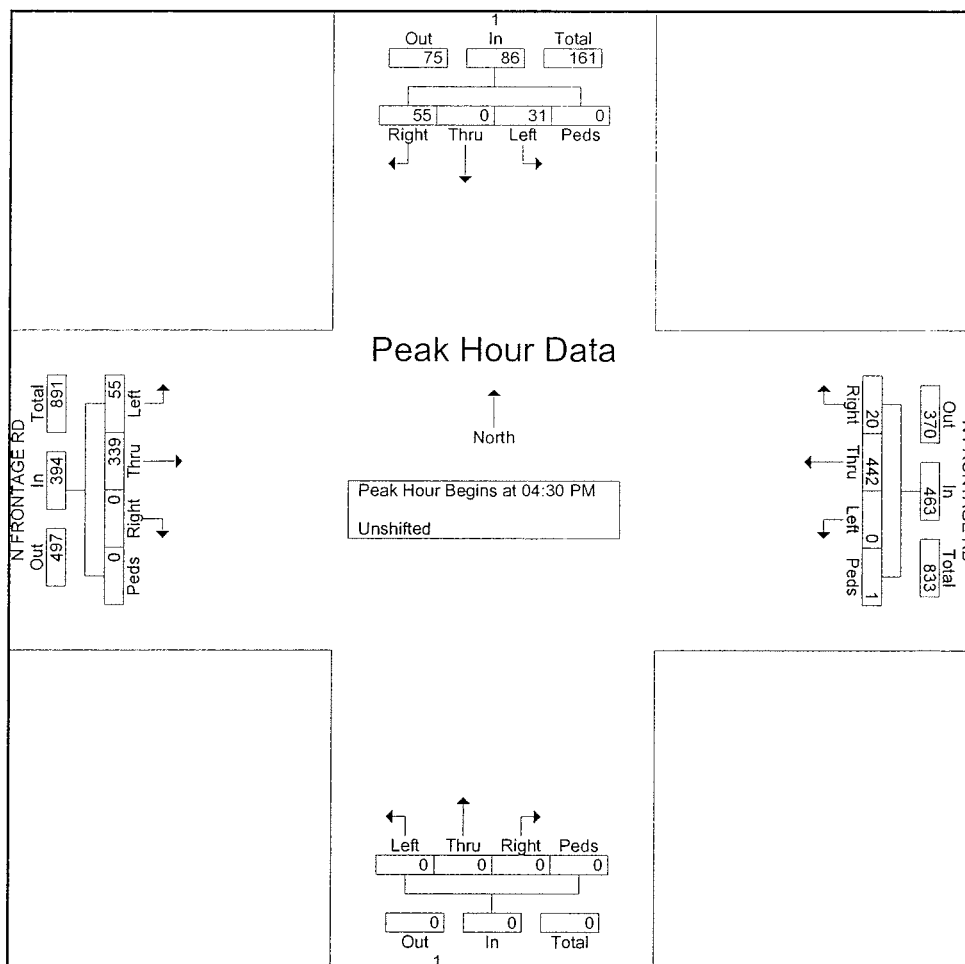




All Traffic Data Services, Inc
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File Name : DRIVEWAY1&NFRONTM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 2

Start Time	1 Southbound					N FRONTAGE RD Westbound					1 Northbound					N FRONTAGE RD Eastbound					Int. 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	
Peak Hour Analysis From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	8	0	15	0	23	0	93	9	0	102	0	0	0	0	0	12	86	0	0	98	223
04:45 PM	7	0	13	0	20	0	110	5	1	116	0	0	0	0	0	10	86	0	0	96	232
05:00 PM	11	0	17	0	28	0	108	2	0	110	0	0	0	0	0	27	85	0	0	112	250
05:15 PM	5	0	10	0	15	0	131	4	0	135	0	0	0	0	0	6	82	0	0	88	238
Total Volume	31	0	55	0	86	0	442	20	1	463	0	0	0	0	0	55	339	0	0	394	943
% App. Total	36	0	64	0		0	95.5	4.3	0.2		0	0	0	0		14	86	0	0		
PHF	.705	.000	.809	.000	.768	.000	.844	.556	.250	.857	.000	.000	.000	.000	.000	.509	.985	.000	.000	.879	.943



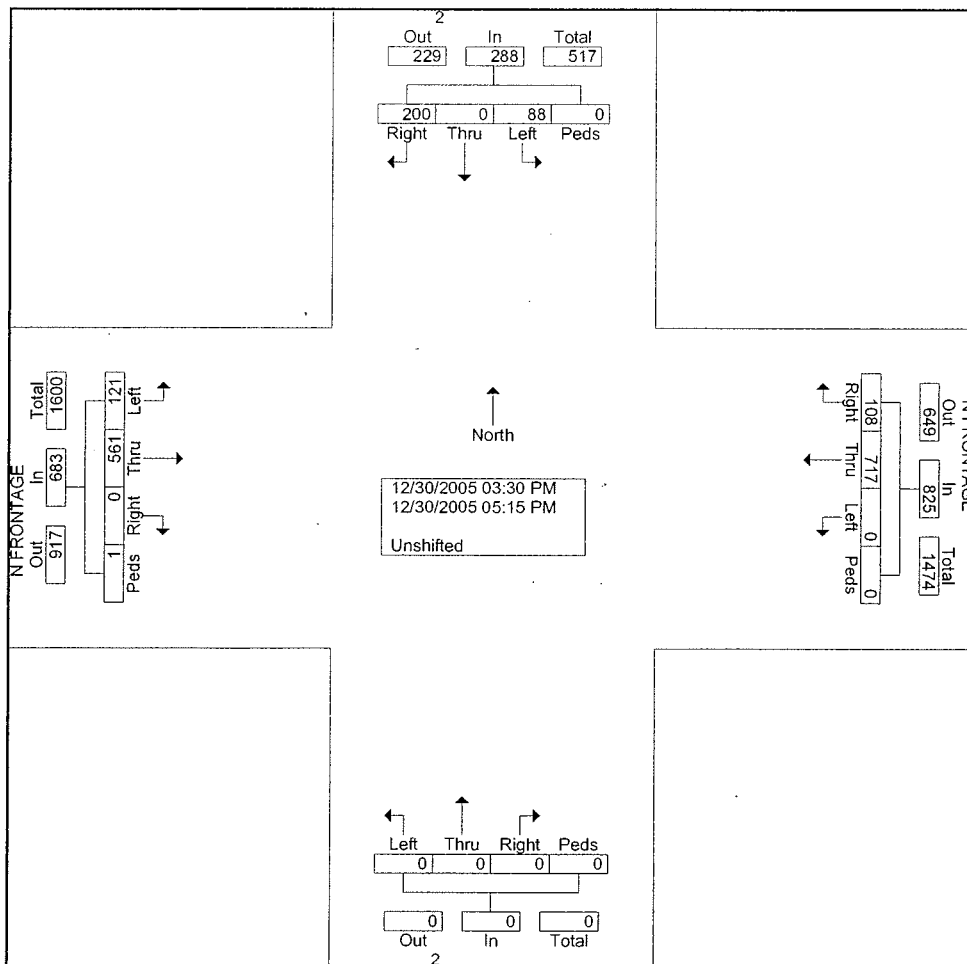


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File Name : DRIVEWAY2&NFRONTPM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 1

Groups Printed- Unshifted

Start Time	2 Southbound				N FRONTAGE Westbound				2 Northbound				N FRONTAGE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
03:30 PM	6	0	29	0	0	78	23	0	0	0	0	0	17	51	0	0	204
03:45 PM	12	0	36	0	0	88	16	0	0	0	0	0	12	82	0	0	246
Total	18	0	65	0	0	166	39	0	0	0	0	0	29	133	0	0	450
04:00 PM	16	0	14	0	0	80	11	0	0	0	0	0	17	54	0	1	193
04:15 PM	17	0	25	0	0	84	14	0	0	0	0	0	18	80	0	0	238
04:30 PM	14	0	25	0	0	81	18	0	0	0	0	0	19	70	0	0	227
04:45 PM	11	0	36	0	0	86	8	0	0	0	0	0	11	73	0	0	225
Total	58	0	100	0	0	331	51	0	0	0	0	0	65	277	0	1	883
05:00 PM	6	0	16	0	0	97	10	0	0	0	0	0	14	77	0	0	220
05:15 PM	6	0	19	0	0	123	8	0	0	0	0	0	13	74	0	0	243
Grand Total	88	0	200	0	0	717	108	0	0	0	0	0	121	561	0	1	1796
Apprch %	30.6	0	69.4	0	0	86.9	13.1	0	0	0	0	0	17.7	82.1	0	0.1	
Total %	4.9	0	11.1	0	0	39.9	6	0	0	0	0	0	6.7	31.2	0	0.1	

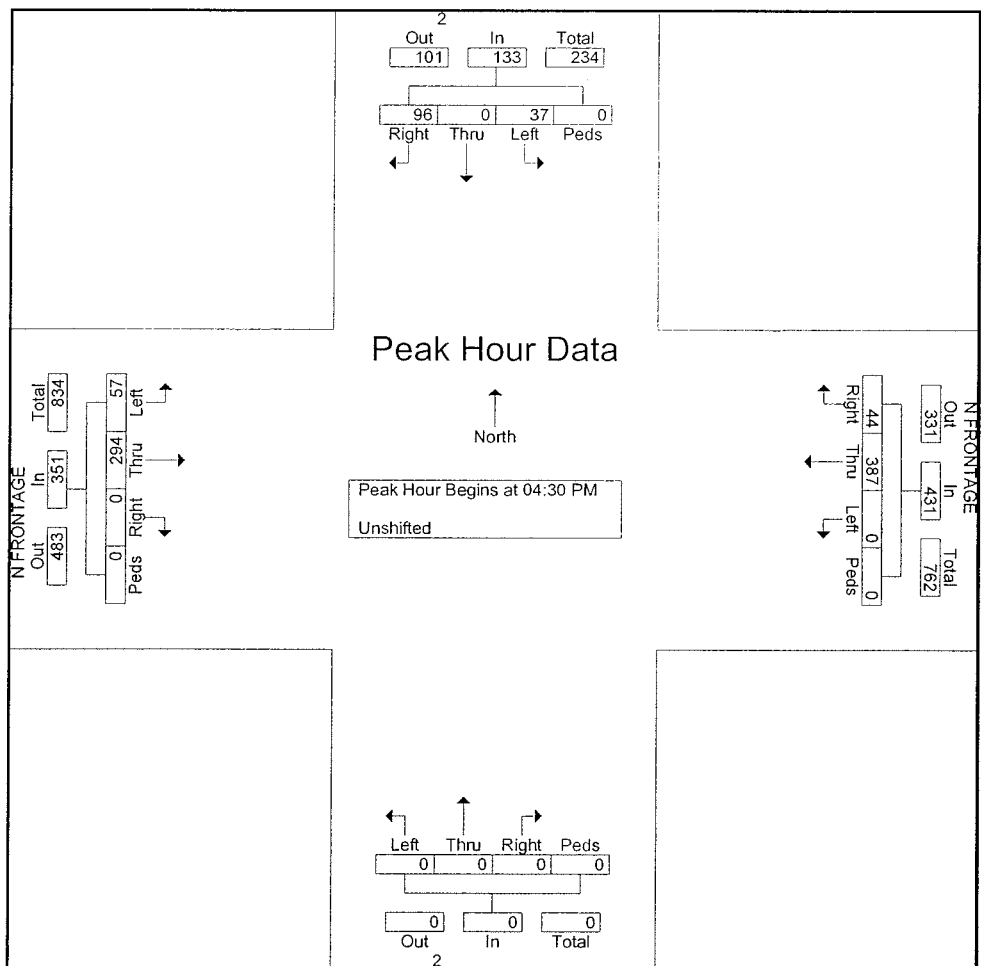




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File Name : DRIVEWAY2&NFRONTM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 2

Start Time	2 Southbound					N FRONTAGE Westbound					2 Northbound					N FRONTAGE Eastbound					Int. 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	
Peak Hour Analysis From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	14	0	25	0	39	0	81	18	0	99	0	0	0	0	0	19	70	0	0	89	227
04:45 PM	11	0	36	0	47	0	86	8	0	94	0	0	0	0	0	11	73	0	0	84	225
05:00 PM	6	0	16	0	22	0	97	10	0	107	0	0	0	0	0	14	77	0	0	91	220
05:15 PM	6	0	19	0	25	0	123	8	0	131	0	0	0	0	0	13	74	0	0	87	243
Total Volume	37	0	96	0	133	0	387	44	0	431	0	0	0	0	0	57	294	0	0	351	915
% App. Total	27.8	0	72.2	0		0	89.8	10.2	0		0	0	0	0		16.2	83.8	0	0		
PHF	.661	.000	.667	.000	.707	.000	.787	.611	.000	.823	.000	.000	.000	.000	.000	.750	.955	.000	.000	.964	.941



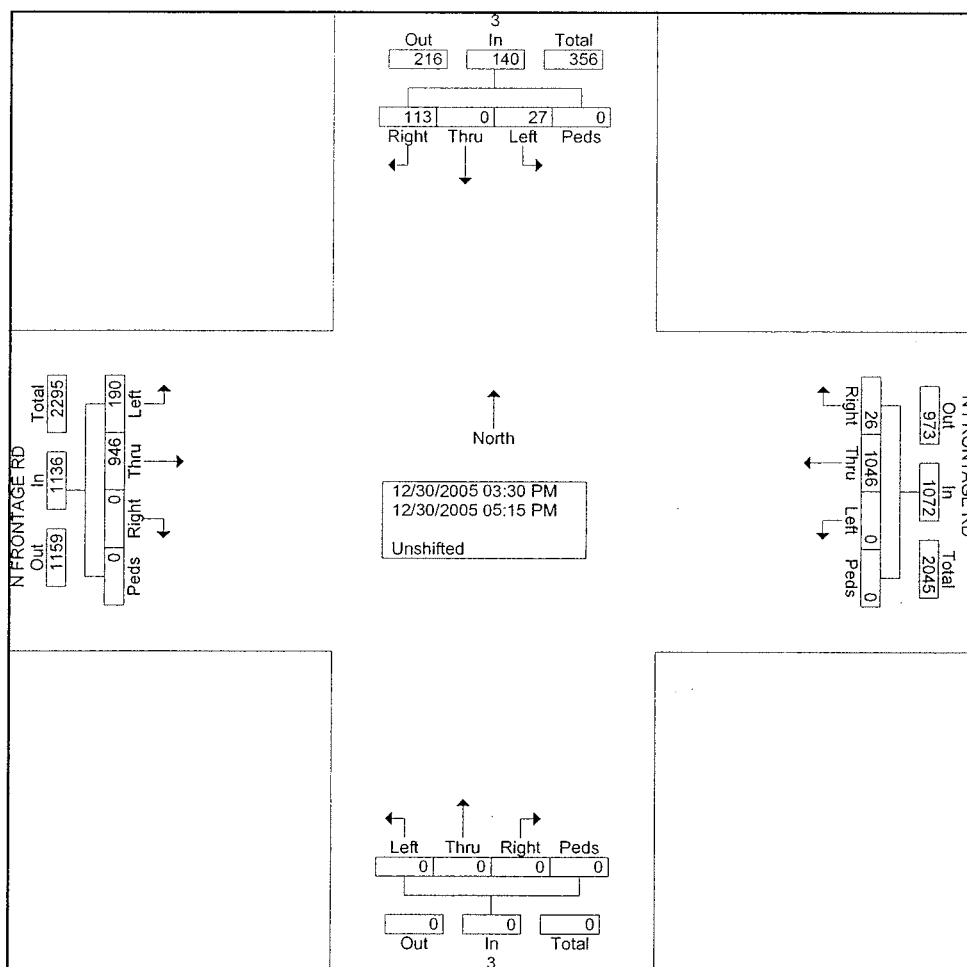


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File Name : DRIVEWAY3&NFRONTPM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 1

Groups Printed- Unshifted

Start Time	3 Southbound				N FRONTAGE RD Westbound				3 Northbound				N FRONTAGE RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
03:30 PM	3	0	14	0	0	118	3	0	0	0	0	0	22	91	0	0	251
03:45 PM	6	0	11	0	0	129	3	0	0	0	0	0	22	113	0	0	284
Total	9	0	25	0	0	247	6	0	0	0	0	0	44	204	0	0	535
04:00 PM	4	0	20	0	0	134	2	0	0	0	0	0	25	107	0	0	292
04:15 PM	1	0	20	0	0	125	4	0	0	0	0	0	25	117	0	0	292
04:30 PM	1	0	14	0	0	119	3	0	0	0	0	0	27	140	0	0	304
04:45 PM	3	0	8	0	0	133	4	0	0	0	0	0	21	124	0	0	293
Total	9	0	62	0	0	511	13	0	0	0	0	0	98	488	0	0	1181
05:00 PM	6	0	14	0	0	135	5	0	0	0	0	0	17	141	0	0	318
05:15 PM	3	0	12	0	0	153	2	0	0	0	0	0	31	113	0	0	314
Grand Total	27	0	113	0	0	1046	26	0	0	0	0	0	190	946	0	0	2348
Approch %	19.3	0	80.7	0	0	97.6	2.4	0	0	0	0	0	16.7	83.3	0	0	
Total %	1.1	0	4.8	0	0	44.5	1.1	0	0	0	0	0	8.1	40.3	0	0	

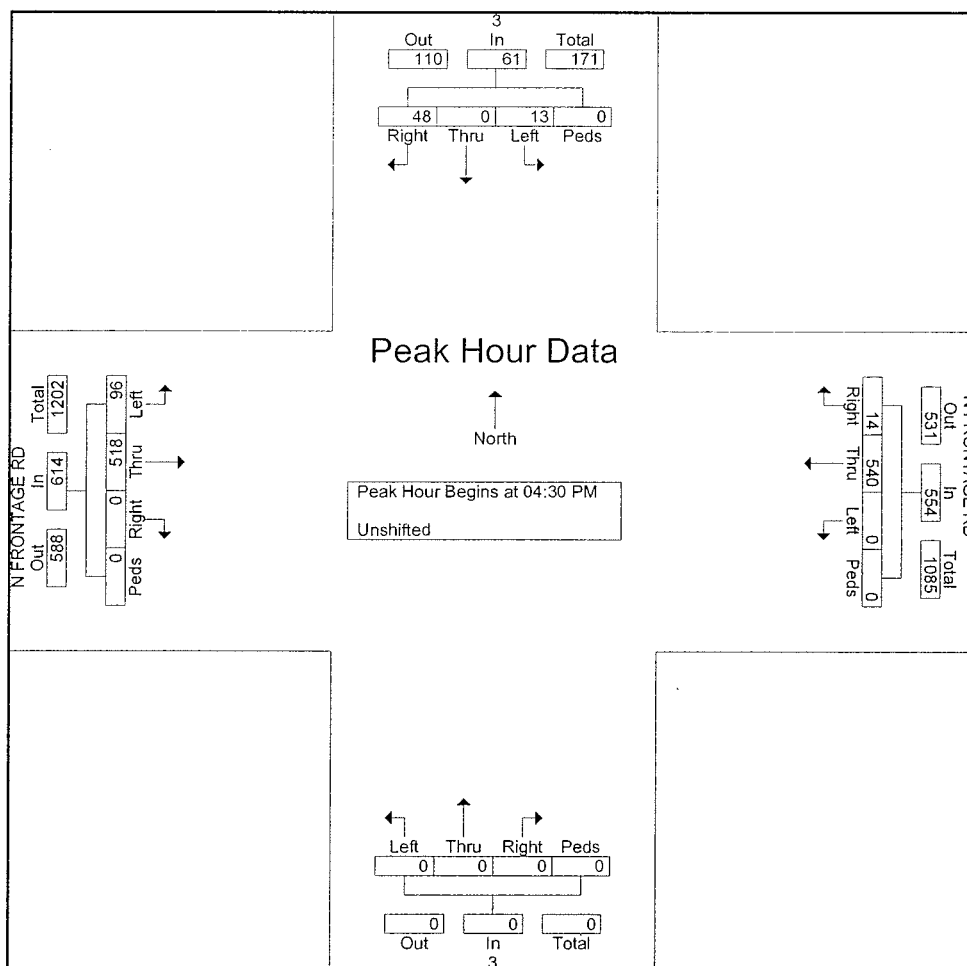




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File Name : DRIVEWAY3&NFRONTM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 2

Start Time	3 Southbound					N FRONTAGE RD Westbound					3 Northbound					N FRONTAGE RD Eastbound					Int. 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	
Peak Hour Analysis From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	1	0	14	0	15	0	119	3	0	122	0	0	0	0	0	27	140	0	0	167	304
04:45 PM	3	0	8	0	11	0	133	4	0	137	0	0	0	0	0	21	124	0	0	145	293
05:00 PM	6	0	14	0	20	0	135	5	0	140	0	0	0	0	0	17	141	0	0	158	318
05:15 PM	3	0	12	0	15	0	153	2	0	155	0	0	0	0	0	31	113	0	0	144	314
Total Volume	13	0	48	0	61	0	540	14	0	554	0	0	0	0	0	96	518	0	0	614	1229
% App. Total	21.3	0	78.7	0		0	97.5	2.5	0		0	0	0	0		15.6	84.4	0	0		
PHF	.542	.000	.857	.000	.763	.000	.882	.700	.000	.894	.000	.000	.000	.000	.000	.774	.918	.000	.000	.919	.966



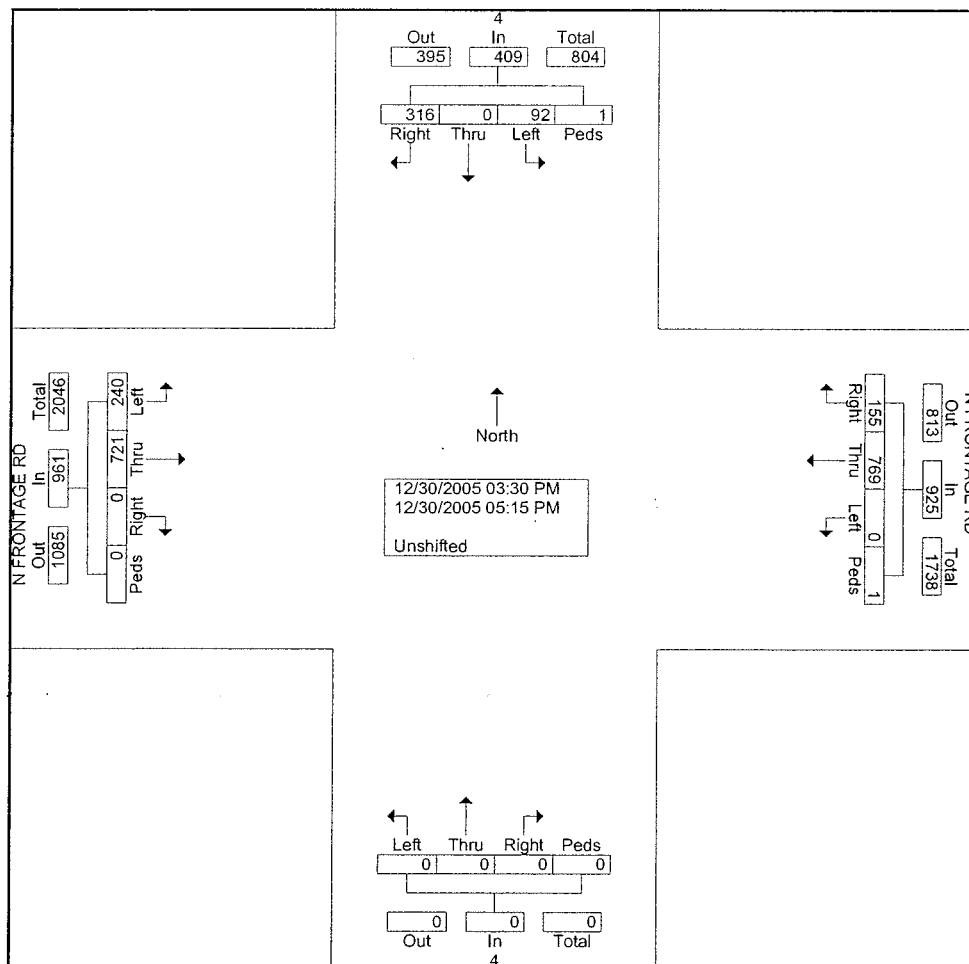


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File Name : DRIVEWAY4&NFRONTPM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 1

Groups Printed- Unshifted

Start Time	4 Southbound				N FRONTAGE RD Westbound				4 Northbound				N FRONTAGE RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
03:30 PM	13	0	38	0	0	84	8	0	0	0	0	0	28	64	0	0	235
03:45 PM	13	0	39	0	0	94	27	0	0	0	0	0	26	89	0	0	288
Total	26	0	77	0	0	178	35	0	0	0	0	0	54	153	0	0	523
04:00 PM	5	0	44	0	0	97	12	0	0	0	0	0	29	80	0	0	267
04:15 PM	13	0	38	0	0	94	20	1	0	0	0	0	21	98	0	0	285
04:30 PM	6	0	34	0	0	89	15	0	0	0	0	0	33	107	0	0	284
04:45 PM	15	0	37	0	0	102	26	0	0	0	0	0	30	96	0	0	306
Total	39	0	153	0	0	382	73	1	0	0	0	0	113	381	0	0	1142
05:00 PM	9	0	31	0	0	110	22	0	0	0	0	0	33	113	0	0	318
05:15 PM	18	0	55	1	0	99	25	0	0	0	0	0	40	74	0	0	312
Grand Total	92	0	316	1	0	769	155	1	0	0	0	0	240	721	0	0	2295
Apprch %	22.5	0	77.3	0.2	0	83.1	16.8	0.1	0	0	0	0	25	75	0	0	
Total %	4	0	13.8	0	0	33.5	6.8	0	0	0	0	0	10.5	31.4	0	0	

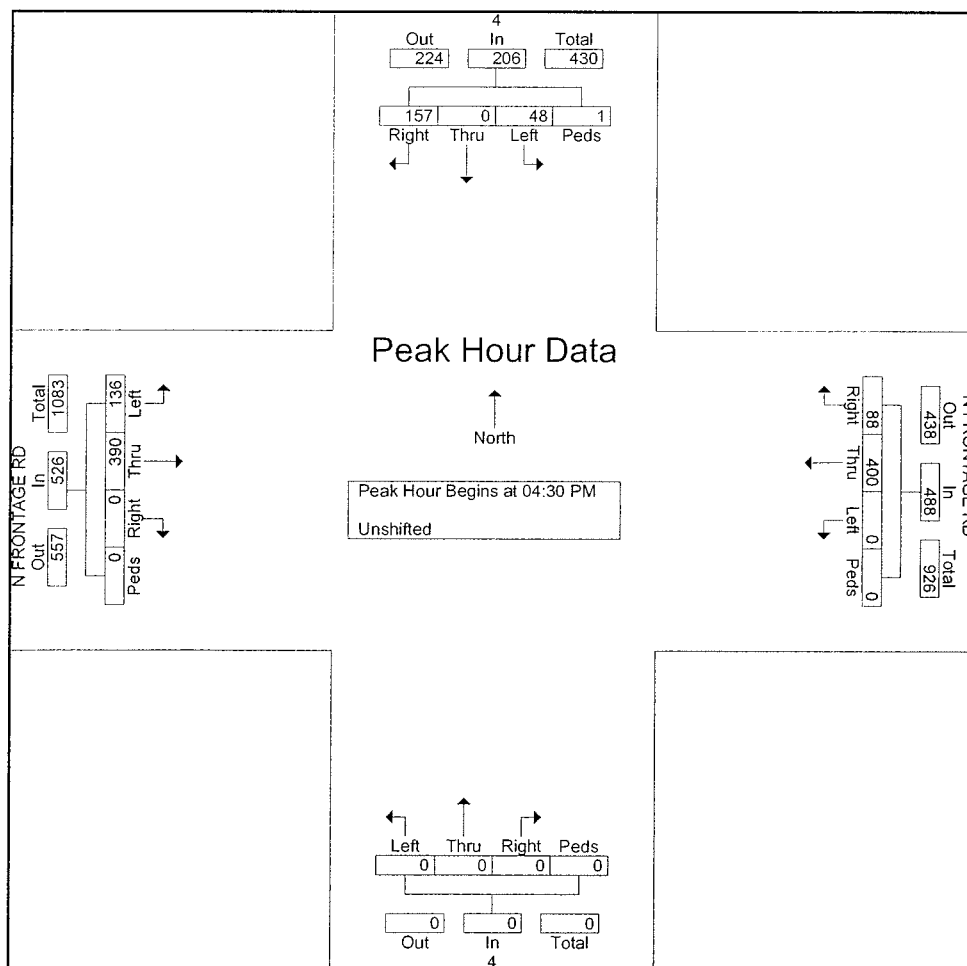




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File Name : DRIVEWAY4&NFRONTM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 2

Start Time	4 Southbound					N FRONTAGE RD Westbound					4 Northbound					N FRONTAGE RD Eastbound					Int. 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	
Peak Hour Analysis From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	6	0	34	0	40	0	89	15	0	104	0	0	0	0	0	33	107	0	0	140	284
04:45 PM	15	0	37	0	52	0	102	26	0	128	0	0	0	0	0	30	96	0	0	126	306
05:00 PM	9	0	31	0	40	0	110	22	0	132	0	0	0	0	0	33	113	0	0	146	318
05:15 PM	18	0	55	1	74	0	99	25	0	124	0	0	0	0	0	40	74	0	0	114	312
Total Volume	48	0	157	1	206	0	400	88	0	488	0	0	0	0	0	136	390	0	0	526	1220
% App. Total	23.3	0	76.2	0.5		0	82	18	0		0	0	0	0		25.9	74.1	0	0		
PHF	.667	.000	.714	.250	.696	.000	.909	.846	.000	.924	.000	.000	.000	.000	.000	.850	.863	.000	.000	.901	.959



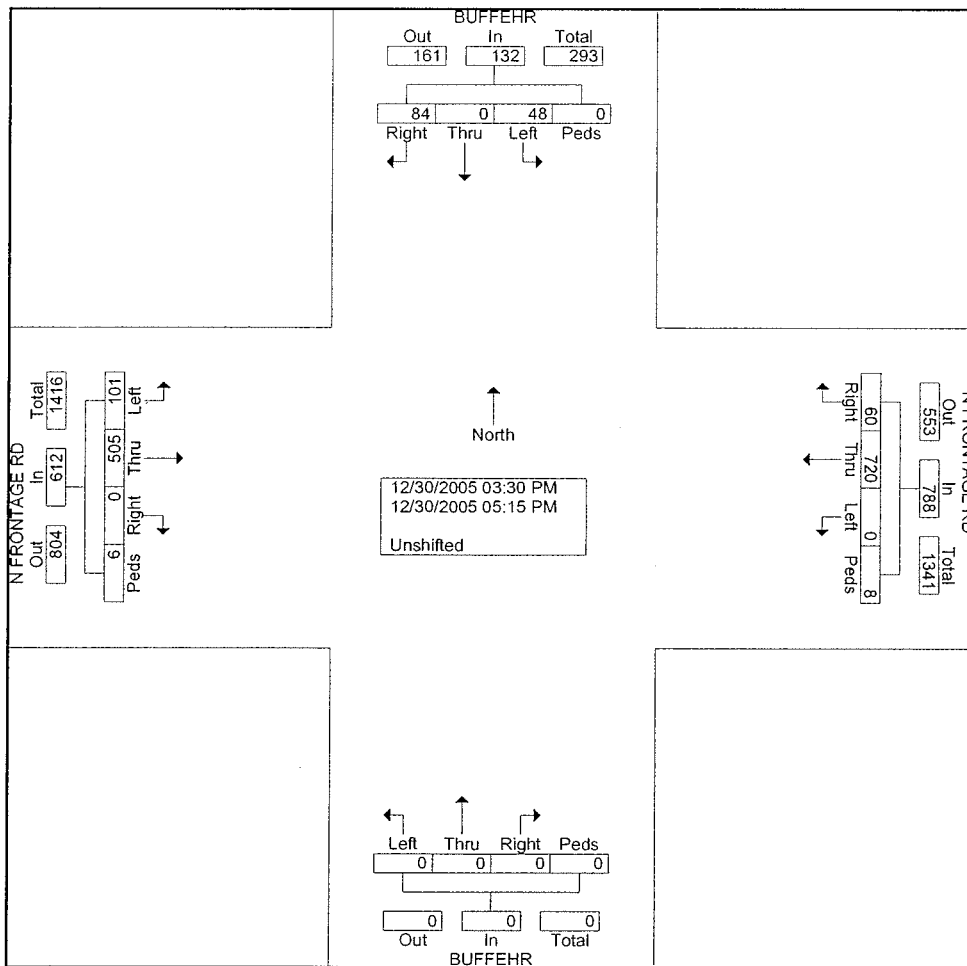


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File Name : BUFFEHR&NFRONTM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 1

Groups Printed- Unshifted

Start Time	BUFFEHR Southbound				N FRONTAGE RD Westbound				BUFFEHR Northbound				N FRONTAGE RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
03:30 PM	7	0	11	0	0	88	5	0	0	0	0	0	8	47	0	2	168
03:45 PM	7	0	15	0	0	88	9	2	0	0	0	0	15	65	0	1	202
Total	14	0	26	0	0	176	14	2	0	0	0	0	23	112	0	3	370
04:00 PM	6	0	12	0	0	89	7	0	0	0	0	0	9	73	0	0	196
04:15 PM	10	0	2	0	0	91	8	0	0	0	0	0	16	68	0	0	195
04:30 PM	9	0	9	0	0	102	8	3	0	0	0	0	9	61	0	0	201
04:45 PM	5	0	11	0	0	89	8	0	0	0	0	0	15	66	0	2	196
Total	30	0	34	0	0	371	31	3	0	0	0	0	49	268	0	2	788
05:00 PM	2	0	11	0	0	88	7	2	0	0	0	0	15	65	0	1	191
05:15 PM	2	0	13	0	0	85	8	1	0	0	0	0	14	60	0	0	183
Grand Total	48	0	84	0	0	720	60	8	0	0	0	0	101	505	0	6	1532
Apprch %	36.4	0	63.6	0	0	91.4	7.6	1	0	0	0	0	16.5	82.5	0	1	
Total %	3.1	0	5.5	0	0	47	3.9	0.5	0	0	0	0	6.6	33	0	0.4	

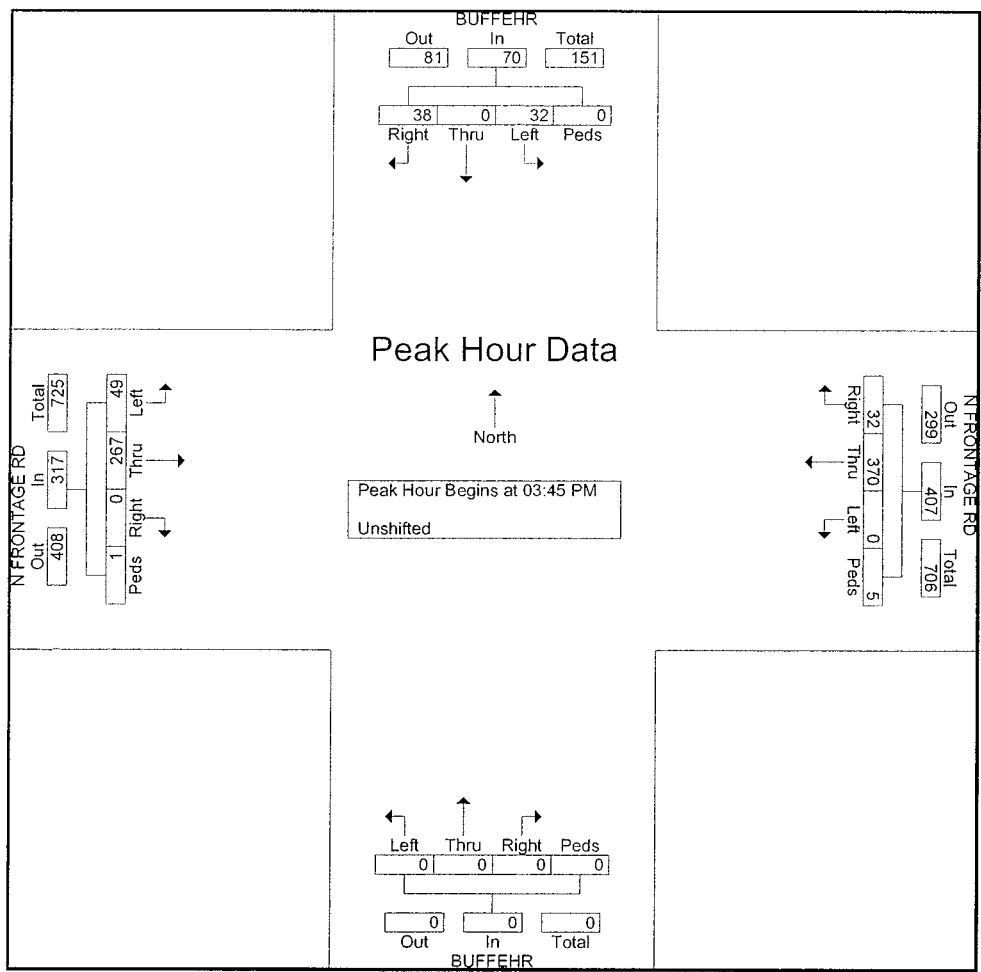




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File Name : BUFFEHR&NFRONTPM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 2

Start Time	BUFFEHR Southbound					N FRONTAGE RD Westbound					BUFFEHR Northbound					N FRONTAGE RD Eastbound					Int. 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	
Peak Hour Analysis From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:45 PM																					
03:45 PM	7	0	15	0	22	0	88	9	2	99	0	0	0	0	0	15	65	0	1	81	202
04:00 PM	6	0	12	0	18	0	89	7	0	96	0	0	0	0	0	9	73	0	0	82	196
04:15 PM	10	0	2	0	12	0	91	8	0	99	0	0	0	0	0	16	68	0	0	84	195
04:30 PM	9	0	9	0	18	0	102	8	3	113	0	0	0	0	0	9	61	0	0	70	201
Total Volume	32	0	38	0	70	0	370	32	5	407	0	0	0	0	0	49	267	0	1	317	794
% App. Total	45.7	0	54.3	0		0	90.9	7.9	1.2		0	0	0	0		15.5	84.2	0	0.3		
PHF	.800	.000	.633	.000	.795	.000	.907	.889	.417	.900	.000	.000	.000	.000	.000	.766	.914	.000	.250	.943	.983



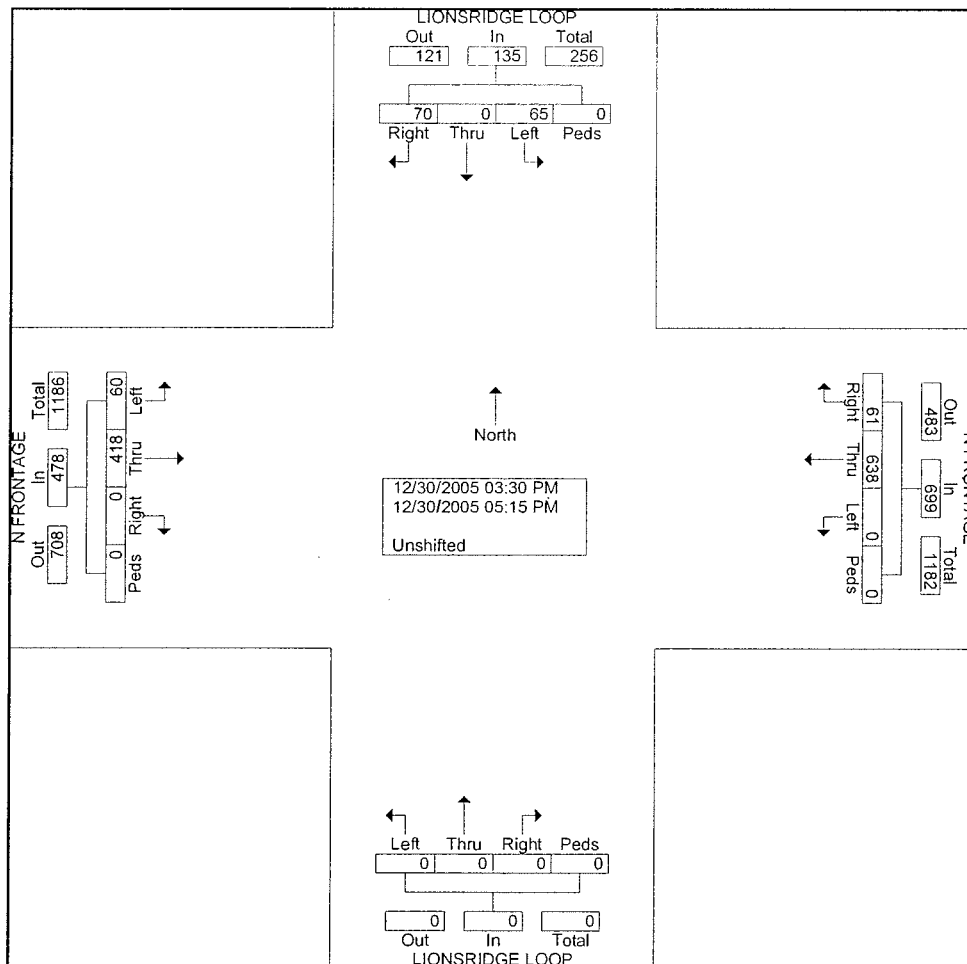


All Traffic Data Services, Inc
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File Name : LIONSRIDGE&NFRONTPM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 1

Groups Printed- Unshifted

Start Time	LIONSRIDGE LOOP Southbound				N FRONTAGE Westbound				LIONSRIDGE LOOP Northbound				N FRONTAGE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
03:30 PM	9	0	9	0	0	68	6	0	0	0	0	0	9	44	0	0	145
03:45 PM	10	0	7	0	0	73	7	0	0	0	0	0	7	49	0	0	153
Total	19	0	16	0	0	141	13	0	0	0	0	0	16	93	0	0	298
04:00 PM	4	0	6	0	0	78	4	0	0	0	0	0	8	69	0	0	169
04:15 PM	10	0	12	0	0	95	9	0	0	0	0	0	6	60	0	0	192
04:30 PM	10	0	10	0	0	99	7	0	0	0	0	0	10	47	0	0	183
04:45 PM	7	0	4	0	0	78	7	0	0	0	0	0	6	50	0	0	152
Total	31	0	32	0	0	350	27	0	0	0	0	0	30	226	0	0	696
05:00 PM	8	0	8	0	0	81	10	0	0	0	0	0	8	56	0	0	171
05:15 PM	7	0	14	0	0	66	11	0	0	0	0	0	6	43	0	0	147
Grand Total	65	0	70	0	0	638	61	0	0	0	0	0	60	418	0	0	1312
Apprch %	48.1	0	51.9	0	0	91.3	8.7	0	0	0	0	0	12.6	87.4	0	0	
Total %	5	0	5.3	0	0	48.6	4.6	0	0	0	0	0	4.6	31.9	0	0	

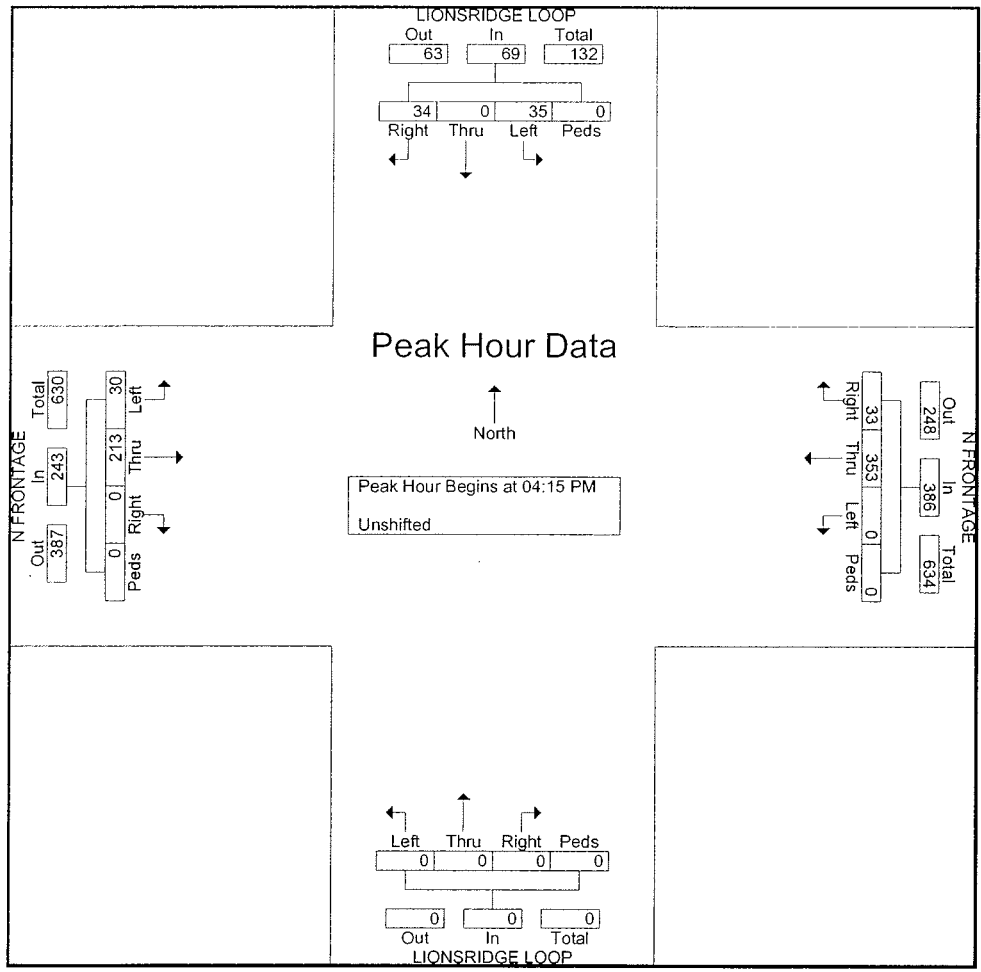




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File Name : LIONSRIDGE&NFRONTM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 2

Start Time	LIONSRIDGE LOOP Southbound					N FRONTAGE Westbound					LIONSRIDGE LOOP Northbound					N FRONTAGE Eastbound					Int. 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	
Peak Hour Analysis From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	10	0	12	0	22	0	95	9	0	104	0	0	0	0	0	6	60	0	0	66	192
04:30 PM	10	0	10	0	20	0	99	7	0	106	0	0	0	0	0	10	47	0	0	57	183
04:45 PM	7	0	4	0	11	0	78	7	0	85	0	0	0	0	0	6	50	0	0	56	152
05:00 PM	8	0	8	0	16	0	81	10	0	91	0	0	0	0	0	8	56	0	0	64	171
Total Volume	35	0	34	0	69	0	353	33	0	386	0	0	0	0	0	30	213	0	0	243	698
% App. Total	50.7	0	49.3	0		0	91.5	8.5	0		0	0	0	0		12.3	87.7	0	0		
PHF	.875	.000	.708	.000	.784	.000	.891	.825	.000	.910	.000	.000	.000	.000	.000	.750	.888	.000	.000	.920	.909



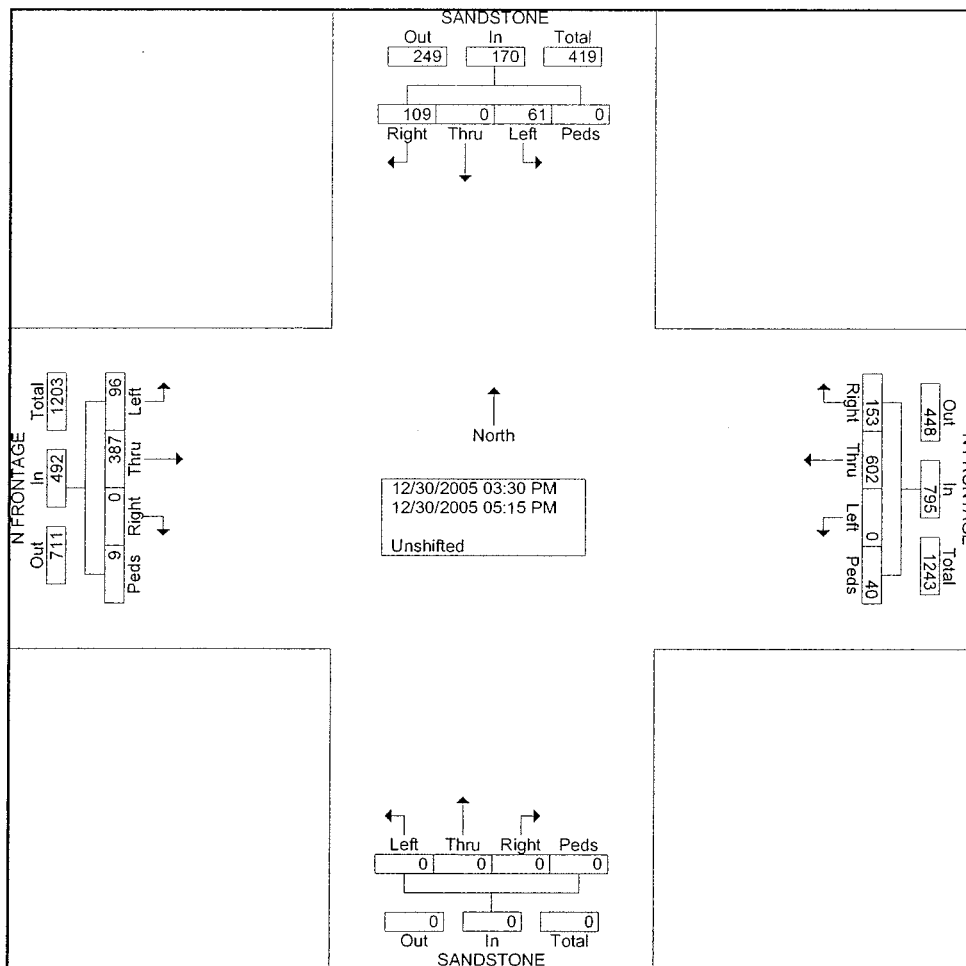


All Traffic Data Services, Inc
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File Name : SANDSTONE&NFRONTPM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 1

Groups Printed- Unshifted

Start Time	SANDSTONE Southbound				N FRONTAGE Westbound				SANDSTONE Northbound				N FRONTAGE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
03:30 PM	9	0	13	0	0	61	10	0	0	0	0	0	9	44	0	0	146
03:45 PM	13	0	16	0	0	64	25	3	0	0	0	0	9	50	0	3	183
Total	22	0	29	0	0	125	35	3	0	0	0	0	18	94	0	3	329
04:00 PM	7	0	14	0	0	76	17	5	0	0	0	0	15	58	0	0	192
04:15 PM	4	0	7	0	0	97	19	3	0	0	0	0	14	56	0	4	204
04:30 PM	7	0	24	0	0	84	19	15	0	0	0	0	12	45	0	0	206
04:45 PM	7	0	9	0	0	76	25	7	0	0	0	0	11	46	0	0	181
Total	25	0	54	0	0	333	80	30	0	0	0	0	52	205	0	4	783
05:00 PM	4	0	15	0	0	76	21	5	0	0	0	0	13	51	0	0	185
05:15 PM	10	0	11	0	0	68	17	2	0	0	0	0	13	37	0	2	160
Grand Total	61	0	109	0	0	602	153	40	0	0	0	0	96	387	0	9	1457
Apprch %	35.9	0	64.1	0	0	75.7	19.2	5	0	0	0	0	19.5	78.7	0	1.8	
Total %	4.2	0	7.5	0	0	41.3	10.5	2.7	0	0	0	0	6.6	26.6	0	0.6	

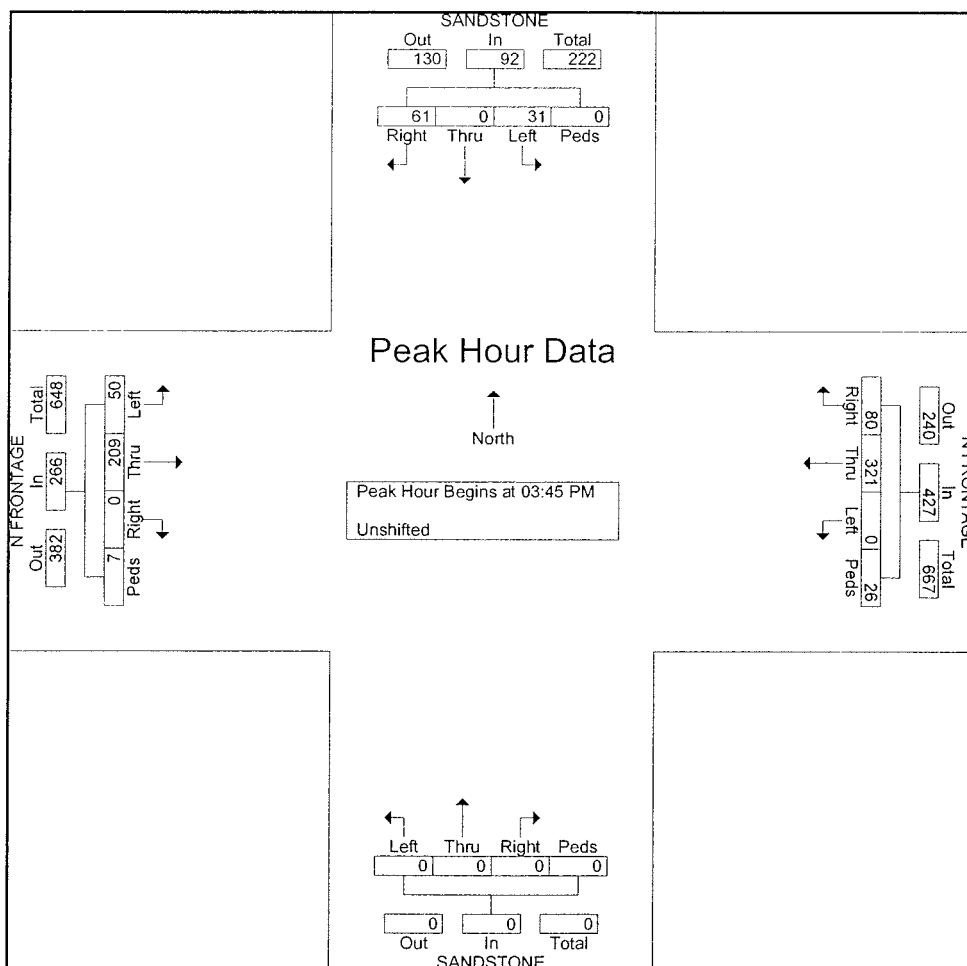




All Traffic Data Services, Inc
 9660 W 44th Ave
 Wheat Ridge, CO 80033
 www.alltrafficdata.net

File Name : SANDSTONE&NFRONTPM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 2

Start Time	SANDSTONE Southbound					N FRONTAGE Westbound					SANDSTONE Northbound					N FRONTAGE Eastbound					Int. 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	
Peak Hour Analysis From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:45 PM																					
03:45 PM	13	0	16	0	29	0	64	25	3	92	0	0	0	0	0	9	50	0	3	62	183
04:00 PM	7	0	14	0	21	0	76	17	5	98	0	0	0	0	0	15	58	0	0	73	192
04:15 PM	4	0	7	0	11	0	97	19	3	119	0	0	0	0	0	14	56	0	4	74	204
04:30 PM	7	0	24	0	31	0	84	19	15	118	0	0	0	0	0	12	45	0	0	57	206
Total Volume	31	0	61	0	92	0	321	80	26	427	0	0	0	0	0	50	209	0	7	266	785
% App. Total	33.7	0	66.3	0		0	75.2	18.7	6.1		0	0	0	0		18.8	78.6	0	2.6		
PHF	.596	.000	.635	.000	.742	.000	.827	.800	.433	.897	.000	.000	.000	.000	.000	.833	.901	.000	.438	.899	.953



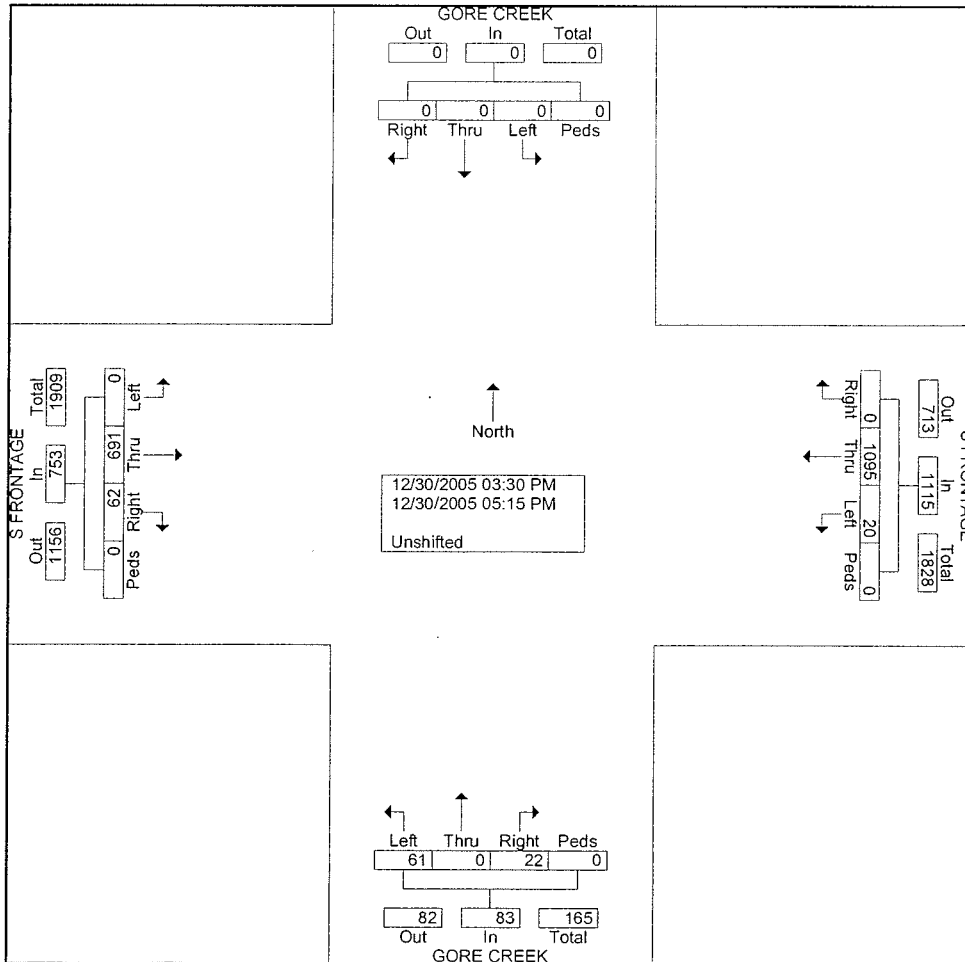


All Traffic Data Services, Inc
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File Name : GORECREEK&SFRONTPM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 1

Groups Printed- Unshifted

Start Time	GORE CREEK Southbound				S FRONTAGE Westbound				GORE CREEK Northbound				S FRONTAGE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
03:30 PM	0	0	0	0	1	120	0	0	7	0	3	0	0	81	8	0	220
03:45 PM	0	0	0	0	3	112	0	0	2	0	2	0	0	88	7	0	214
Total	0	0	0	0	4	232	0	0	9	0	5	0	0	169	15	0	434
04:00 PM	0	0	0	0	1	144	0	0	14	0	2	0	0	92	6	0	259
04:15 PM	0	0	0	0	5	129	0	0	8	0	1	0	0	75	5	0	223
04:30 PM	0	0	0	0	2	132	0	0	9	0	4	0	0	71	5	0	223
04:45 PM	0	0	0	0	3	148	0	0	7	0	6	0	0	93	9	0	266
Total	0	0	0	0	11	553	0	0	38	0	13	0	0	331	25	0	971
05:00 PM	0	0	0	0	2	157	0	0	11	0	3	0	0	94	13	0	280
05:15 PM	0	0	0	0	3	153	0	0	3	0	1	0	0	97	9	0	266
Grand Total	0	0	0	0	20	1095	0	0	61	0	22	0	0	691	62	0	1951
Apprch %	0	0	0	0	1.8	98.2	0	0	73.5	0	26.5	0	0	91.8	8.2	0	
Total %	0	0	0	0	1	56.1	0	0	3.1	0	1.1	0	0	35.4	3.2	0	

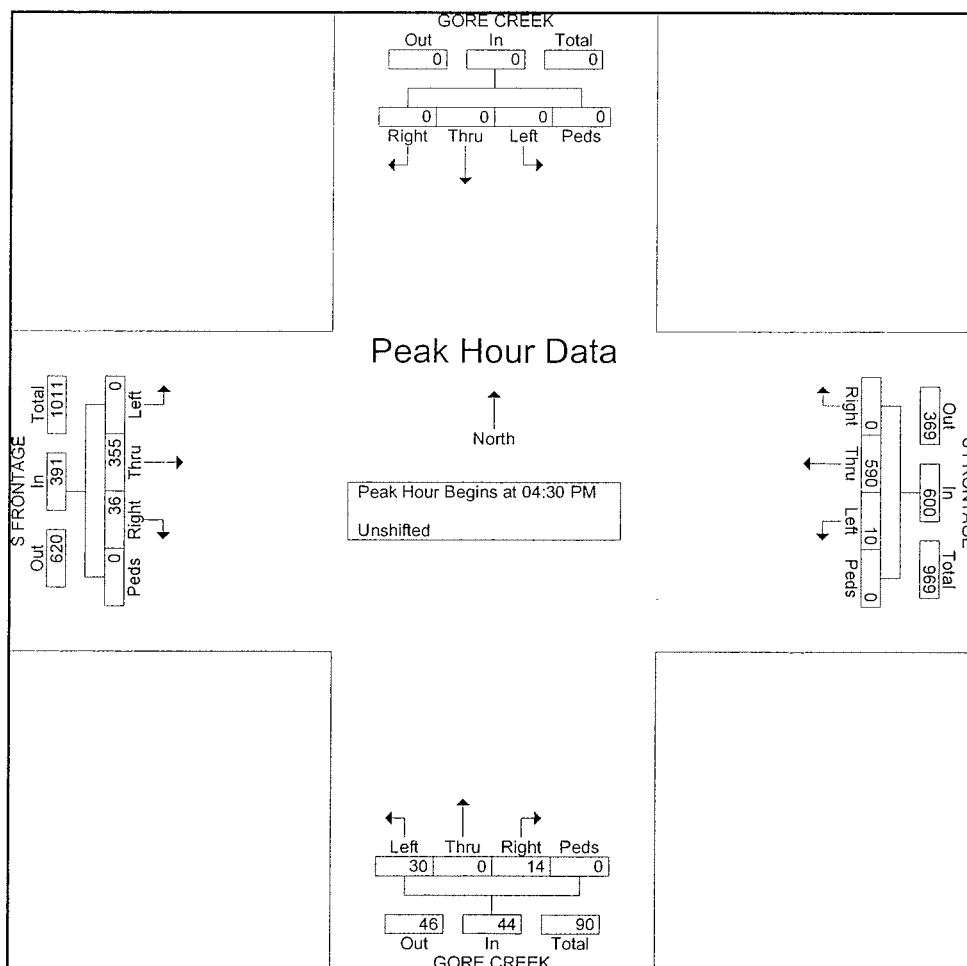




All Traffic Data Services, Inc
 9660 W 44th Ave
 Wheat Ridge, CO 80033
 www.alltrafficdata.net

File Name : GORECREEK&SFRONTPM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 2

Start Time	GORE CREEK Southbound					S FRONTAGE Westbound					GORE CREEK Northbound					S FRONTAGE Eastbound					Int. 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	
Peak Hour Analysis From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	2	132	0	0	134	9	0	4	0	13	0	71	5	0	76	223
04:45 PM	0	0	0	0	0	3	148	0	0	151	7	0	6	0	13	0	93	9	0	102	266
05:00 PM	0	0	0	0	0	2	157	0	0	159	11	0	3	0	14	0	94	13	0	107	280
05:15 PM	0	0	0	0	0	3	153	0	0	156	3	0	1	0	4	0	97	9	0	106	266
Total Volume	0	0	0	0	0	10	590	0	0	600	30	0	14	0	44	0	355	36	0	391	1035
% App. Total	0	0	0	0	0	1.7	98.3	0	0		68.2	0	31.8	0		0	90.8	9.2	0		
PHF	.000	.000	.000	.000	.000	.833	.939	.000	.000	.943	.682	.000	.583	.000	.786	.000	.915	.692	.000	.914	.924



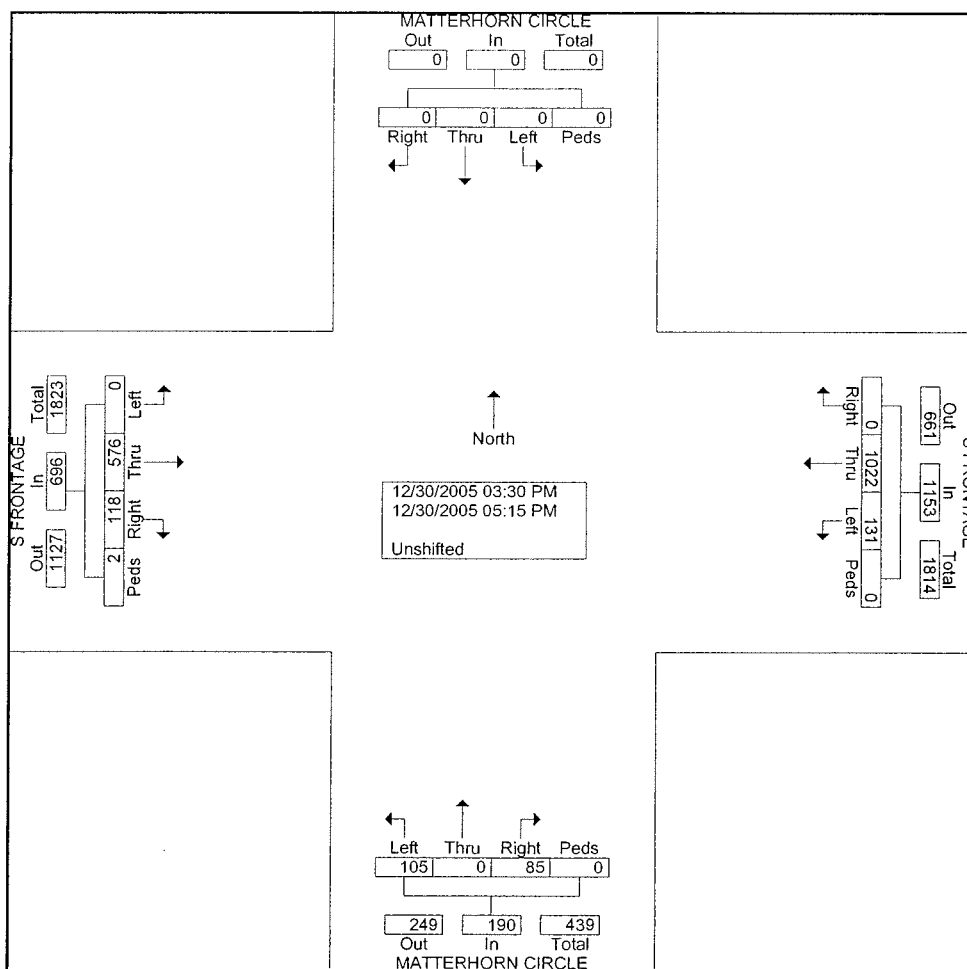


All Traffic Data Services, Inc
 9660 W 44th Ave
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File Name : MATTERHORN&SFRONTPM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 1

Groups Printed- Unshifted

Start Time	MATTERHORN CIRCLE Southbound				S FRONTAGE Westbound				MATTERHORN CIRCLE Northbound				S FRONTAGE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
03:30 PM	0	0	0	0	9	105	0	0	14	0	12	0	0	79	9	0	228
03:45 PM	0	0	0	0	16	103	0	0	10	0	18	0	0	76	8	0	231
Total	0	0	0	0	25	208	0	0	24	0	30	0	0	155	17	0	459
04:00 PM	0	0	0	0	15	141	0	0	8	0	11	0	0	83	9	0	267
04:15 PM	0	0	0	0	24	127	0	0	7	0	15	0	0	59	13	0	245
04:30 PM	0	0	0	0	16	129	0	0	19	0	10	0	0	61	18	2	255
04:45 PM	0	0	0	0	21	139	0	0	15	0	5	0	0	80	19	0	279
Total	0	0	0	0	76	536	0	0	49	0	41	0	0	283	59	2	1046
05:00 PM	0	0	0	0	11	137	0	0	22	0	5	0	0	68	19	0	262
05:15 PM	0	0	0	0	19	141	0	0	10	0	9	0	0	70	23	0	272
Grand Total	0	0	0	0	131	1022	0	0	105	0	85	0	0	576	118	2	2039
Apprch %	0	0	0	0	11.4	88.6	0	0	55.3	0	44.7	0	0	82.8	17	0.3	
Total %	0	0	0	0	6.4	50.1	0	0	5.1	0	4.2	0	0	28.2	5.8	0.1	

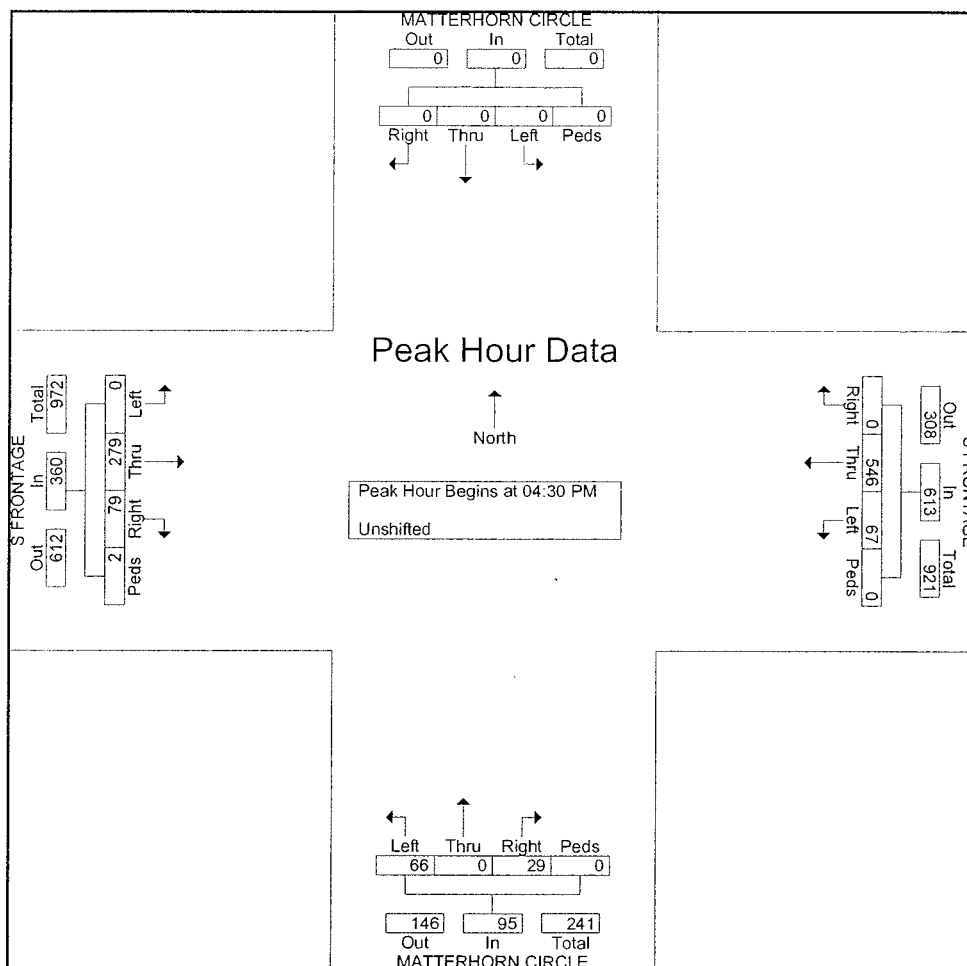




All Traffic Data Services, Inc
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File Name : MATTERHORN&SFRONTPM
 Site Code : 00000000
 Start Date : 12/30/2005
 Page No : 2

Start Time	MATTERHORN CIRCLE Southbound					S FRONTAGE Westbound					MATTERHORN CIRCLE Northbound					S FRONTAGE Eastbound					Int. 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	
Peak Hour Analysis From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	16	129	0	0	145	19	0	10	0	29	0	61	18	2	81	255
04:45 PM	0	0	0	0	0	21	139	0	0	160	15	0	5	0	20	0	80	19	0	99	279
05:00 PM	0	0	0	0	0	11	137	0	0	148	22	0	5	0	27	0	68	19	0	87	262
05:15 PM	0	0	0	0	0	19	141	0	0	160	10	0	9	0	19	0	70	23	0	93	272
Total Volume	0	0	0	0	0	67	546	0	0	613	66	0	29	0	95	0	279	79	2	360	1068
% App. Total	0	0	0	0	0	10.9	89.1	0	0		69.5	0	30.5	0		0	77.5	21.9	0.6		
PHF	.000	.000	.000	.000	.000	.798	.968	.000	.000	.958	.750	.000	.725	.000	.819	.000	.872	.859	.250	.909	.957



All Traffic Data Services, Inc.

9960 W 44th Ave

Wheat Ridge, CO 80033 File Name : WESTHAVEN&SFRONTM

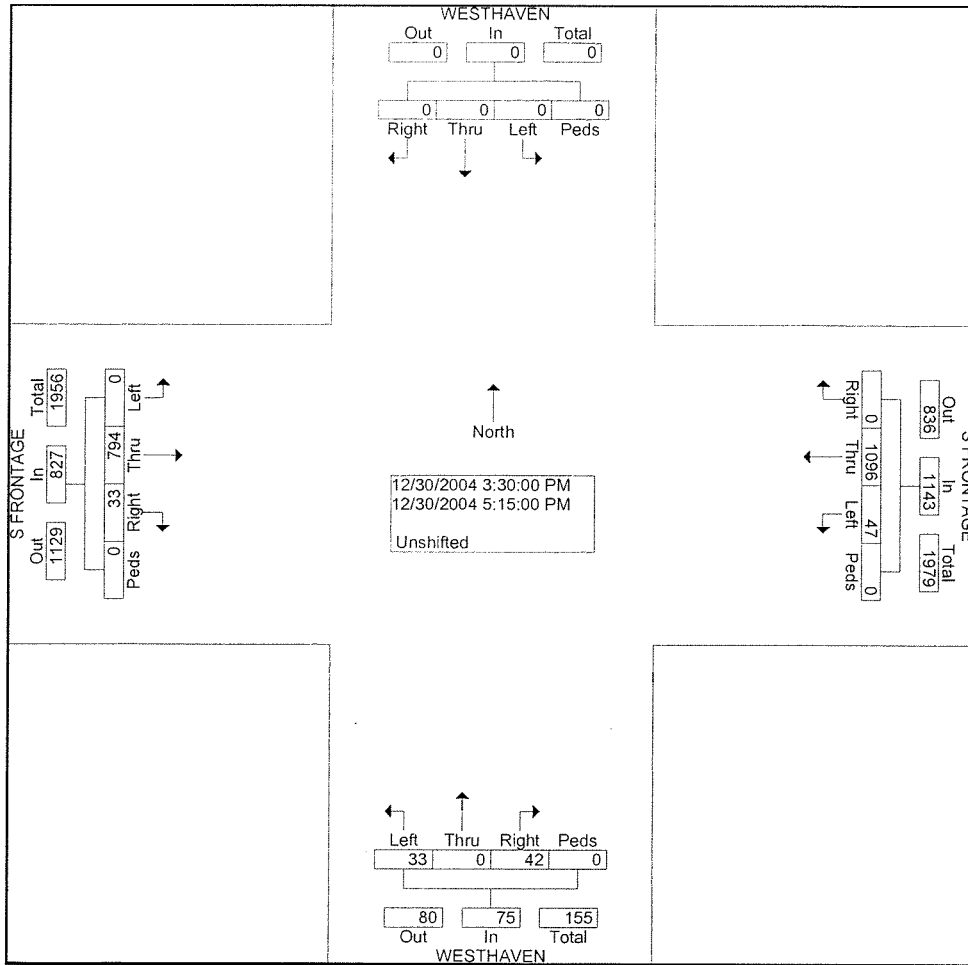
Site Code : 00000000

Start Date : 12/30/2004

Page No : 1

Groups Printed- Unshifted

Start Time	WESTHAVEN Southbound				S FRONTAGE Westbound				WESTHAVEN Northbound				S FRONTAGE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:30 PM	0	0	0	0	2	95	0	0	2	0	3	0	0	101	3	0	206
03:45 PM	0	0	0	0	3	112	0	0	5	0	7	0	0	90	3	0	220
Total	0	0	0	0	5	207	0	0	7	0	10	0	0	191	6	0	426
04:00 PM	0	0	0	0	7	125	0	0	5	0	3	0	0	111	5	0	256
04:15 PM	0	0	0	0	6	152	0	0	6	0	8	0	0	101	3	0	276
04:30 PM	0	0	0	0	7	178	0	0	7	0	8	0	0	87	6	0	293
04:45 PM	0	0	0	0	8	154	0	0	3	0	6	0	0	103	6	0	280
Total	0	0	0	0	28	609	0	0	21	0	25	0	0	402	20	0	1105
05:00 PM	0	0	0	0	7	131	0	0	4	0	5	0	0	112	3	0	262
05:15 PM	0	0	0	0	7	149	0	0	1	0	2	0	0	89	4	0	252
Grand Total	0	0	0	0	47	1096	0	0	33	0	42	0	0	794	33	0	2045
Apprch %	0.0	0.0	0.0	0.0	4.1	95.9	0.0	0.0	44.0	0.0	56.0	0.0	0.0	96.0	4.0	0.0	
Total %	0.0	0.0	0.0	0.0	2.3	53.6	0.0	0.0	1.6	0.0	2.1	0.0	0.0	38.8	1.6	0.0	



All Traffic Data Services, Inc.

9960 W 44th Ave

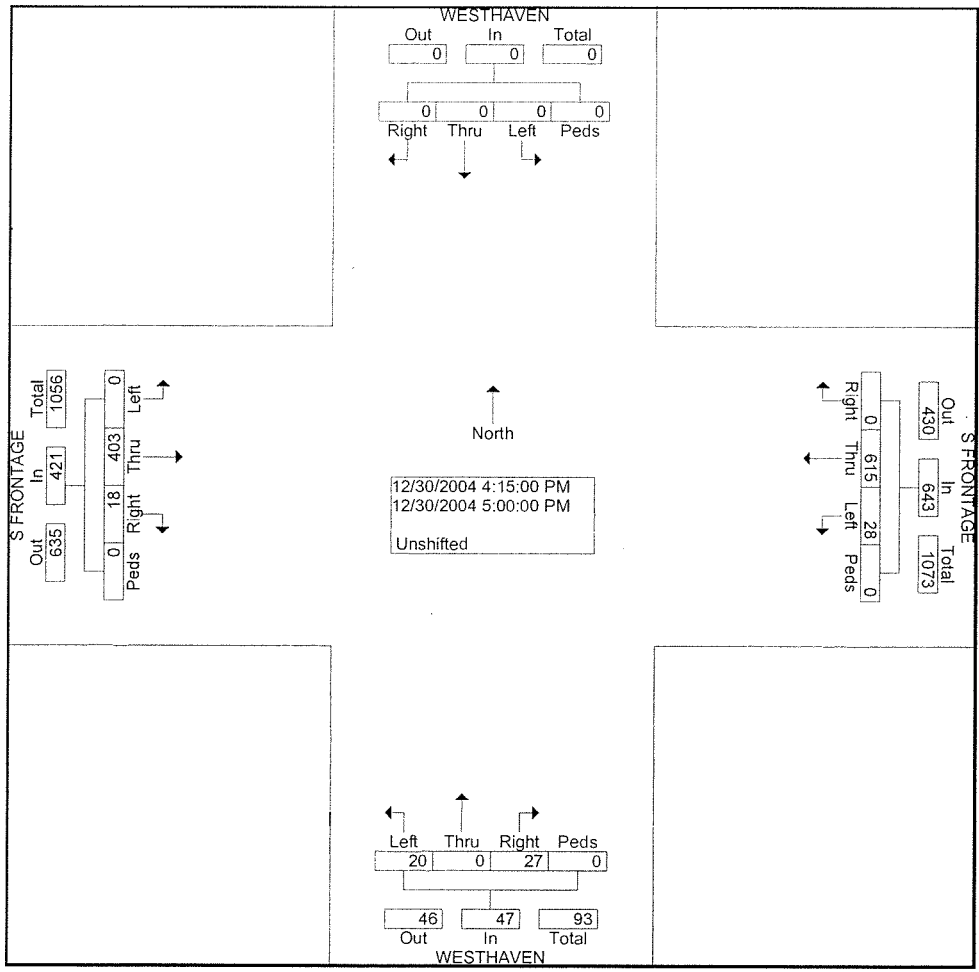
Wheat Ridge, CO 80033 File Name : WESTHAVEN&SFRONTM

Site Code : 00000000

Start Date : 12/30/2004

Page No : 2

Start Time	WESTHAVEN Southbound					S FRONTAGE Westbound					WESTHAVEN Northbound					S FRONTAGE Eastbound					Int. Total
	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Intersection																					
04:15 PM																					
Volume	0	0	0	0	0	28	615	0	0	643	20	0	27	0	47	0	403	18	0	421	1111
Percent	0.0	0.0	0.0	0.0		4.4	95.6	0.0	0.0		42.6	0.0	57.4	0.0		0.0	95.7	4.3	0.0		
04:30																					
Volume	0	0	0	0	0	7	178	0	0	185	7	0	8	0	15	0	87	6	0	93	293
Peak Factor																					
0.948																					
High Int. 3:15:00 PM																					
Volume	0	0	0	0	0	7	178	0	0	185	7	0	8	0	15	0	112	3	0	115	
Peak Factor						0.869					0.783					0.915					



All Traffic Data Services, Inc.

9660 W 44th Ave

Wheat Ridge, CO 80033

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File Name : WHAVEN&FRONTM

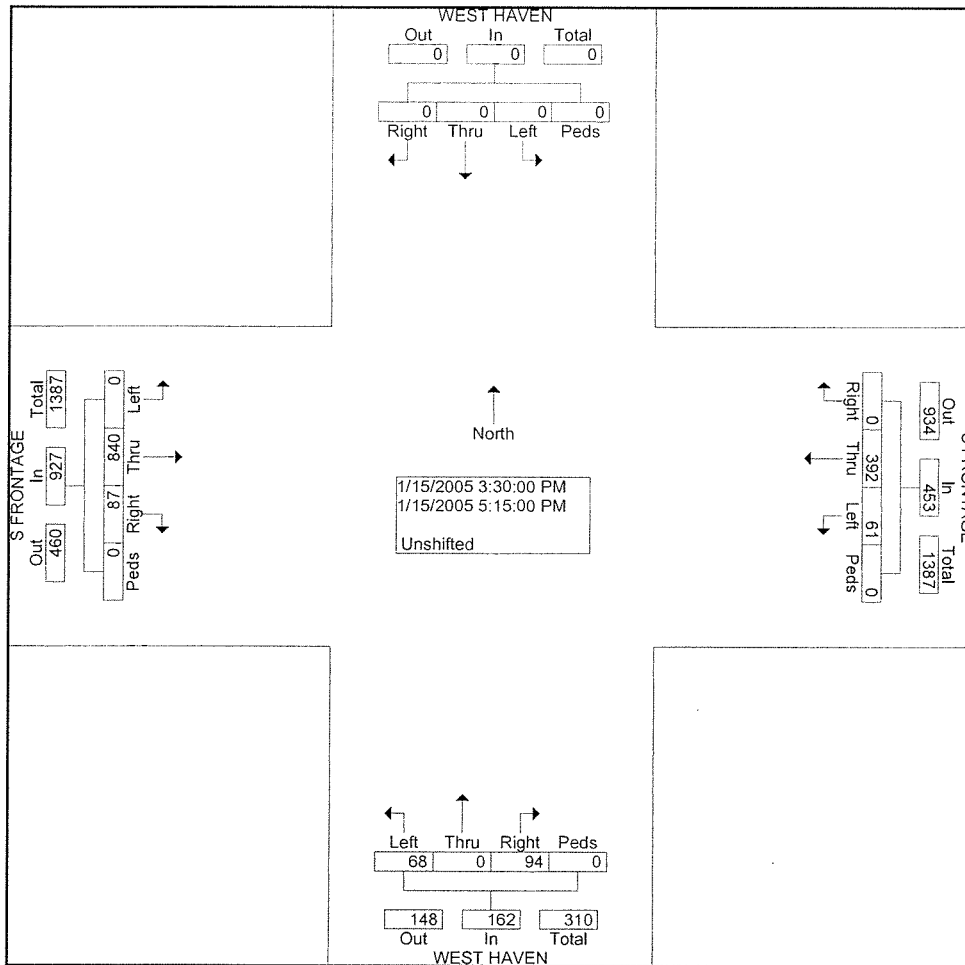
Site Code : 00000000

Start Date : 1/15/2005

Page No : 1

Groups Printed- Unshifted

Start Time	WEST HAVEN Southbound				S FRONTAGE Westbound				WEST HAVEN Northbound				S FRONTAGE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:30 PM	0	0	0	0	6	26	0	0	5	0	8	0	0	87	9	0	141
03:45 PM	0	0	0	0	7	35	0	0	6	0	9	0	0	101	11	0	169
Total	0	0	0	0	13	61	0	0	11	0	17	0	0	188	20	0	310
04:00 PM	0	0	0	0	10	35	0	0	8	0	11	0	0	115	14	0	193
04:15 PM	0	0	0	0	9	53	0	0	11	0	10	0	0	116	15	0	214
04:30 PM	0	0	0	0	7	77	0	0	11	0	16	0	0	122	8	0	241
04:45 PM	0	0	0	0	11	81	0	0	12	0	16	0	0	115	10	0	245
Total	0	0	0	0	37	246	0	0	42	0	53	0	0	468	47	0	893
05:00 PM	0	0	0	0	6	47	0	0	7	0	9	0	0	96	11	0	176
05:15 PM	0	0	0	0	5	38	0	0	8	0	15	0	0	88	9	0	163
Grand Total	0	0	0	0	61	392	0	0	68	0	94	0	0	840	87	0	1542
Apprch %	0.0	0.0	0.0	0.0	13.5	86.5	0.0	0.0	42.0	0.0	58.0	0.0	0.0	90.6	9.4	0.0	
Total %	0.0	0.0	0.0	0.0	4.0	25.4	0.0	0.0	4.4	0.0	6.1	0.0	0.0	54.5	5.6	0.0	



All Traffic Data Services, Inc.

9660 W 44th Ave

Wheat Ridge, CO 80033

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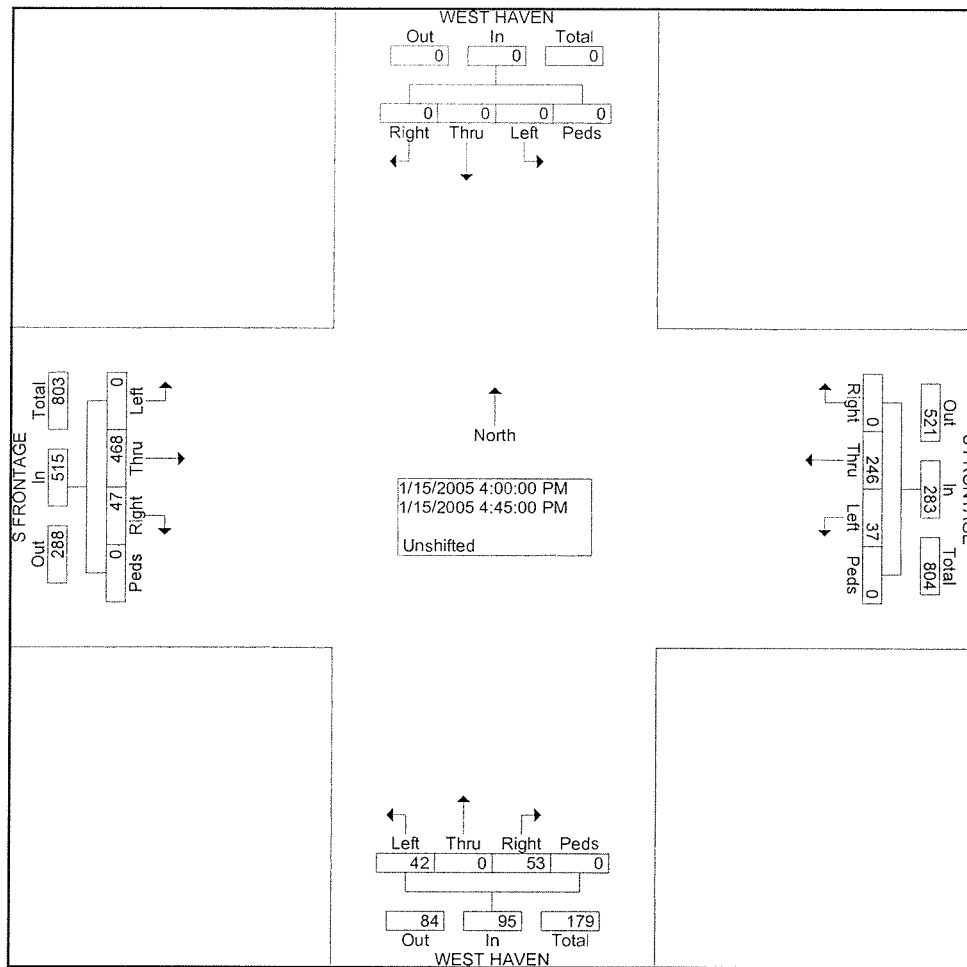
File Name : WHAVEN&FRONTPM

Site Code : 00000000

Start Date : 1/15/2005

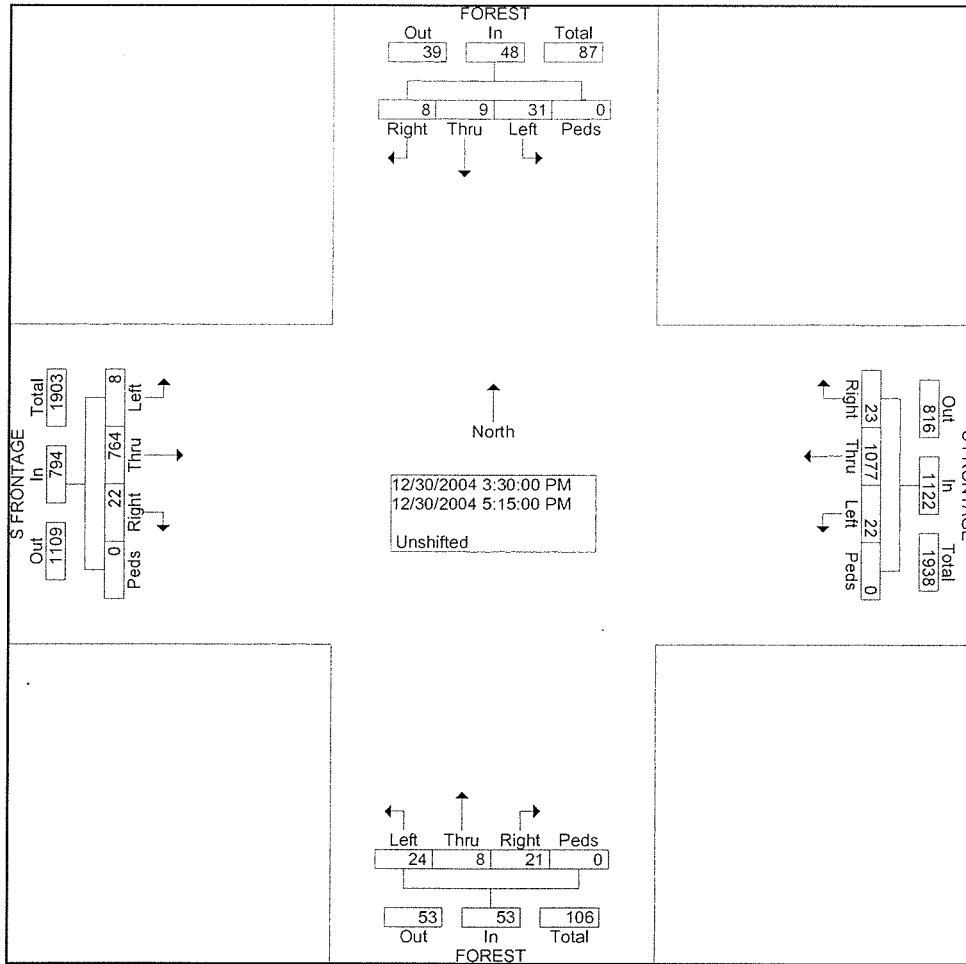
Page No : 2

Start Time	WEST HAVEN Southbound					S FRONTAGE Westbound					WEST HAVEN Northbound					S FRONTAGE Eastbound					Int. 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	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	0	0	0	0	0	37	246	0	0	283	42	0	53	0	95	0	468	47	0	515	893
Percent	0.0	0.0	0.0	0.0		13.1	86.9	0.0	0.0		44.2	0.0	55.8	0.0		0.0	90.9	9.1	0.0		
04:45 Volume	0	0	0	0	0	11	81	0	0	92	12	0	16	0	28	0	115	10	0	125	245
Peak Factor	0.911																				
High Int. Volume	3:15:00 PM					04:45 PM					04:45 PM					04:15 PM					
Peak Factor	0	0	0	0	0	11	81	0	0	92	12	0	16	0	28	0	116	15	0	131	0.983



Groups Printed- Unshifted

Start Time	FOREST Southbound				S FRONTAGE Westbound				FOREST Northbound				S FRONTAGE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:30 PM	0	0	0	0	2	92	4	0	1	0	1	0	0	97	4	0	201
03:45 PM	1	1	0	0	2	114	2	0	3	1	3	0	1	85	5	0	218
Total	1	1	0	0	4	206	6	0	4	1	4	0	1	182	9	0	419
04:00 PM	0	0	0	0	1	121	1	0	2	3	2	0	1	100	4	0	235
04:15 PM	4	4	0	0	8	146	1	0	5	0	3	0	1	98	3	0	273
04:30 PM	6	1	0	0	2	175	4	0	4	1	4	0	1	92	2	0	292
04:45 PM	10	0	0	0	2	148	2	0	5	3	6	0	3	99	2	0	280
Total	20	5	0	0	13	590	8	0	16	7	15	0	6	389	11	0	1080
05:00 PM	5	0	2	0	1	130	6	0	1	0	1	0	1	109	1	0	257
05:15 PM	5	3	6	0	4	151	3	0	3	0	1	0	0	84	1	0	261
Grand Total	31	9	8	0	22	1077	23	0	24	8	21	0	8	764	22	0	2017
Apprch %	64.6	18.8	16.7	0.0	2.0	96.0	2.0	0.0	45.3	15.1	39.6	0.0	1.0	96.2	2.8	0.0	
Total %	1.5	0.4	0.4	0.0	1.1	53.4	1.1	0.0	1.2	0.4	1.0	0.0	0.4	37.9	1.1	0.0	



All Traffic Data Services, Inc.

9960 W 44th Ave

Wheat Ridge, CO 80033 Name : WLIONSHEADCIR&FRONTM

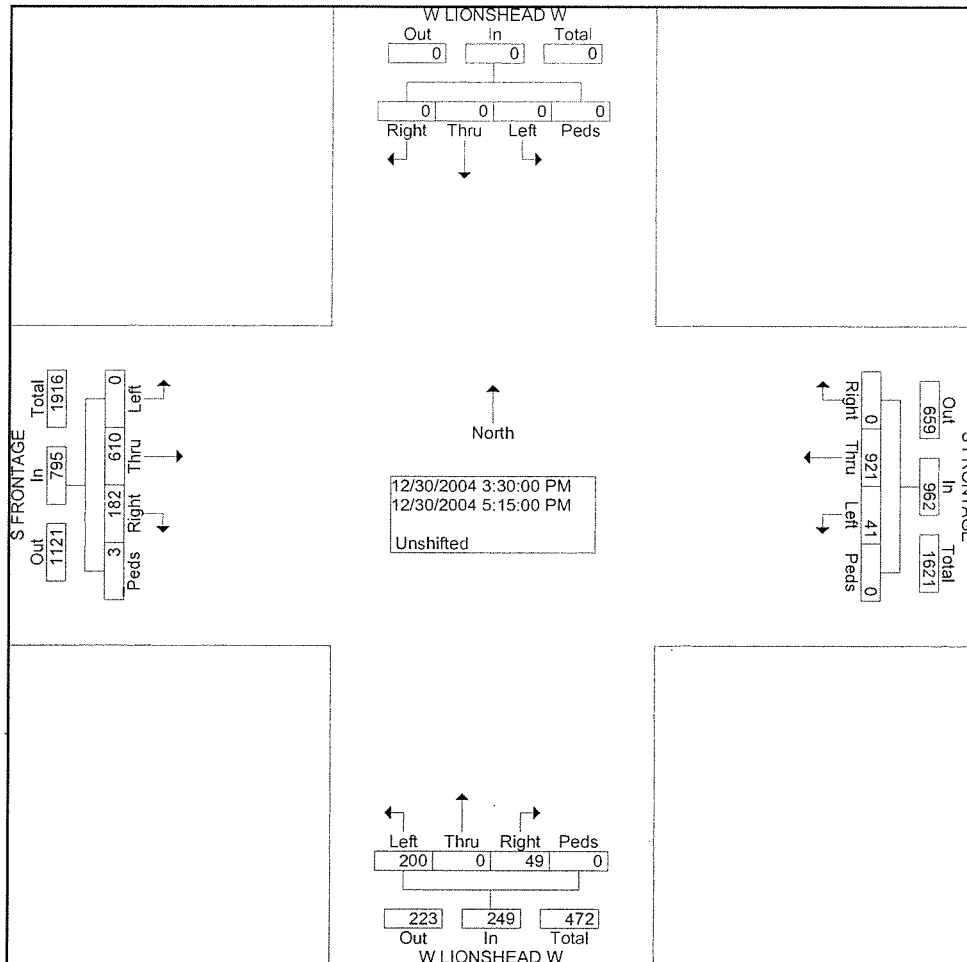
Site Code : 00000000

Start Date : 12/30/2004

Page No : 1

Groups Printed- Unshifted

Start Time	W LIONSHEAD W Southbound				S FRONTAGE Westbound				W LIONSHEAD W Northbound				S FRONTAGE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:30 PM	0	0	0	0	7	79	0	0	28	0	3	0	0	70	19	0	206
03:45 PM	0	0	0	0	5	105	0	0	18	0	6	0	0	72	19	0	225
Total	0	0	0	0	12	184	0	0	46	0	9	0	0	142	38	0	431
04:00 PM	0	0	0	0	4	121	0	0	22	0	5	0	0	69	21	0	242
04:15 PM	0	0	0	0	5	124	0	0	24	0	8	0	0	71	26	0	258
04:30 PM	0	0	0	0	5	138	0	0	35	0	9	0	0	75	26	0	288
04:45 PM	0	0	0	0	6	123	0	0	25	0	7	0	0	88	24	3	276
Total	0	0	0	0	20	506	0	0	106	0	29	0	0	303	97	3	1064
05:00 PM	0	0	0	0	6	114	0	0	24	0	5	0	0	95	26	0	270
05:15 PM	0	0	0	0	3	117	0	0	24	0	6	0	0	70	21	0	241
Grand Total	0	0	0	0	41	921	0	0	200	0	49	0	0	610	182	3	2006
Apprch %	0.0	0.0	0.0	0.0	4.3	95.7	0.0	0.0	80.3	0.0	19.7	0.0	0.0	76.7	22.9	0.4	
Total %	0.0	0.0	0.0	0.0	2.0	45.9	0.0	0.0	10.0	0.0	2.4	0.0	0.0	30.4	9.1	0.1	



All Traffic Data Services, Inc.

9960 W 44th Ave

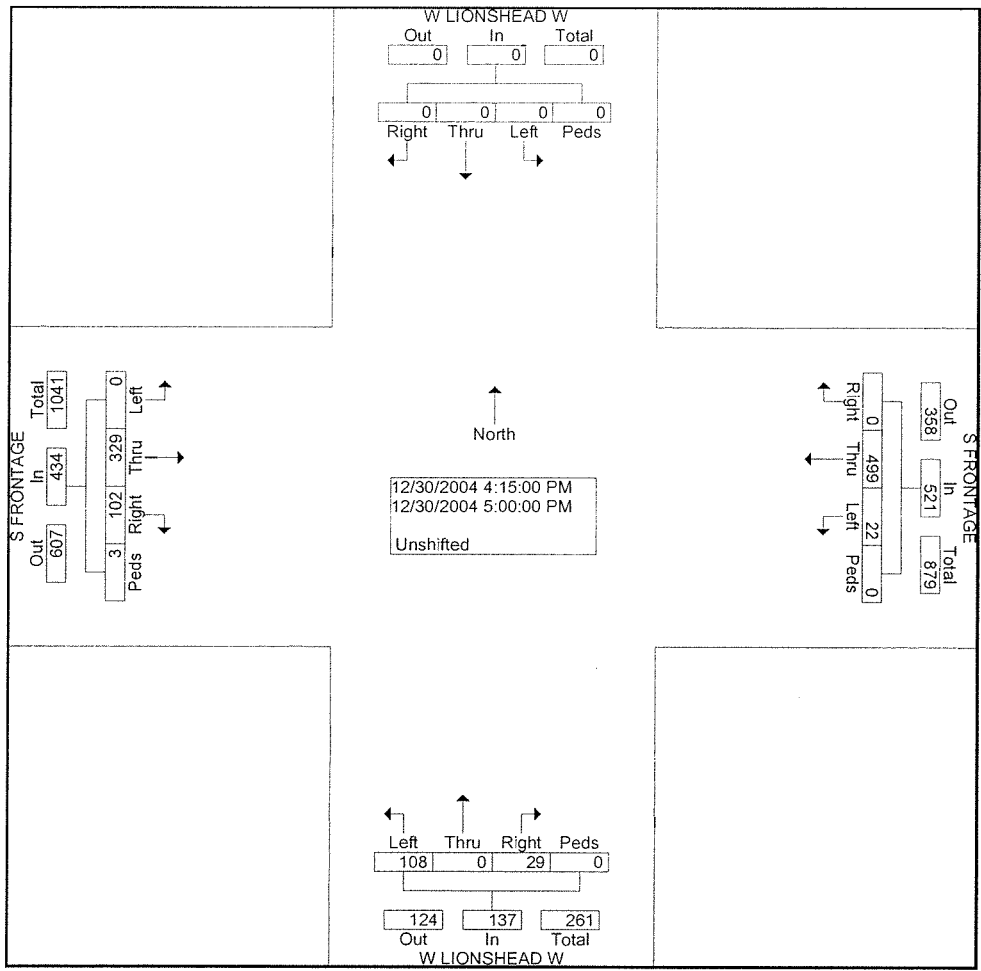
Wheat Ridge, CO 80633 Name : WLIONSHEADCIR&FRONTM

Site Code : 00000000

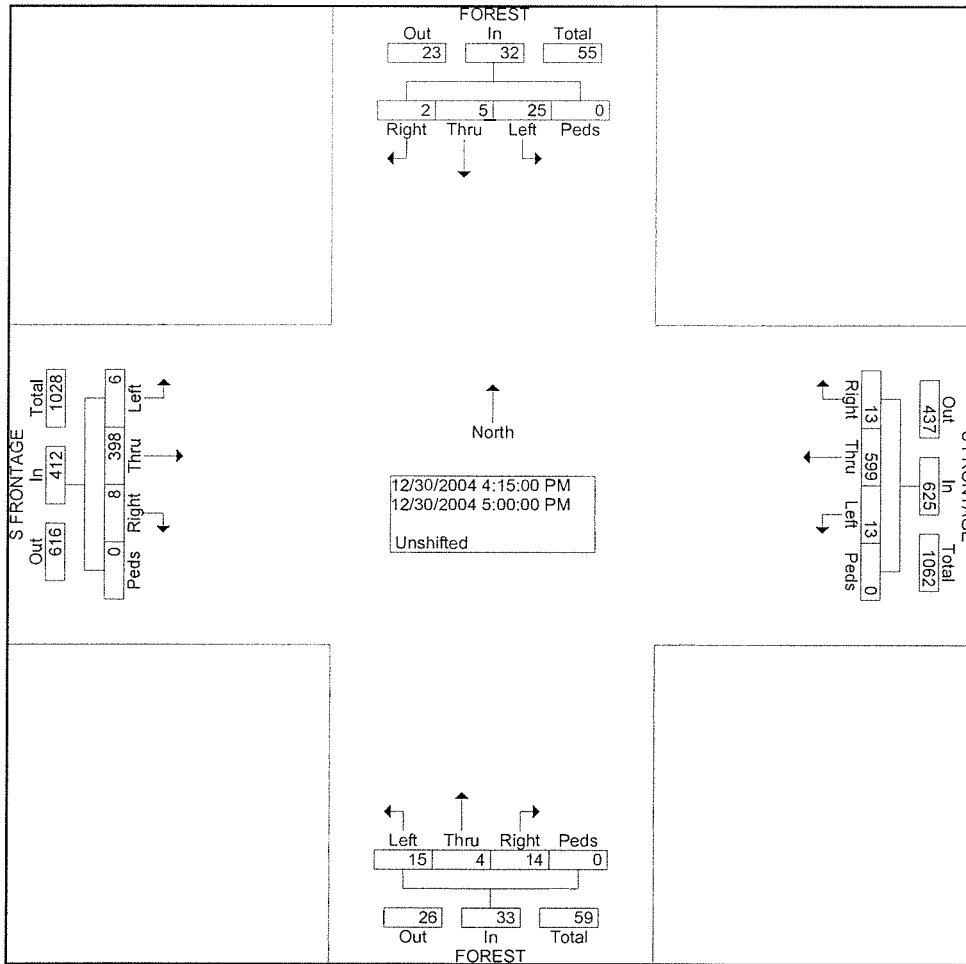
Start Date : 12/30/2004

Page No : 2

Start Time	W LIONSHEAD W Southbound					S FRONTAGE Westbound					W LIONSHEAD W Northbound					S FRONTAGE Eastbound					Int. Total
	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	
Intersection	04:15 PM																				
Volume	0	0	0	0	0	22	499	0	0	521	108	0	29	0	137	0	329	102	3	434	1092
Percent	0.0	0.0	0.0	0.0		4.2	95.8	0.0	0.0		78.8	0.0	21.2	0.0		0.0	75.8	23.5	0.7		
04:30 Volume	0	0	0	0	0	5	138	0	0	143	35	0	9	0	44	0	75	26	0	101	288
Peak Factor																					0.948
High Int. Volume	3:15:00 PM																				
Peak Factor	04:30 PM																				
	0	0	0	0	0	5	138	0	0	143	35	0	9	0	44	0	95	26	0	121	121
																					0.89
																					0.77
																					1
																					8
																					7



Start Time	FOREST Southbound					S FRONTAGE Westbound					FOREST Northbound					S FRONTAGE Eastbound					Int. 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				
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																								
Intersection	04:15 PM																							
Volume	25	5	2	0	32	13	599	13	0	625	15	4	14	0	33	6	398	8	0	412	1102			
Percent	78.1	15.6	6.3	0.0		2.1	95.8	2.1	0.0		45.5	12.1	42.4	0.0		1.5	96.6	1.9	0.0					
04:30 Volume	6	1	0	0	7	2	175	4	0	181	4	1	4	0	9	1	92	2	0	95	292			
Peak Factor	0.943																							
High Int. Volume	04:45 PM																							
Peak Factor	10	0	0	0	10	2	175	4	0	181	5	3	6	0	14	1	109	1	0	111	0.800	0.863	0.589	0.928



All Traffic Data Services, Inc.

9960 W 44th Ave

Wheat Ridge, CO 80033 File Name : LIONSHEADCIR&FRONTM

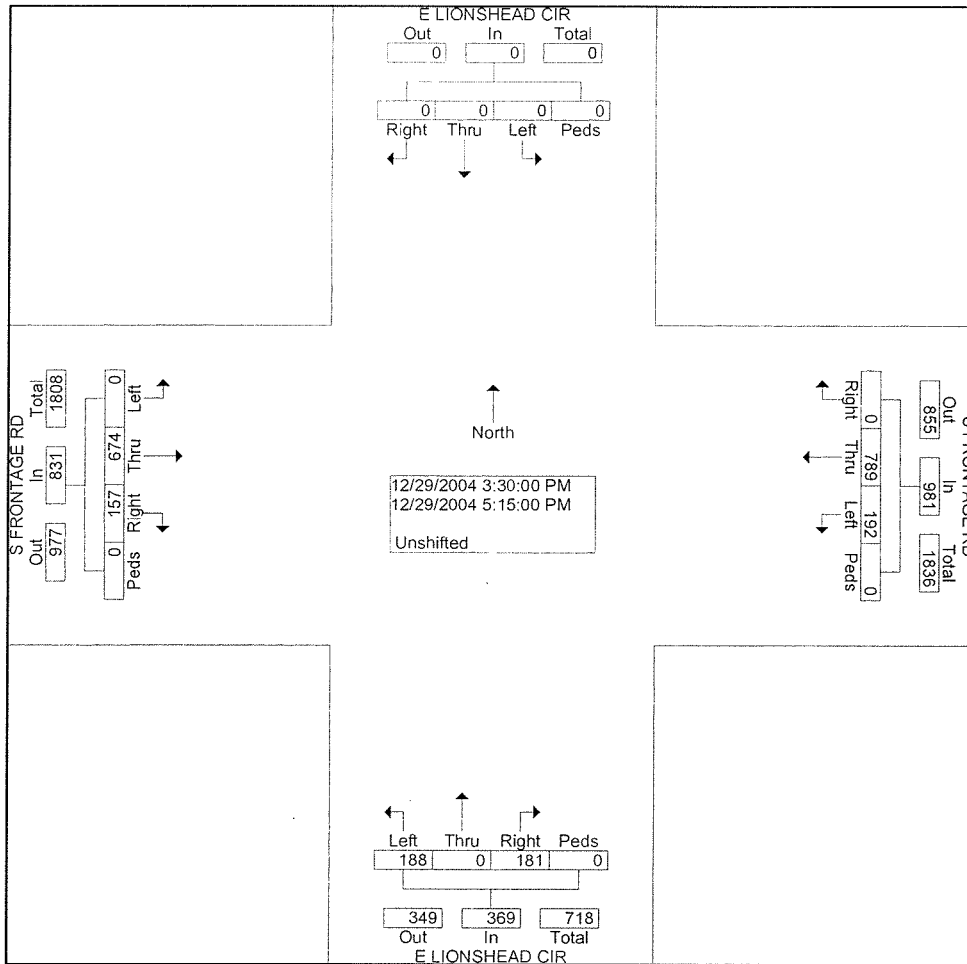
Site Code : 00000000

Start Date : 12/29/2004

Page No : 1

Groups Printed- Unshifted

Start Time	E LIONSHEAD CIR Southbound				S FRONTAGE RD Westbound				E LIONSHEAD CIR Northbound				S FRONTAGE RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
03:30 PM	0	0	0	0	25	82	0	0	17	0	22	0	0	83	10	0	239
03:45 PM	0	0	0	0	22	93	0	0	24	0	21	0	0	72	23	0	255
Total	0	0	0	0	47	175	0	0	41	0	43	0	0	155	33	0	494
04:00 PM	0	0	0	0	21	86	0	0	24	0	22	0	0	80	25	0	258
04:15 PM	0	0	0	0	30	118	0	0	25	0	20	0	0	73	23	0	289
04:30 PM	0	0	0	0	23	111	0	0	23	0	31	0	0	92	22	0	302
04:45 PM	0	0	0	0	23	92	0	0	26	0	22	0	0	97	18	0	278
Total	0	0	0	0	97	407	0	0	98	0	95	0	0	342	88	0	1127
05:00 PM	0	0	0	0	21	93	0	0	25	0	19	0	0	82	25	0	265
05:15 PM	0	0	0	0	27	114	0	0	24	0	24	0	0	95	11	0	295
Grand Total	0	0	0	0	192	789	0	0	188	0	181	0	0	674	157	0	2181
Apprch %	0.0	0.0	0.0	0.0	19.6	80.4	0.0	0.0	50.9	0.0	49.1	0.0	0.0	81.1	18.9	0.0	
Total %	0.0	0.0	0.0	0.0	8.8	36.2	0.0	0.0	8.6	0.0	8.3	0.0	0.0	30.9	7.2	0.0	



All Traffic Data Services, Inc.
 9960 W 44th Ave

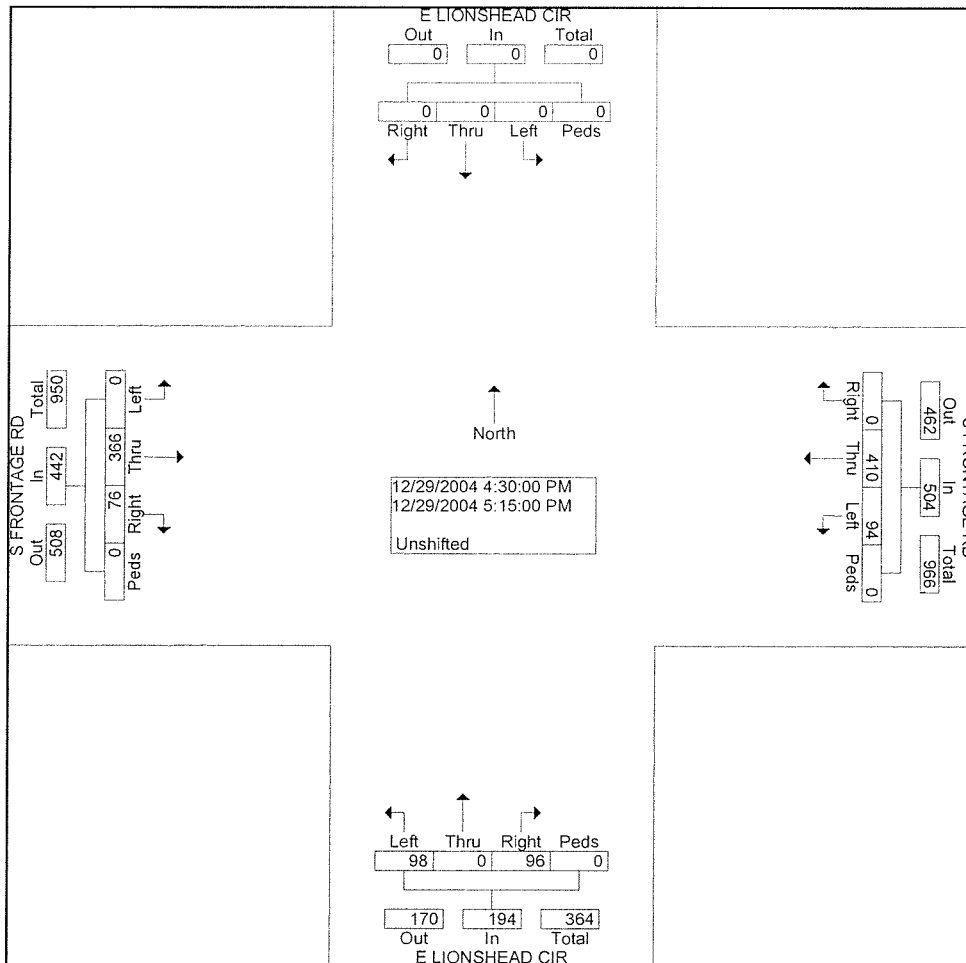
Wheat Ridge, CO 80033 File Name : LIONSHEADCIR&FRONTM

Site Code : 00000000

Start Date : 12/29/2004

Page No : 2

Start Time	E LIONSHEAD CIR Southbound					S FRONTAGE RD Westbound					E LIONSHEAD CIR Northbound					S FRONTAGE RD Eastbound					Int. 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	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	0	0	0	0	0	94	410	0	0	504	98	0	96	0	194	0	366	76	0	442	1140
Percent	0.0	0.0	0.0	0.0		18.7	81.3	0.0	0.0		50.5	0.0	49.5	0.0		0.0	82.8	17.2	0.0		
04:30 Volume	0	0	0	0	0	23	111	0	0	134	23	0	31	0	54	0	92	22	0	114	302
Peak Factor	0.944																				
High Int. Peak	3:15:00 PM					05:15 PM					04:30 PM					04:45 PM					
Volume	0	0	0	0	0	27	114	0	0	141	23	0	31	0	54	0	97	18	0	115	
Peak Factor						0.894					0.898					0.961					

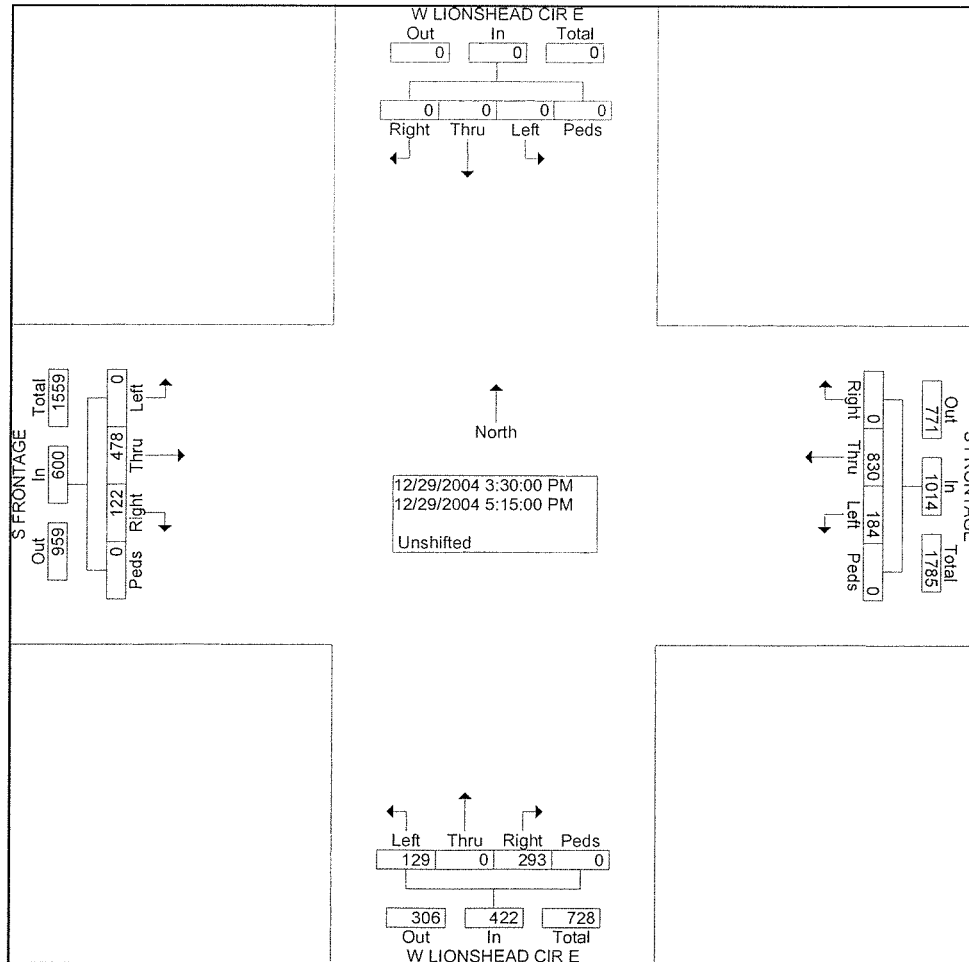


All Traffic Data Services, Inc.
 9960 W 44th Ave
 Wheat Ridge, CO 80033

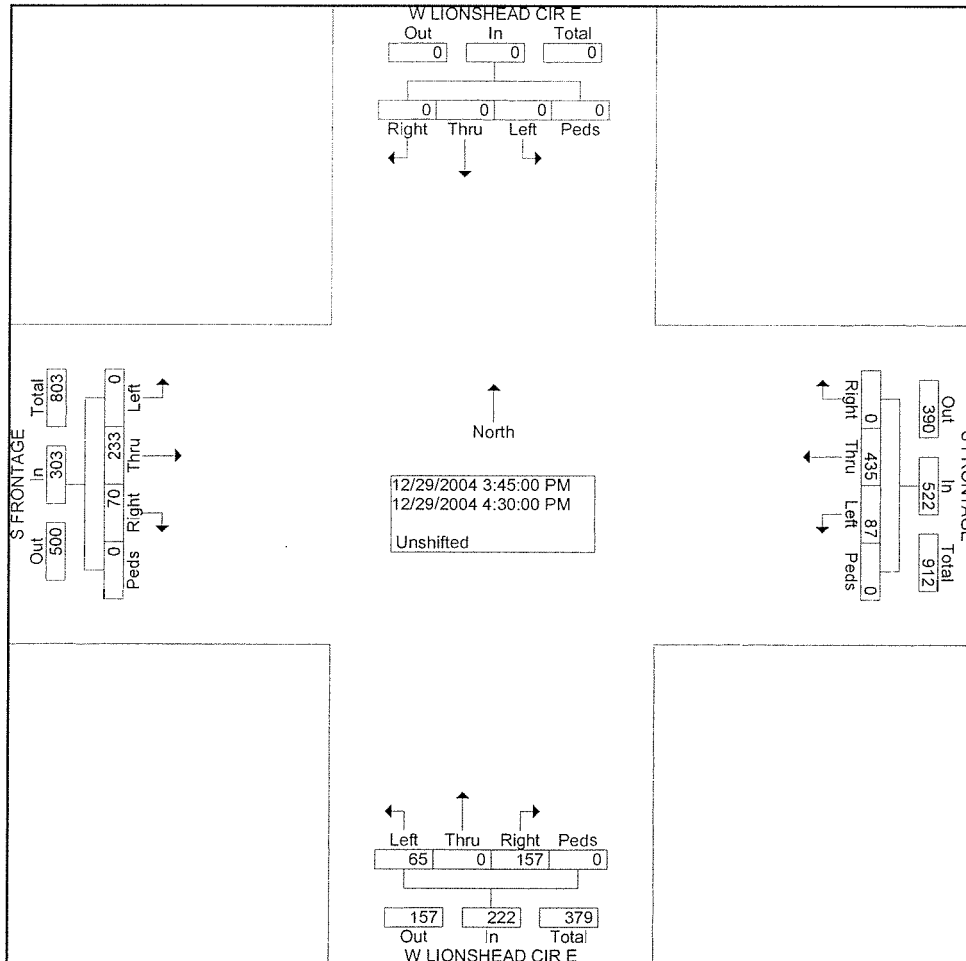
File Name : LIONSHEAD&FRONTM
 Site Code : 00000000
 Start Date : 12/29/2004
 Page No : 1

Groups Printed- Unshifted

Start Time	W LIONSHEAD CIR E Southbound				S FRONTAGE Westbound				W LIONSHEAD CIR E Northbound				S FRONTAGE Eastbound				Int. Total	
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds		
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:30 PM	0	0	0	0	28	72	0	0	21	0	34	0	0	61	10	0	0	226
03:45 PM	0	0	0	0	24	92	0	0	21	0	39	0	0	52	18	0	0	246
Total	0	0	0	0	52	164	0	0	42	0	73	0	0	113	28	0	0	472
04:00 PM	0	0	0	0	26	105	0	0	18	0	38	0	0	63	21	0	0	271
04:15 PM	0	0	0	0	22	117	0	0	14	0	34	0	0	60	16	0	0	263
04:30 PM	0	0	0	0	15	121	0	0	12	0	46	0	0	58	15	0	0	267
04:45 PM	0	0	0	0	13	104	0	0	15	0	34	0	0	60	14	0	0	240
Total	0	0	0	0	76	447	0	0	59	0	152	0	0	241	66	0	0	1041
05:00 PM	0	0	0	0	36	105	0	0	14	0	35	0	0	56	12	0	0	258
05:15 PM	0	0	0	0	20	114	0	0	14	0	33	0	0	68	16	0	0	265
Grand Total	0	0	0	0	184	830	0	0	129	0	293	0	0	478	122	0	0	2036
Apprch %	0.0	0.0	0.0	0.0	18.1	81.9	0.0	0.0	30.6	0.0	69.4	0.0	0.0	79.7	20.3	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	9.0	40.8	0.0	0.0	6.3	0.0	14.4	0.0	0.0	23.5	6.0	0.0	0.0	



Start Time	W LIONSHEAD CIR E Southbound					S FRONTAGE Westbound					W LIONSHEAD CIR E Northbound					S FRONTAGE Eastbound					Int. Total	
	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total		
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																						
Intersection	03:45 PM																					
Volume	0	0	0	0	0	87	435	0	0	522	65	0	157	0	222	0	233	70	0	303	1047	
Percent	0.0	0.0	0.0	0.0	0.0	16.7	83.3	0.0	0.0	0.0	29.3	0.0	70.7	0.0	0.0	0.0	76.9	23.1	0.0	0.0		
04:00	0	0	0	0	0	26	105	0	0	131	18	0	38	0	56	0	63	21	0	84	271	
Volume Peak Factor																						0.966
High Int.	3:15:00 PM																					
Volume Peak Factor	0	0	0	0	0	22	117	0	0	139	21	0	39	0	60	0	63	21	0	84	0.902	
											0.939					0.925						



All Traffic Data Services, Inc.
 9960 W 44th Ave

Wheat Ridge, CO 80033 File Name : LIONSTRUCT&FRONTM

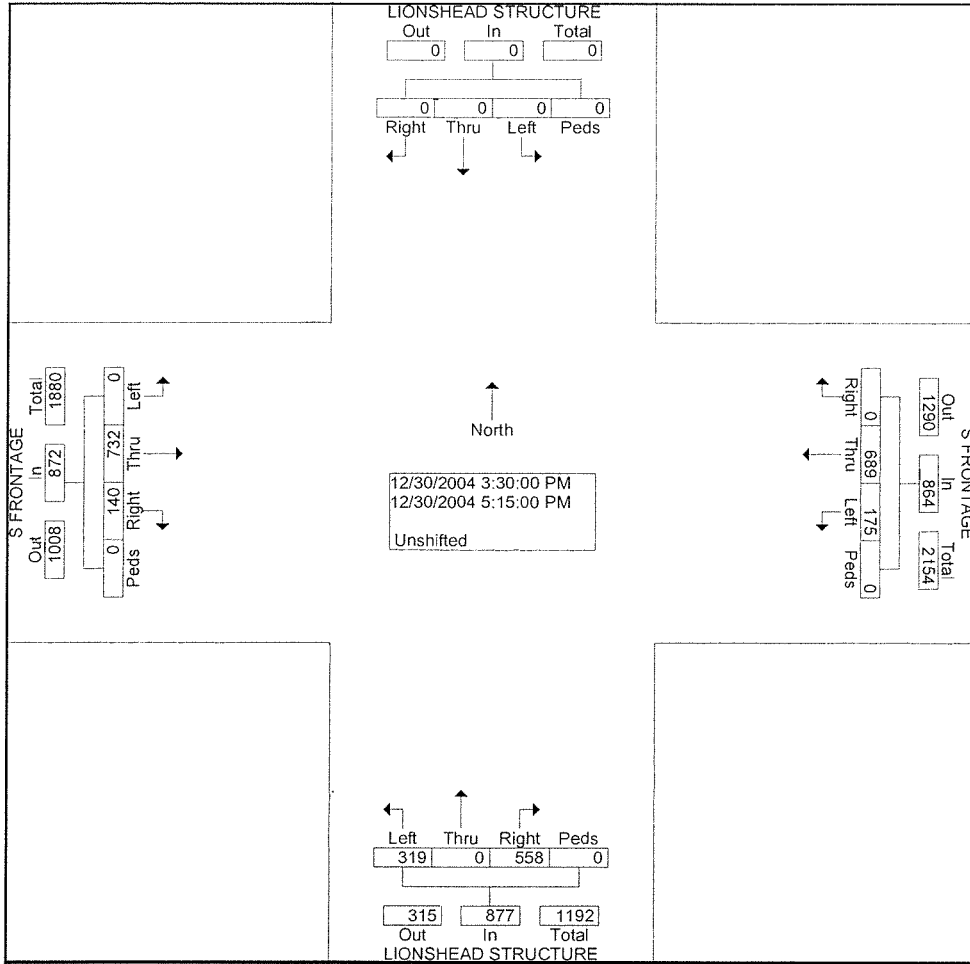
Site Code : 00000000

Start Date : 12/30/2004

Page No : 1

Groups Printed- Unshifted

Start Time	LIONSHEAD STRUCTURE Southbound				S FRONTAGE Westbound				LIONSHEAD STRUCTURE Northbound				S FRONTAGE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:30 PM	0	0	0	0	23	89	0	0	31	0	31	0	0	81	27	0	282
03:45 PM	0	0	0	0	19	88	0	0	39	0	40	0	0	83	11	0	280
Total	0	0	0	0	42	177	0	0	70	0	71	0	0	164	38	0	562
04:00 PM	0	0	0	0	30	84	0	0	32	0	57	0	0	85	24	0	312
04:15 PM	0	0	0	0	29	108	0	0	38	0	77	0	0	77	23	0	352
04:30 PM	0	0	0	0	11	88	0	0	49	0	116	0	0	109	13	0	386
04:45 PM	0	0	0	0	21	83	0	0	33	0	77	0	0	101	17	0	332
Total	0	0	0	0	91	363	0	0	152	0	327	0	0	372	77	0	1382
05:00 PM	0	0	0	0	26	73	0	0	43	0	83	0	0	85	13	0	323
05:15 PM	0	0	0	0	16	76	0	0	54	0	77	0	0	111	12	0	346
Grand Total	0	0	0	0	175	689	0	0	319	0	558	0	0	732	140	0	2613
Apprch %	0.0	0.0	0.0	0.0	20.3	79.7	0.0	0.0	36.4	0.0	63.6	0.0	0.0	83.9	16.1	0.0	
Total %	0.0	0.0	0.0	0.0	6.7	26.4	0.0	0.0	12.2	0.0	21.4	0.0	0.0	28.0	5.4	0.0	



All Traffic Data Services, Inc.
9960 W 44th Ave

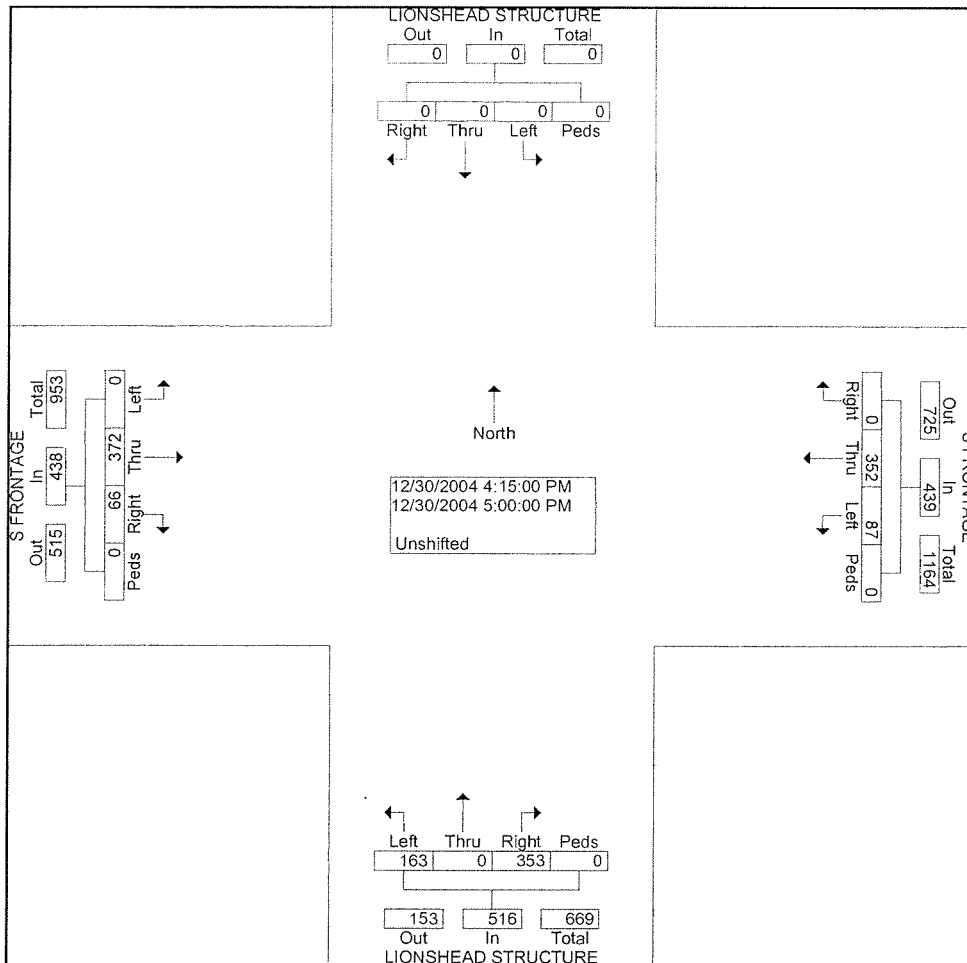
Wheat Ridge, CO 80033 File Name : LIONSTRUCT&FRONTM

Site Code : 00000000

Start Date : 12/30/2004

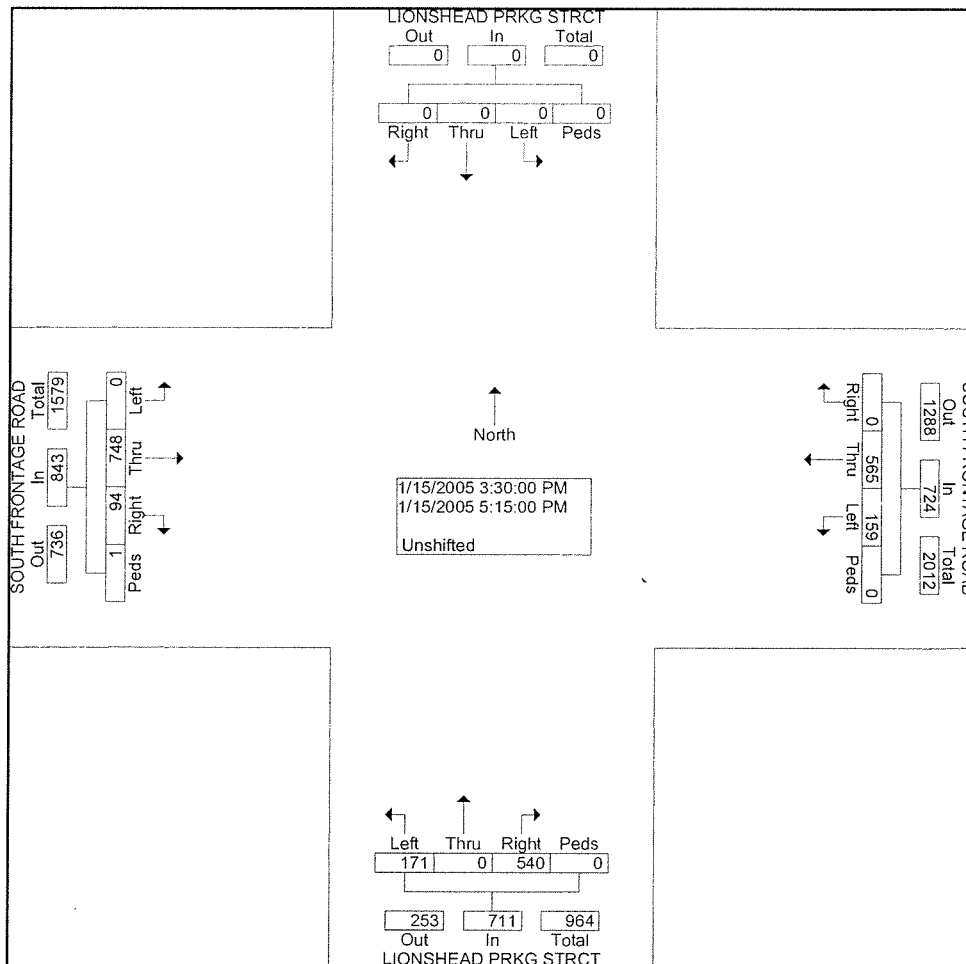
Page No : 2

Start Time	LIONSHEAD STRUCTURE Southbound					S FRONTAGE Westbound					LIONSHEAD STRUCTURE Northbound					S FRONTAGE Eastbound					Int. Total
	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Intersection	04:15 PM																				
Volume	0	0	0	0	0	87	352	0	0	439	163	0	353	0	516	0	372	66	0	438	1393
Percent	0.0	0.0	0.0	0.0	0.0	19.8	80.2	0.0	0.0	0.0	31.6	0.0	68.4	0.0	0.0	0.0	84.9	15.1	0.0	0.0	
Volume	04:30																				
Volume	0	0	0	0	0	11	88	0	0	99	49	0	116	0	165	0	109	13	0	122	386
Peak Factor	0.902																				
High Int.	3:15:00 PM																				
Volume	0	0	0	0	0	29	108	0	0	137	49	0	116	0	165	0	109	13	0	122	
Peak Factor						0.801					0.782					0.898					



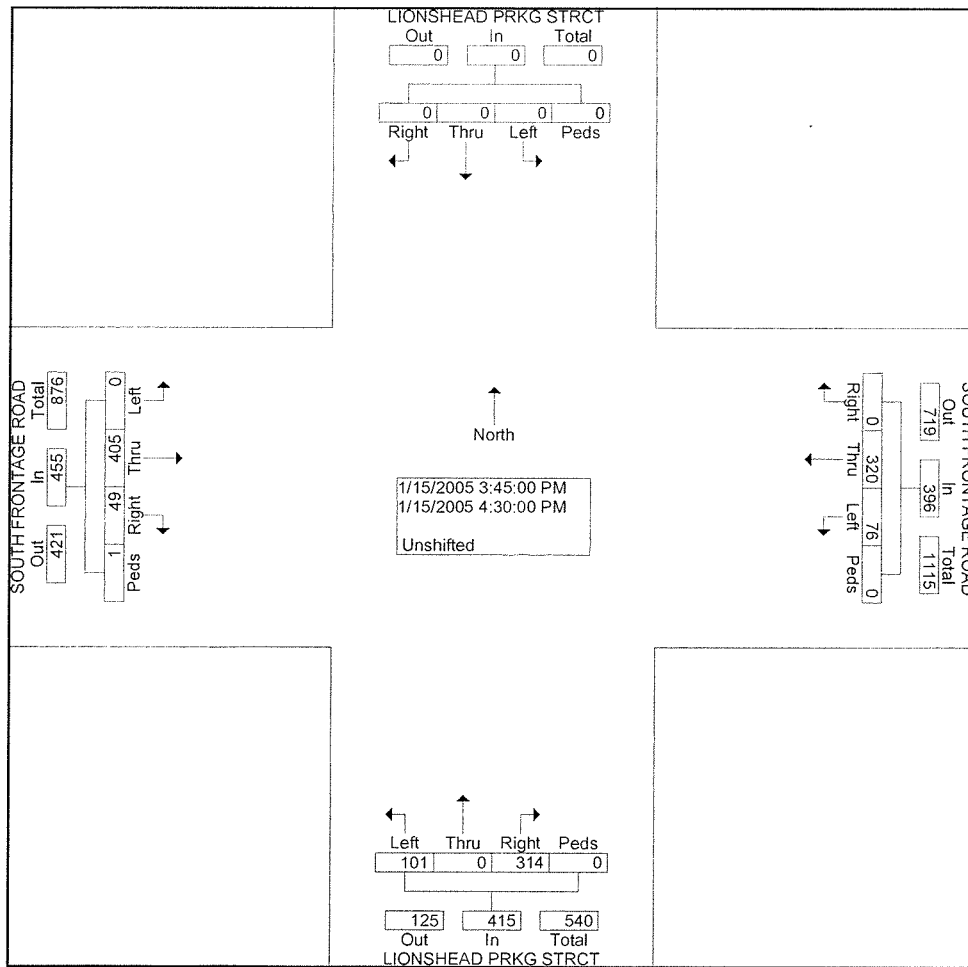
Groups Printed- Unshifted

Start Time	LIONSHEAD PRKG STRCT Southbound				SOUTH FRONTAGE ROAD Westbound				LIONSHEAD PRKG STRCT Northbound				SOUTH FRONTAGE ROAD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:30 PM	0	0	0	0	18	69	0	0	13	0	70	0	0	69	15	0	254
03:45 PM	0	0	0	0	19	68	0	0	27	0	78	0	0	80	17	1	290
Total	0	0	0	0	37	137	0	0	40	0	148	0	0	149	32	1	544
04:00 PM	0	0	0	0	17	94	0	0	27	0	76	0	0	112	11	0	337
04:15 PM	0	0	0	0	21	79	0	0	19	0	73	0	0	100	11	0	303
04:30 PM	0	0	0	0	19	79	0	0	28	0	87	0	0	113	10	0	336
04:45 PM	0	0	0	0	24	71	0	0	25	0	52	0	0	98	15	0	285
Total	0	0	0	0	81	323	0	0	99	0	288	0	0	423	47	0	1261
05:00 PM	0	0	0	0	24	63	0	0	23	0	69	0	0	85	7	0	271
05:15 PM	0	0	0	0	17	42	0	0	9	0	35	0	0	91	8	0	202
Grand Total	0	0	0	0	159	565	0	0	171	0	540	0	0	748	94	1	2278
Aprrch %	0.0	0.0	0.0	0.0	22.0	78.0	0.0	0.0	24.1	0.0	75.9	0.0	0.0	88.7	11.2	0.1	
Total %	0.0	0.0	0.0	0.0	7.0	24.8	0.0	0.0	7.5	0.0	23.7	0.0	0.0	32.8	4.1	0.0	



Start Time	LIONSHEAD PRKG STRCT Southbound					SOUTH FRONTAGE ROAD Westbound					LIONSHEAD PRKG STRCT Northbound					SOUTH FRONTAGE ROAD Eastbound					Int. Total	
	Left	Thru	Rig ht	Ped s	App. Total	Left	Thru	Rig ht	Ped s	App. Total	Left	Thru	Rig ht	Ped s	App. Total	Left	Thru	Rig ht	Ped s	App. Total		
03:45 PM	0	0	0	0	0	76	320	0	0	396	101	0	314	0	415	0	405	49	1	455	1266	
Volume	0	0	0	0	0	76	320	0	0	396	101	0	314	0	415	0	405	49	1	455	1266	
Percent	0.0	0.0	0.0	0.0		19.2	80.8	0.0	0.0		24.3	0.0	75.7	0.0		0.0	89.0	10.8	0.2			
04:00	0	0	0	0	0	17	94	0	0	111	27	0	76	0	103	0	112	11	0	123	337	
Volume	0	0	0	0	0	17	94	0	0	111	27	0	76	0	103	0	112	11	0	123	337	
Peak Factor																					0.939	
High Int. Volume	0	0	0	0	0	17	94	0	0	111	28	0	87	0	115	0	112	11	0	123		
Peak Factor										0.89					0.90						0.92	

Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1



All Traffic Data Services, Inc.

9660 W 44th Ave

Wheat Ridge, CO 80033 File Name : LIONSTRUCT&FRONTM

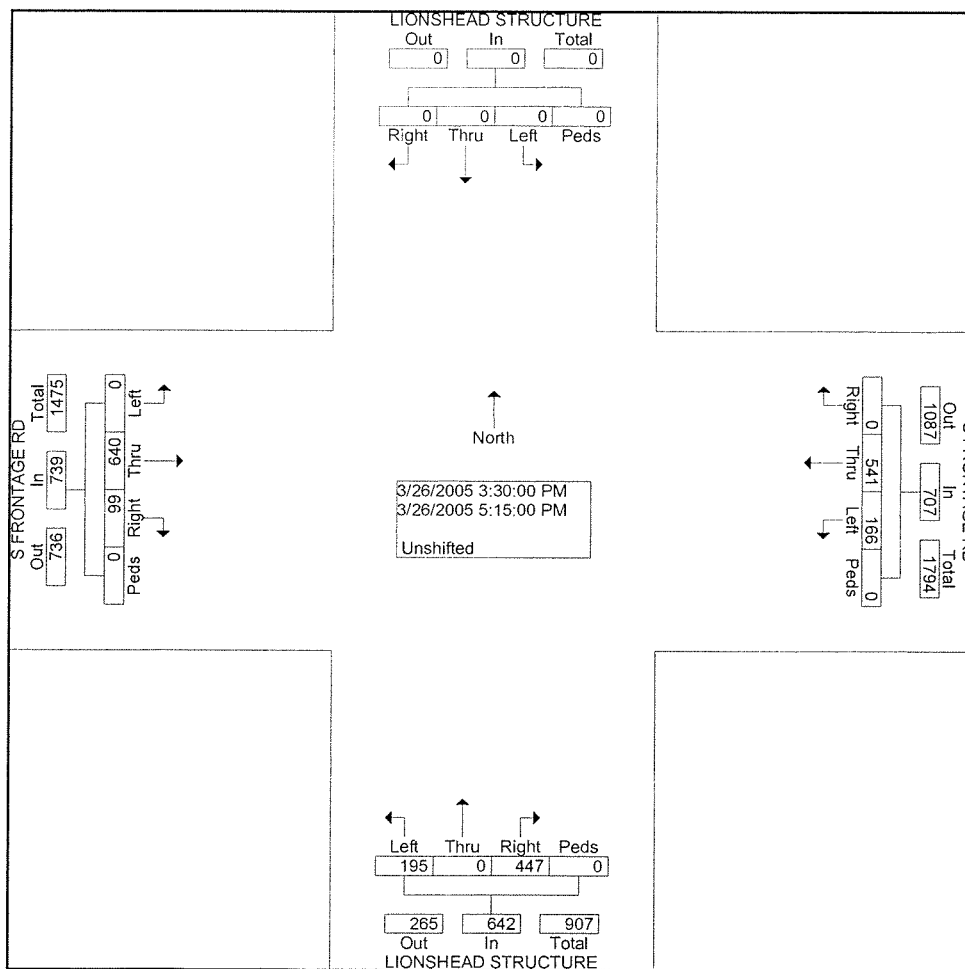
www.alltrafficdata.net Site Code : 00000000

Start Date : 3/26/2005

Page No : 1

Groups Printed- Unshifted

Start Time	LIONSHED STRUCTURE Southbound				S FRONTAGE RD Westbound				LIONSHED STRUCTURE Northbound				S FRONTAGE RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:30 PM	0	0	0	0	26	68	0	0	22	0	58	0	0	78	9	0	261
03:45 PM	0	0	0	0	28	65	0	0	26	0	58	0	0	76	14	0	267
Total	0	0	0	0	54	133	0	0	48	0	116	0	0	154	23	0	528
04:00 PM	0	0	0	0	24	72	0	0	23	0	49	0	0	78	20	0	266
04:15 PM	0	0	0	0	20	74	0	0	19	0	68	0	0	84	11	0	276
04:30 PM	0	0	0	0	16	72	0	0	23	0	68	0	0	88	9	0	276
04:45 PM	0	0	0	0	20	63	0	0	31	0	63	0	0	90	10	0	277
Total	0	0	0	0	80	281	0	0	96	0	248	0	0	340	50	0	1095
05:00 PM	0	0	0	0	11	71	0	0	26	0	50	0	0	83	13	0	254
05:15 PM	0	0	0	0	21	56	0	0	25	0	33	0	0	63	13	0	211
Grand Total	0	0	0	0	166	541	0	0	195	0	447	0	0	640	99	0	2088
Apprch %	0.0	0.0	0.0	0.0	23.5	76.5	0.0	0.0	30.4	0.0	69.6	0.0	0.0	86.6	13.4	0.0	
Total %	0.0	0.0	0.0	0.0	8.0	25.9	0.0	0.0	9.3	0.0	21.4	0.0	0.0	30.7	4.7	0.0	



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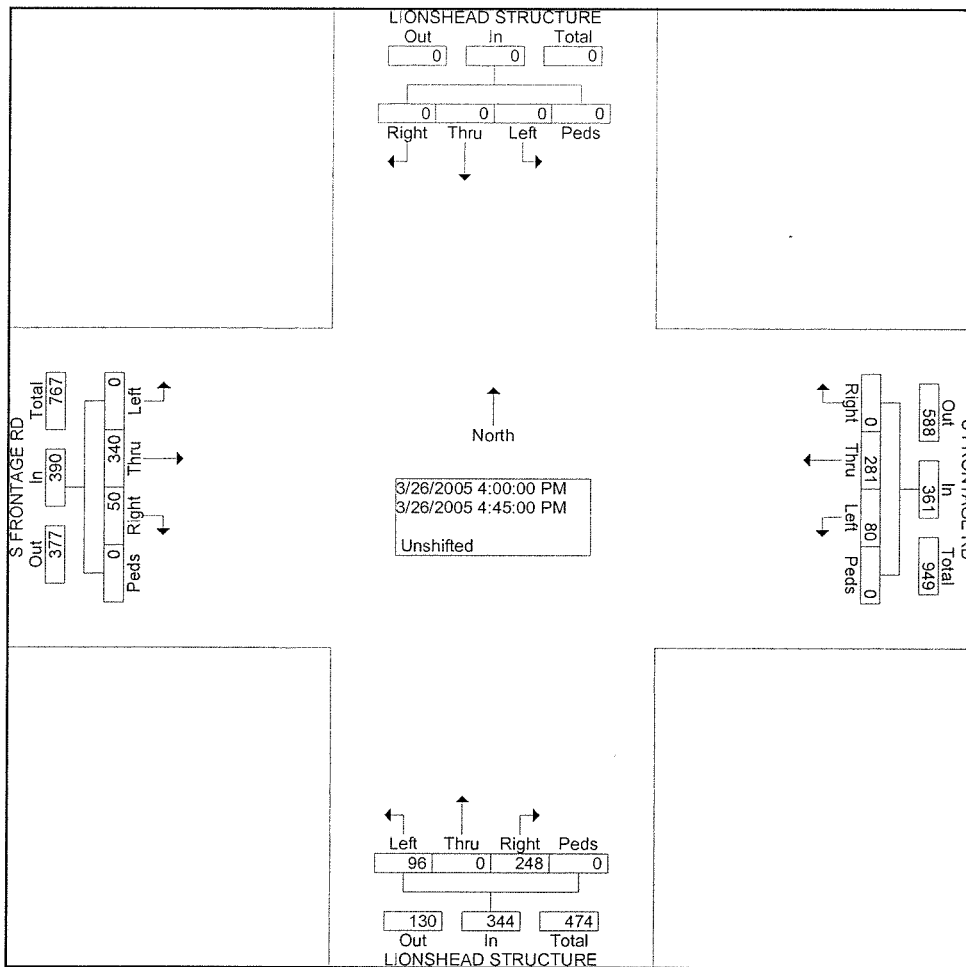
Wheat Ridge, CO 80033 File Name : LIONSTRUCT&FRONTM

www.alltrafficdata.net Site Code : 00000000

Start Date : 3/26/2005

Page No : 2

Start Time	LIONSHEAD STRUCTURE Southbound					S FRONTAGE RD Westbound					LIONSHEAD STRUCTURE Northbound					S FRONTAGE RD Eastbound					Int. Total
	Left	Thru	Rig ht	Ped s	App. Total	Left	Thru	Rig ht	Ped s	App. Total	Left	Thru	Rig ht	Ped s	App. Total	Left	Thru	Rig ht	Ped s	App. Total	
Intersection	04:00 PM																				
Volume	0	0	0	0	0	80	281	0	0	361	96	0	248	0	344	0	340	50	0	390	1095
Percent	0.0	0.0	0.0	0.0		22.2	77.8	0.0	0.0		27.9	0.0	72.1	0.0		0.0	87.2	12.8	0.0		
04:45 Volume	0	0	0	0	0	20	63	0	0	83	31	0	63	0	94	0	90	10	0	100	277
Peak Factor																					0.988
High Int. Volume	3:15:00 PM					04:00 PM					04:45 PM					04:45 PM					
Peak Factor	0	0	0	0	0	24	72	0	0	96	31	0	63	0	94	0	90	10	0	100	0.975



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Wheat Ridge, CO 80033 File Name : VILLAGECENTER&FRONTM

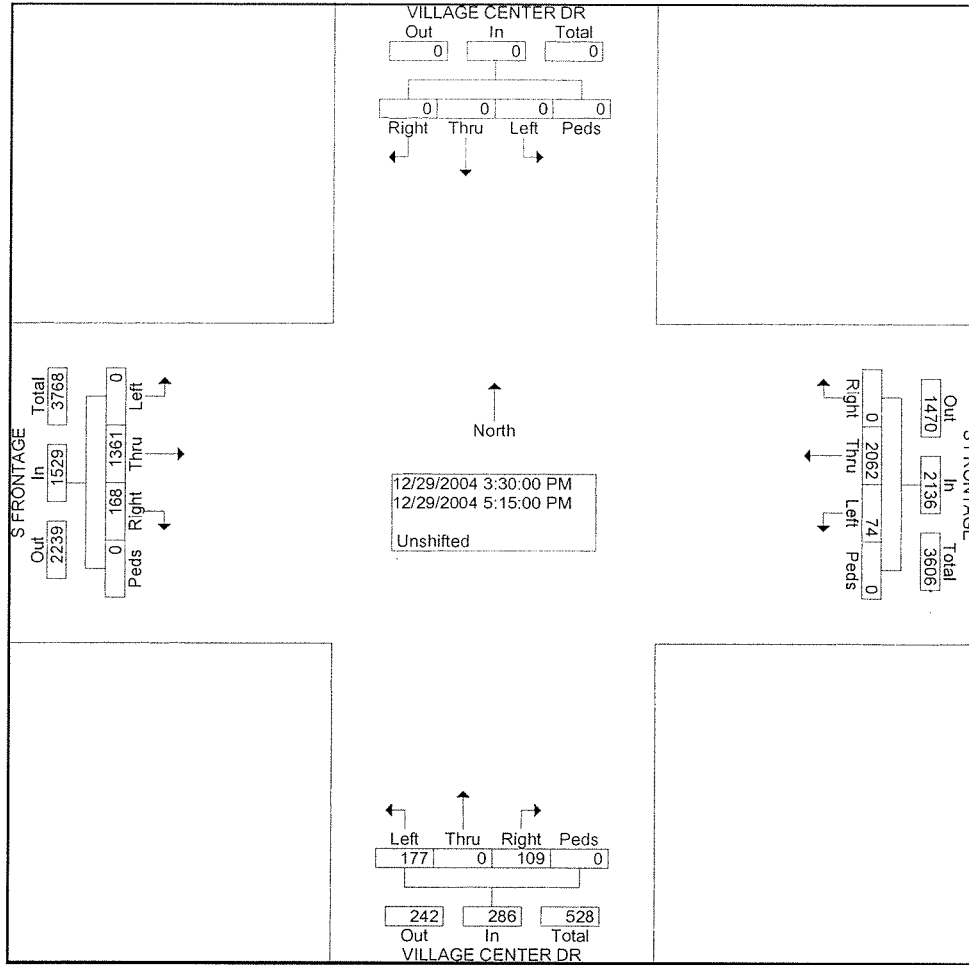
Site Code : 00000000

Start Date : 12/29/2004

Page No : 1

Groups Printed- Unshifted

Start Time	VILLAGE CENTER DR Southbound				S FRONTAGE Westbound				VILLAGE CENTER DR Northbound				S FRONTAGE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:30 PM	0	0	0	0	5	181	0	0	31	0	8	0	0	180	39	0	444
03:45 PM	0	0	0	0	7	239	0	0	24	0	6	0	0	180	21	0	477
Total	0	0	0	0	12	420	0	0	55	0	14	0	0	360	60	0	921
04:00 PM	0	0	0	0	10	283	0	0	22	0	13	0	0	195	26	0	549
04:15 PM	0	0	0	0	16	320	0	0	22	0	19	0	0	192	21	0	590
04:30 PM	0	0	0	0	7	272	0	0	16	0	18	0	0	147	13	0	473
04:45 PM	0	0	0	0	15	249	0	0	13	0	18	0	0	174	13	0	482
Total	0	0	0	0	48	1124	0	0	73	0	68	0	0	708	73	0	2094
05:00 PM	0	0	0	0	7	267	0	0	26	0	19	0	0	136	20	0	475
05:15 PM	0	0	0	0	7	251	0	0	23	0	8	0	0	157	15	0	461
Grand Total	0	0	0	0	74	2062	0	0	177	0	109	0	0	1361	168	0	3951
Apprch %	0.0	0.0	0.0	0.0	3.5	96.5	0.0	0.0	61.9	0.0	38.1	0.0	0.0	89.0	11.0	0.0	
Total %	0.0	0.0	0.0	0.0	1.9	52.2	0.0	0.0	4.5	0.0	2.8	0.0	0.0	34.4	4.3	0.0	



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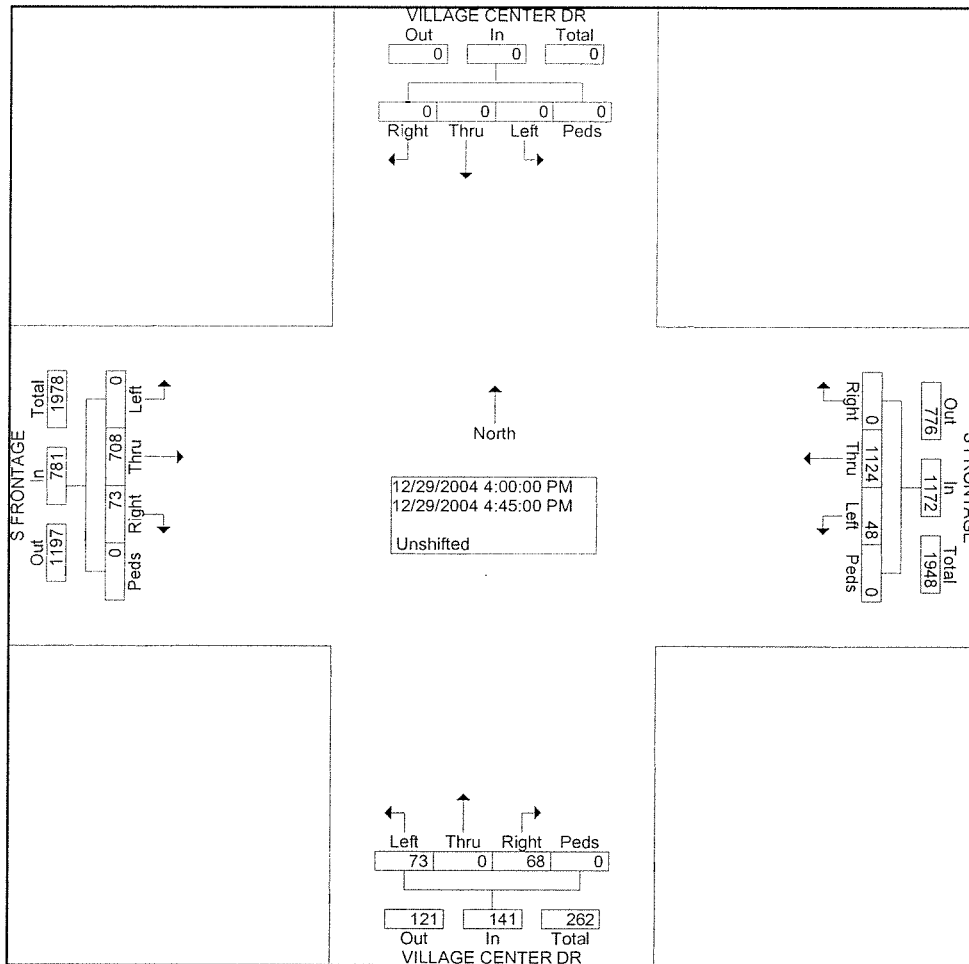
Wheat Ridge, CO 80033 File Name : VILLAGECENTER&FRONTM

Site Code : 00000000

Start Date : 12/29/2004

Page No : 2

Start Time	VILLAGE CENTER DR Southbound					S FRONTAGE Westbound					VILLAGE CENTER DR Northbound					S FRONTAGE Eastbound					Int. 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	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	0	0	0	0	0	48	112	0	0	1172	73	0	68	0	141	0	708	73	0	781	2094
Percent	0.0	0.0	0.0	0.0		4.1	95.9	0.0	0.0		51.8	0.0	48.2	0.0		0.0	90.7	9.3	0.0		
04:15 Volume	0	0	0	0	0	16	320	0	0	336	22	0	19	0	41	0	192	21	0	213	590
Peak Factor																					0.887
High Int.	3:15:00 PM					04:15 PM					04:15 PM					04:00 PM					
Volume	0	0	0	0	0	16	320	0	0	336	22	0	19	0	41	0	195	26	0	221	
Peak Factor																					0.883



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File Name : FRONT&PARKINGPM

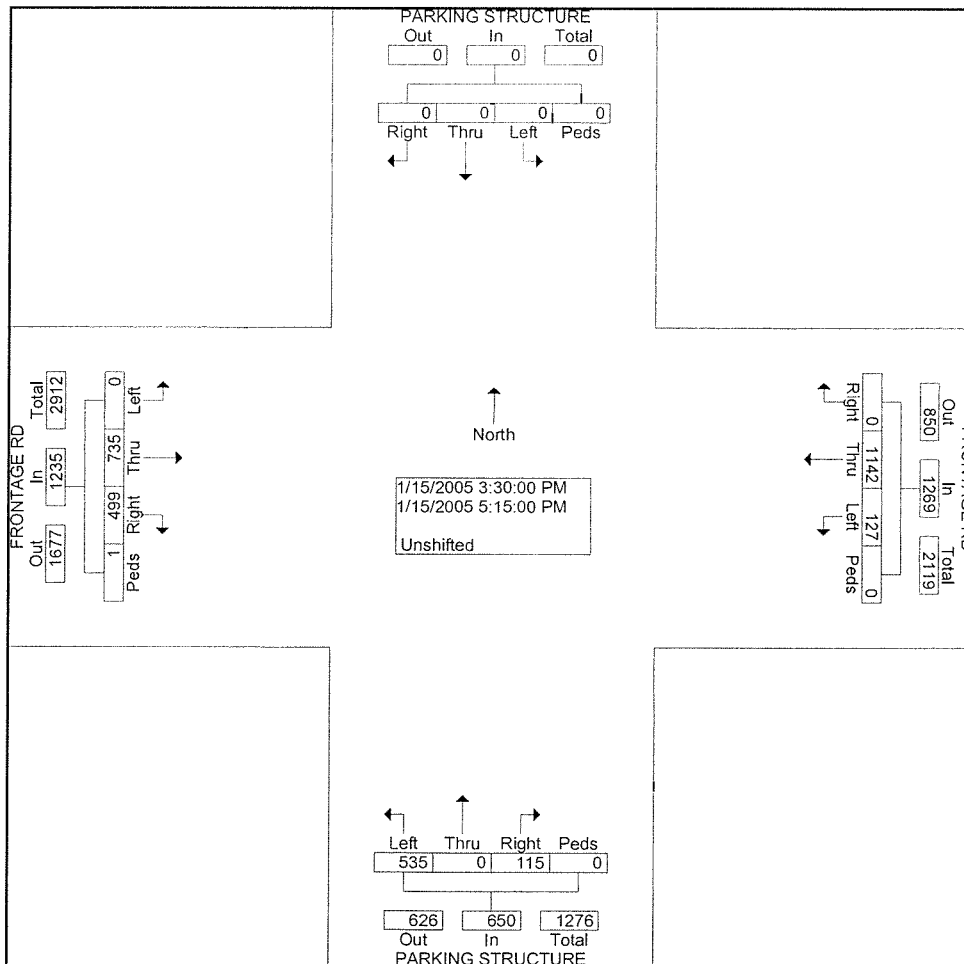
Site Code : 00000000

Start Date : 1/15/2005

Page No : 1

Groups Printed- Unshifted

Start Time	PARKING STRUCTURE Southbound				FRONTAGE RD Westbound				PARKING STRUCTURE Northbound				FRONTAGE RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:30 PM	0	0	0	0	9	157	0	0	53	0	7	0	0	115	43	0	384
03:45 PM	0	0	0	0	14	158	0	0	65	0	19	0	0	89	62	0	407
Total	0	0	0	0	23	315	0	0	118	0	26	0	0	204	105	0	791
04:00 PM	0	0	0	0	15	161	0	0	73	0	19	0	0	83	57	0	408
04:15 PM	0	0	0	0	18	149	0	0	81	0	17	0	0	108	50	0	423
04:30 PM	0	0	0	0	10	160	0	0	82	0	13	0	0	86	68	0	419
04:45 PM	0	0	0	0	17	129	0	0	84	0	15	0	0	95	91	0	431
Total	0	0	0	0	60	599	0	0	320	0	64	0	0	372	266	0	1681
05:00 PM	0	0	0	0	29	135	0	0	51	0	19	0	0	73	62	0	369
05:15 PM	0	0	0	0	15	93	0	0	46	0	6	0	0	86	66	1	313
Grand Total	0	0	0	0	127	1142	0	0	535	0	115	0	0	735	499	1	3154
Apprch %	0.0	0.0	0.0	0.0	10.0	90.0	0.0	0.0	82.3	0.0	17.7	0.0	0.0	59.5	40.4	0.1	
Total %	0.0	0.0	0.0	0.0	4.0	36.2	0.0	0.0	17.0	0.0	3.6	0.0	0.0	23.3	15.8	0.0	



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Wheat Ridge, CO 80033 File Name : VILLAGESTRUCT&FRONTM

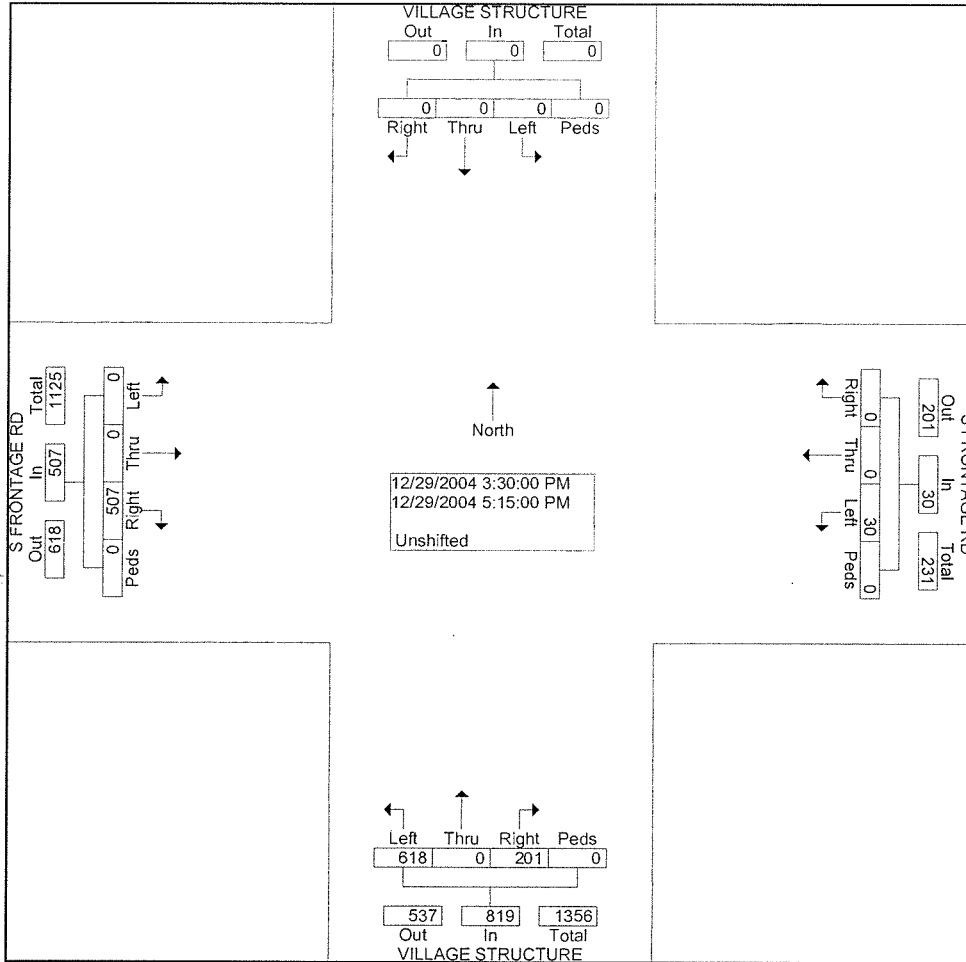
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Start Date : 12/29/2004

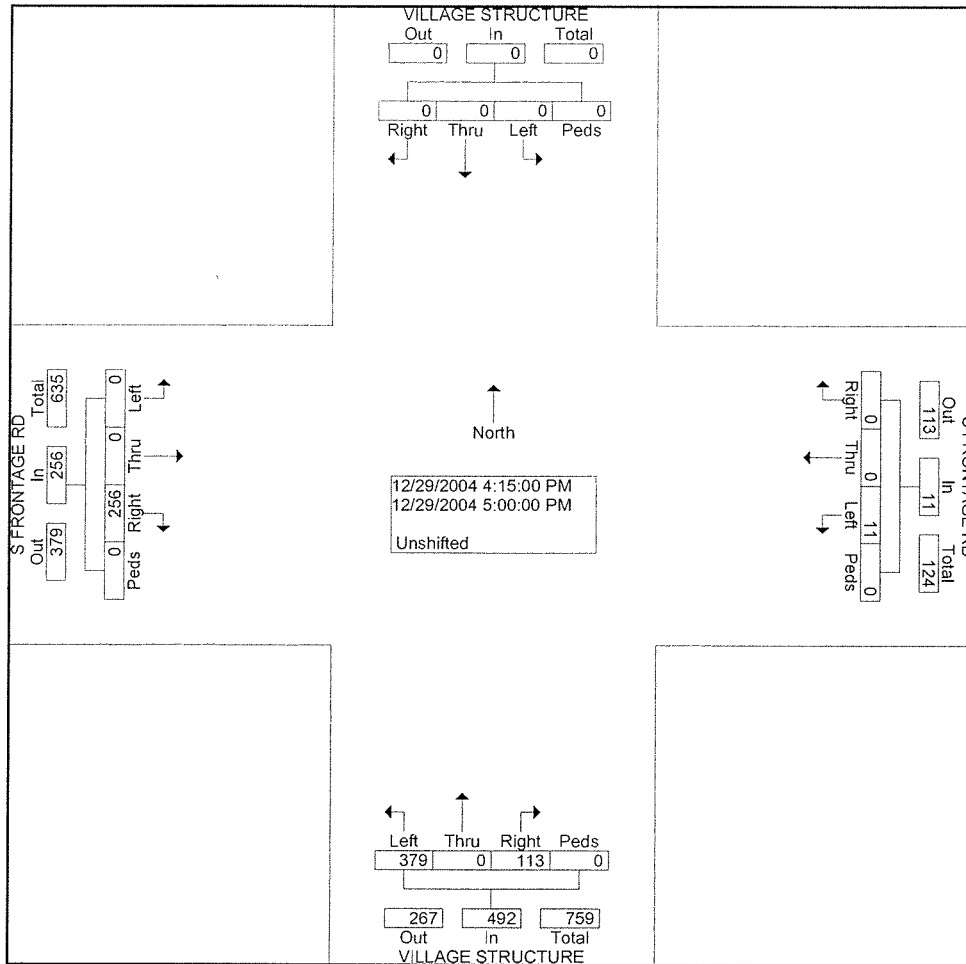
Page No : 1

Groups Printed- Unshifted

Start Time	VILLAGE STRUCTURE Southbound				S FRONTAGE RD Westbound				VILLAGE STRUCTURE Northbound				S FRONTAGE RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:30 PM	0	0	0	0	8	0	0	0	55	0	24	0	0	0	54	0	141
03:45 PM	0	0	0	0	5	0	0	0	45	0	19	0	0	0	53	0	122
Total	0	0	0	0	13	0	0	0	100	0	43	0	0	0	107	0	263
04:00 PM	0	0	0	0	4	0	0	0	51	0	21	0	0	0	77	0	153
04:15 PM	0	0	0	0	8	0	0	0	77	0	19	0	0	0	84	0	188
04:30 PM	0	0	0	0	1	0	0	0	94	0	23	0	0	0	55	0	173
04:45 PM	0	0	0	0	0	0	0	0	111	0	34	0	0	0	51	0	196
Total	0	0	0	0	13	0	0	0	333	0	97	0	0	0	267	0	710
05:00 PM	0	0	0	0	2	0	0	0	97	0	37	0	0	0	66	0	202
05:15 PM	0	0	0	0	2	0	0	0	88	0	24	0	0	0	67	0	181
Grand Total	0	0	0	0	30	0	0	0	618	0	201	0	0	0	507	0	1356
Apprch %	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	75.5	0.0	24.5	0.0	0.0	0.0	100.0	0.0	
Total %	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	45.6	0.0	14.8	0.0	0.0	0.0	37.4	0.0	



Start Time	VILLAGE STRUCTURE Southbound					S FRONTAGE RD Westbound					VILLAGE STRUCTURE Northbound					S FRONTAGE RD Eastbound					Int. 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	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Intersection	04:15 PM																				
Volume	0	0	0	0	0	11	0	0	0	11	379	0	113	0	492	0	0	256	0	256	759
Percent	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	77.0	0.0	23.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	
05:00 Volume	0	0	0	0	0	2	0	0	0	2	97	0	37	0	134	0	0	66	0	66	202
Peak Factor	0.939																				
High Int.	3:15:00 PM					04:15 PM					04:45 PM					04:15 PM					
Volume	0	0	0	0	0	8	0	0	0	8	111	0	34	0	145	0	0	84	0	84	
Peak Factor						0.344					0.848					0.762					



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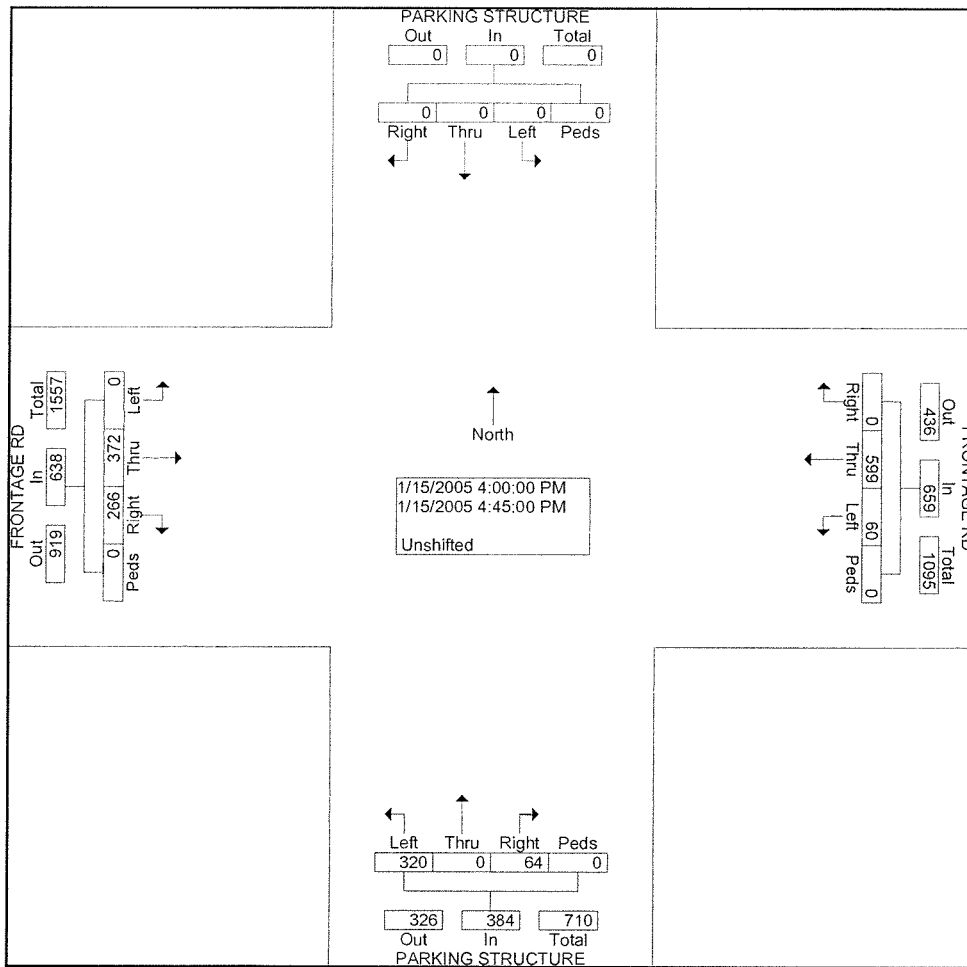
File Name : FRONT&PARKINGPM

Site Code : 00000000

Start Date : 1/15/2005

Page No : 2

Start Time	PARKING STRUCTURE Southbound					FRONTAGE RD Westbound					PARKING STRUCTURE Northbound					FRONTAGE RD Eastbound					Int. 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	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Intersection 04:00 PM																					
Volume	0	0	0	0	0	60	599	0	0	659	320	0	64	0	384	0	372	266	0	638	1681
Percent	0.0	0.0	0.0	0.0		9.1	90.9	0.0	0.0		83.3	0.0	16.7	0.0		0.0	58.3	41.7	0.0		
04:45 Volume	0	0	0	0	0	17	129	0	0	146	84	0	15	0	99	0	95	91	0	186	431
Peak Factor																					
High Int. Volume	3:15:00 PM					04:00 PM					04:45 PM					04:45 PM					
Peak Factor	0	0	0	0	0	15	161	0	0	176	84	0	15	0	99	0	95	91	0	186	0.85
						0.93					0.97					0.85					
						6					0					8					



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9660 W 44th Ave

Wheat Ridge, CO 80033 File Name : VAILVALLEY&FRONTM

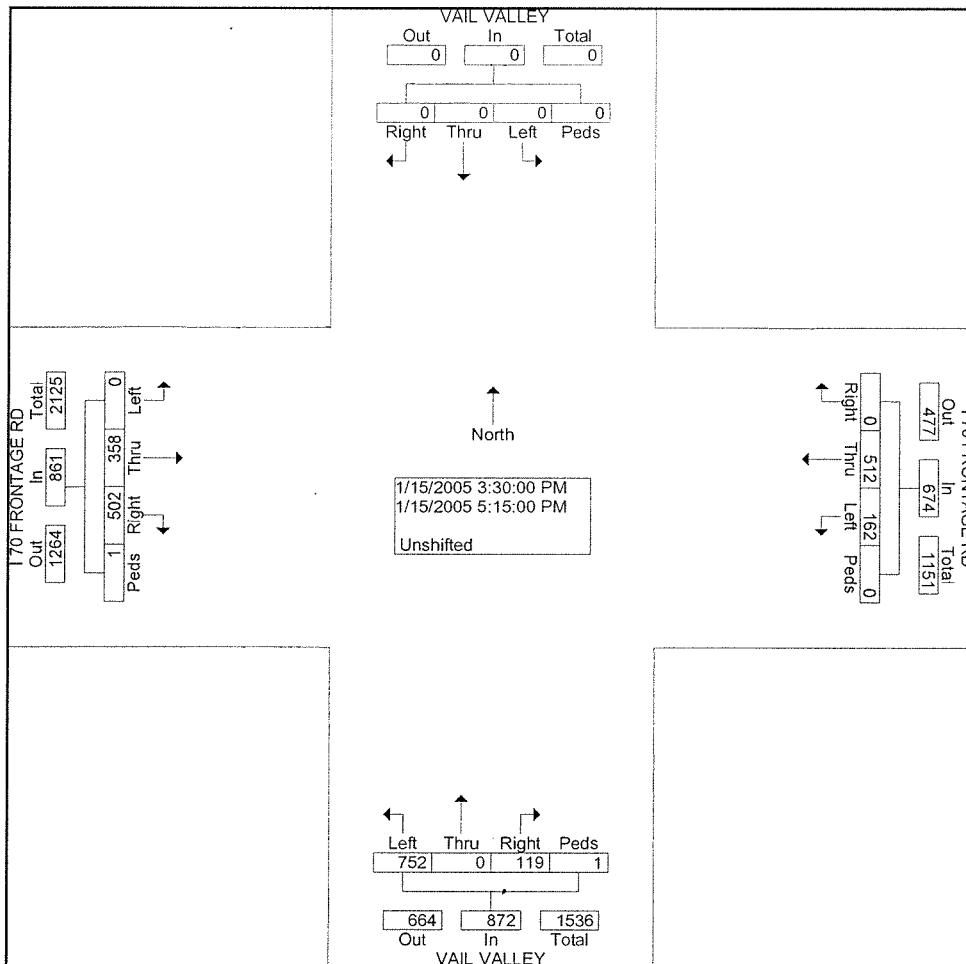
www.alltrafficdata.net Site Code : 00000000

Start Date : 1/15/2005

Page No : 1

Groups Printed- Unshifted

Start Time	VAIL VALLEY Southbound				I 70 FRONTAGE RD Westbound				VAIL VALLEY Northbound				I 70 FRONTAGE RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:30 PM	0	0	0	0	12	53	0	0	112	0	11	0	0	49	76	0	313
03:45 PM	0	0	0	0	13	70	0	0	110	0	17	1	0	45	67	0	323
Total	0	0	0	0	25	123	0	0	222	0	28	1	0	94	143	0	636
04:00 PM	0	0	0	0	26	47	0	0	125	0	24	0	0	43	59	0	324
04:15 PM	0	0	0	0	30	66	0	0	95	0	17	0	0	44	62	0	314
04:30 PM	0	0	0	0	28	99	0	0	77	0	15	0	0	43	54	0	316
04:45 PM	0	0	0	0	25	55	0	0	87	0	16	0	0	52	65	0	300
Total	0	0	0	0	109	267	0	0	384	0	72	0	0	182	240	0	1254
05:00 PM	0	0	0	0	24	68	0	0	87	0	11	0	0	45	63	0	298
05:15 PM	0	0	0	0	4	54	0	0	59	0	8	0	0	37	56	1	219
Grand Total	0	0	0	0	162	512	0	0	752	0	119	1	0	358	502	1	2407
Apprch %	0.0	0.0	0.0	0.0	24.0	76.0	0.0	0.0	86.2	0.0	13.6	0.1	0.0	41.6	58.3	0.1	
Total %	0.0	0.0	0.0	0.0	6.7	21.3	0.0	0.0	31.2	0.0	4.9	0.0	0.0	14.9	20.9	0.0	



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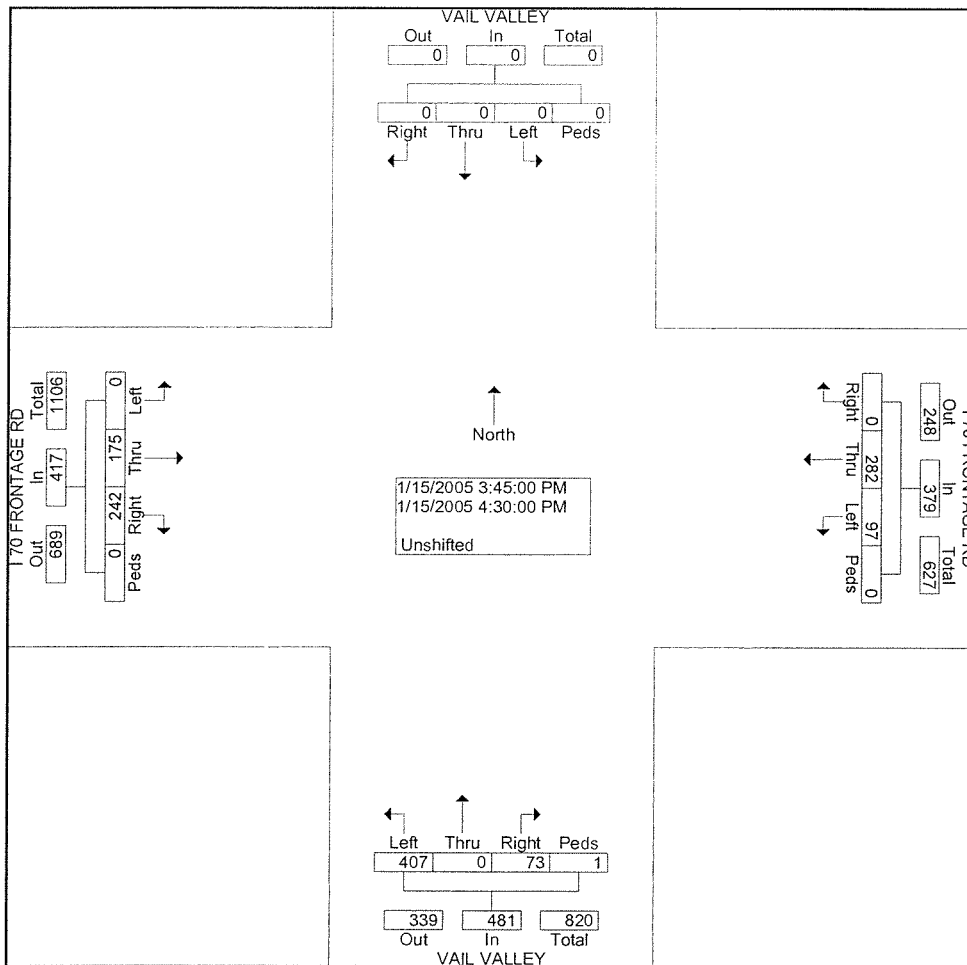
Wheat Ridge, CO 80033 File Name : VAILVALLEY&FRONTM

www.alltrafficdata.net Site Code : 00000000

Start Date : 1/15/2005

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Start Time	VAIL VALLEY Southbound					I 70 FRONTAGE RD Westbound					VAIL VALLEY Northbound					I 70 FRONTAGE RD Eastbound					Int. 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	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Intersection	03:45 PM																				
Volume	0	0	0	0	0	97	282	0	0	379	407	0	73	1	481	0	175	242	0	417	1277
Percent	0.0	0.0	0.0	0.0		25.6	74.4	0.0	0.0		84.6	0.0	15.2	0.2		0.0	42.0	58.0	0.0		
04:00 Volume	0	0	0	0	0	26	47	0	0	73	125	0	24	0	149	0	43	59	0	102	324
Peak Factor	0.985																				
High Int. Volume	3:15:00 PM					04:30 PM					04:00 PM					03:45 PM					
Peak Factor	0	0	0	0	0	28	99	0	0	127	125	0	24	0	149	0	45	67	0	112	
						0.74					0.80					0.93					
						6					7					1					



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9660 W 44th Ave

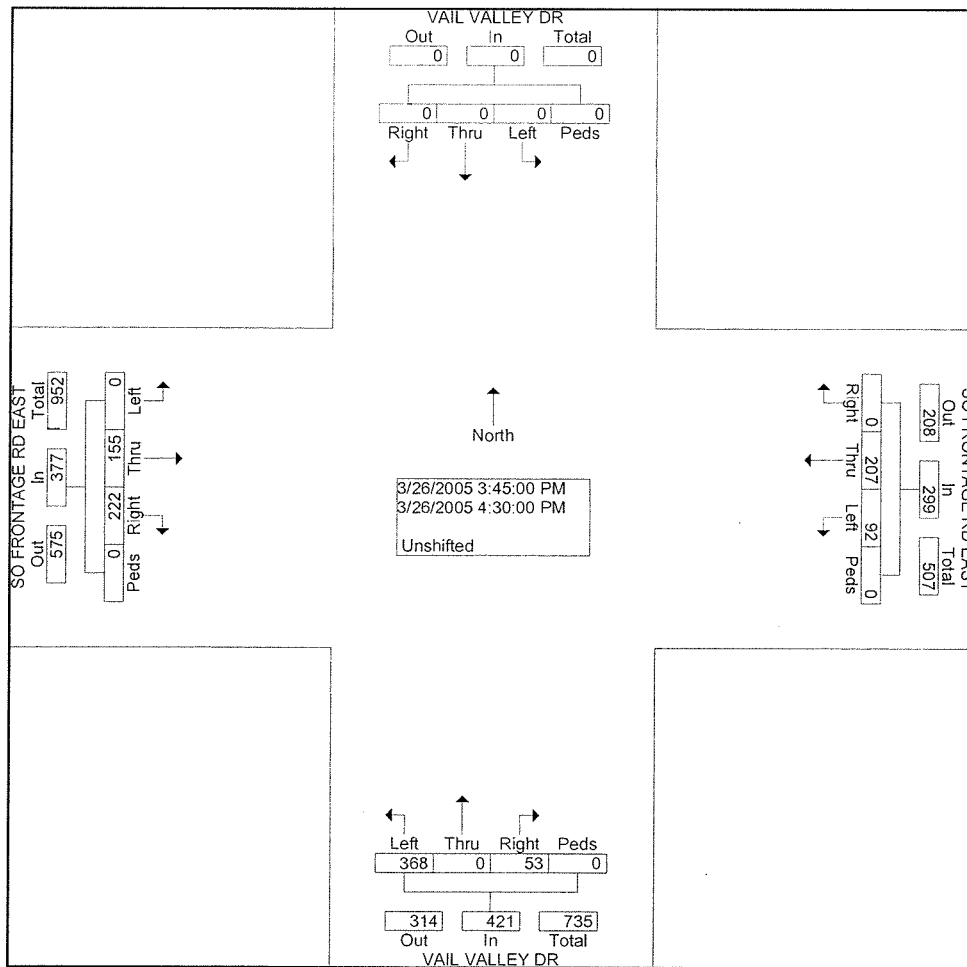
Wheat Ridge, CO 80033 File Name : VVALLEY&SFRONTM

www.alltrafficdata.net Site Code : 00000000

Start Date : 3/26/2005

Page No : 2

Start Time	VAIL VALLEY DR Southbound					SO FRONTAGE RD EAST Westbound					VAIL VALLEY DR Northbound					SO FRONTAGE RD EAST Eastbound					Int. 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	
Intersection	03:45 PM																				
Volume	0	0	0	0	0	92	207	0	0	299	368	0	53	0	421	0	155	222	0	377	1097
Percent	0.0	0.0	0.0	0.0		30.8	69.2	0.0	0.0		87.4	0.0	12.6	0.0		0.0	41.1	58.9	0.0		
04:15 Volume	0	0	0	0	0	23	63	0	0	86	90	0	15	0	105	0	42	55	0	97	288
Peak Factor	0.952																				
High Int. Volume	3:15:00 PM																				
Peak Factor	0	0	0	0	0	23	63	0	0	86	111	0	12	0	123	0	44	72	0	116	0.813



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Wheat Ridge, CO 80033 File Name : VVALLEY&SFRONTPM

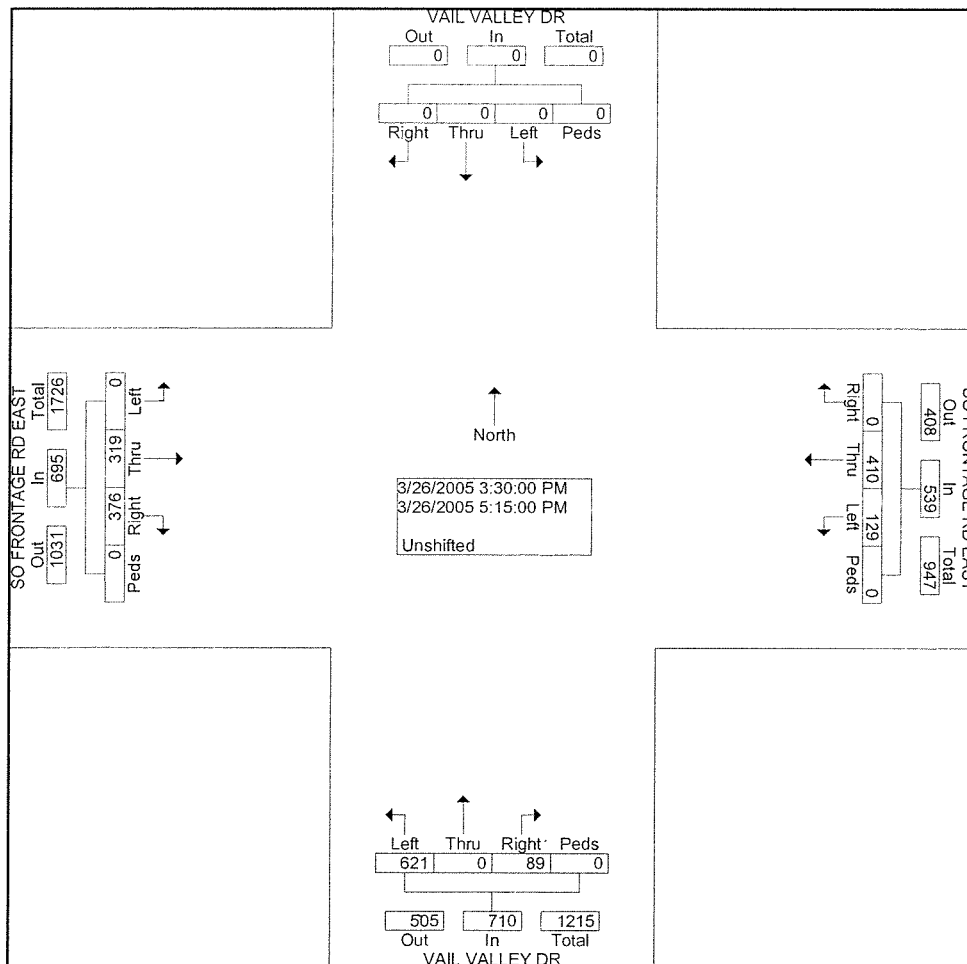
www.alltrafficdata.net Site Code : 00000000

Start Date : 3/26/2005

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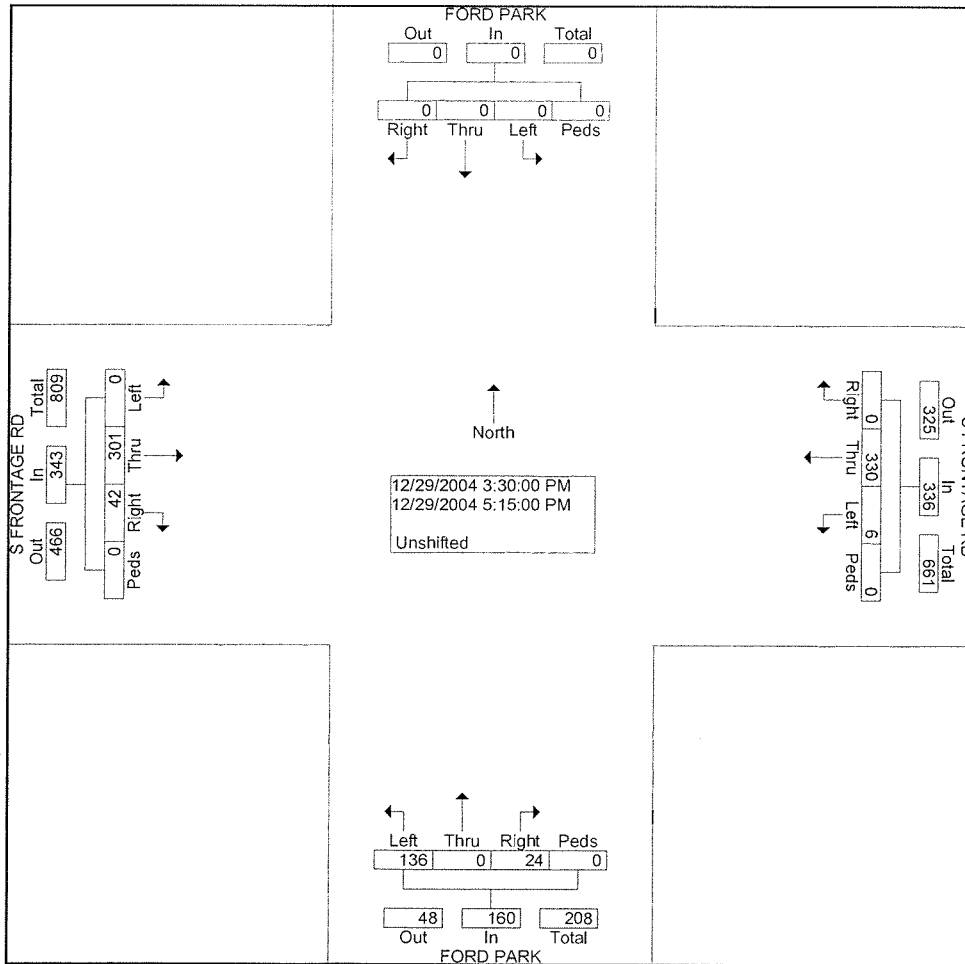
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Start Time	VAIL VALLEY DR Southbound				SO FRONTAGE RD EAST Westbound				VAIL VALLEY DR Northbound				SO FRONTAGE RD EAST Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:30 PM	0	0	0	0	14	35	0	0	78	0	9	0	0	43	47	0	226
03:45 PM	0	0	0	0	29	39	0	0	83	0	17	0	0	44	72	0	284
Total	0	0	0	0	43	74	0	0	161	0	26	0	0	87	119	0	510
04:00 PM	0	0	0	0	18	53	0	0	111	0	12	0	0	30	49	0	273
04:15 PM	0	0	0	0	23	63	0	0	90	0	15	0	0	42	55	0	288
04:30 PM	0	0	0	0	22	52	0	0	84	0	9	0	0	39	46	0	252
04:45 PM	0	0	0	0	18	53	0	0	66	0	13	0	0	38	41	0	229
Total	0	0	0	0	81	221	0	0	351	0	49	0	0	149	191	0	1042
05:00 PM	0	0	0	0	3	58	0	0	52	0	7	0	0	35	39	0	194
05:15 PM	0	0	0	0	2	57	0	0	57	0	7	0	0	48	27	0	198
Grand Total	0	0	0	0	129	410	0	0	621	0	89	0	0	319	376	0	1944
Apprch %	0.0	0.0	0.0	0.0	23.9	76.1	0.0	0.0	87.5	0.0	12.5	0.0	0.0	45.9	54.1	0.0	
Total %	0.0	0.0	0.0	0.0	6.6	21.1	0.0	0.0	31.9	0.0	4.6	0.0	0.0	16.4	19.3	0.0	

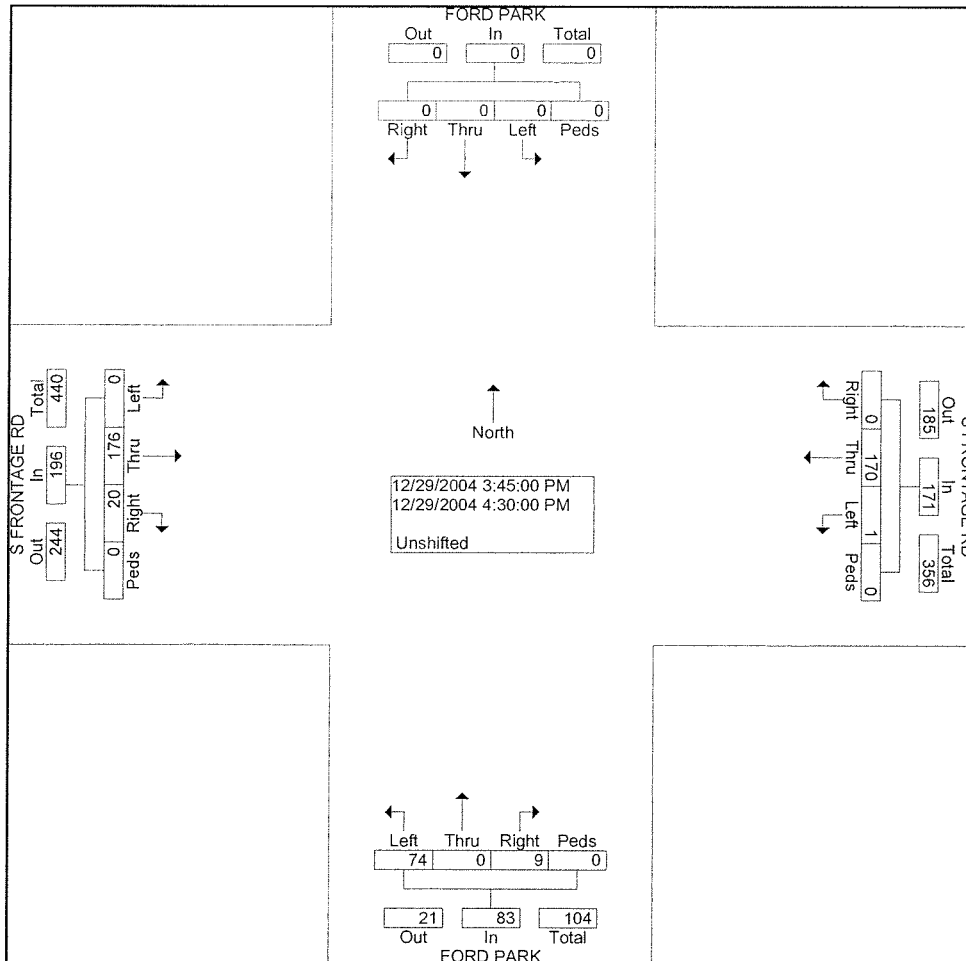


Groups Printed- Unshifted

Start Time	FORD PARK Southbound				S FRONTAGE RD Westbound				FORD PARK Northbound				S FRONTAGE RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:30 PM	0	0	0	0	1	43	0	0	12	0	3	0	0	35	4	0	98
03:45 PM	0	0	0	0	0	44	0	0	13	0	3	0	0	42	6	0	108
Total	0	0	0	0	1	87	0	0	25	0	6	0	0	77	10	0	206
04:00 PM	0	0	0	0	0	43	0	0	15	0	2	0	0	41	3	0	104
04:15 PM	0	0	0	0	0	48	0	0	24	0	2	0	0	57	5	0	136
04:30 PM	0	0	0	0	1	35	0	0	22	0	2	0	0	36	6	0	102
04:45 PM	0	0	0	0	1	42	0	0	21	0	4	0	0	29	8	0	105
Total	0	0	0	0	2	168	0	0	82	0	10	0	0	163	22	0	447
05:00 PM	0	0	0	0	2	35	0	0	13	0	3	0	0	30	7	0	90
05:15 PM	0	0	0	0	1	40	0	0	16	0	5	0	0	31	3	0	96
Grand Total	0	0	0	0	6	330	0	0	136	0	24	0	0	301	42	0	839
Apprch %	0.0	0.0	0.0	0.0	1.8	98.2	0.0	0.0	85.0	0.0	15.0	0.0	0.0	87.8	12.2	0.0	
Total %	0.0	0.0	0.0	0.0	0.7	39.3	0.0	0.0	16.2	0.0	2.9	0.0	0.0	35.9	5.0	0.0	



Start Time	FORD PARK Southbound					S FRONTAGE RD Westbound					FORD PARK Northbound					S FRONTAGE RD Eastbound					Int. Total
	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	Left	Thru	Rght	Peds	App. Total	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																					
Intersection	03:45 PM																				
Volume	0	0	0	0	0	1	170	0	0	171	74	0	9	0	83	0	176	20	0	196	450
Percent	0.0	0.0	0.0	0.0	0.0	0.6	99.4	0.0	0.0	0.0	89.2	0.0	10.8	0.0	0.0	0.0	89.8	10.2	0.0	0.0	
Volume	0	0	0	0	0	0	48	0	0	48	24	0	2	0	26	0	57	5	0	62	136
Peak Factor	0.827																				
High Int.	3:15:00 PM					04:15 PM					04:15 PM					04:15 PM					
Volume	0	0	0	0	0	0	48	0	0	48	24	0	2	0	26	0	57	5	0	62	62
Peak Factor						0.891					0.798					0.790					



APPENDIX B EXISTING LOS CALCULATIONS



Movement Summary

N Frontage Rd Chamonix Dr AM Ex * NF C_AX *

snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Chamonix Dr										
3L	L	86	2.3	0.126	10.7	LOS B	18	0.19	0.63	22.7
8T	T	11	9.1	0.125	2.6	LOS A	18	0.19	0.28	24.9
8R	R	571	5.1	0.727	5.1	LOS A	86	1.00	0.38	22.5
Approach		669	4.8	0.727	5.8	LOS A	86	0.88	0.41	22.6
WB I-70 Off Ramps										
11L	L	29	3.4	0.059	13.1	LOS B	9	0.63	0.77	22.0
16T	T	47	2.1	0.079	5.1	LOS A	13	0.64	0.59	23.6
16R	R	18	5.3	0.079	6.6	LOS A	13	0.64	0.66	23.2
Approach		95	3.2	0.079	7.8	LOS A	13	0.64	0.66	23.0
WB N Frontage Rd										
1L	L	258	5.0	0.237	13.2	LOS B	37	0.34	0.69	29.1
6T	T	264	4.9	0.258	11.3	LOS B	41	0.35	0.66	29.9
6R	R	17	5.6	0.257	7.5	LOS A	41	0.35	0.57	32.0
Approach		540	5.0	0.258	12.1	LOS B	41	0.34	0.67	29.6
SB Chamonix Dr										
7L	L	35	2.9	0.152	12.3	LOS B	19	0.55	0.82	22.1
4T	T	58	1.7	0.152	5.3	LOS A	19	0.55	0.61	23.9
4R	R	4	20.0	0.152	6.3	LOS A	19	0.55	0.65	23.6
Approach		98	3.1	0.152	7.8	LOS A	19	0.55	0.69	23.2
EB N Frontage Rd										
5L	L	1	50.0	0.016	12.2	LOS B	2	0.54	0.74	22.2
2T	T	7	12.5	0.016	5.2	LOS A	2	0.54	0.51	24.0
2R	R	17	5.6	0.022	4.9	LOS A	3	0.39	0.47	23.8
Approach		28	10.7	0.022	5.5	LOS A	3	0.44	0.50	23.7
All Vehicles		1430	4.8	0.727	8.5	LOS A	86	0.63	0.55	25.0

Symbols which may appear in this table:



Movement Summary

S Frontage Rd Chamonix Dr AM Ex * SF C_AX *

snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Chamonix Dr										
3L	L	4	20.0	0.208	17.2	LOS B	31	0.77	0.92	20.6
8T	T	65	1.5	0.204	10.2	LOS B	31	0.77	0.82	22.2
8R	R	8	11.1	0.205	11.2	LOS B	31	0.77	0.80	21.8
Approach		79	3.8	0.204	10.8	LOS B	31	0.77	0.83	22.0
WB S Frontage Rd										
1L	L	13	7.1	0.075	10.8	LOS B	11	0.47	0.68	22.5
6T	T	55	1.8	0.075	3.9	LOS A	11	0.47	0.45	24.2
6R	R	395	5.1	0.311	3.2	LOS A	50	0.17	0.34	24.6
Approach		465	4.7	0.311	3.5	LOS A	50	0.22	0.36	24.5
SB Chamonix Dr										
7L	L	319	4.7	0.296	9.7	LOS A	53	0.25	0.61	22.8
4T	T	6	14.3	0.292	2.6	LOS A	53	0.25	0.30	24.8
4R	R	7	12.5	0.296	3.5	LOS A	53	0.25	0.37	24.4
Approach		334	5.1	0.296	9.4	LOS A	53	0.25	0.60	22.9
EB I-70 Off Ramps										
15L	L	278	2.2	0.383	13.4	LOS B	65	0.59	0.80	22.0
12T	T	575	1.9	0.510	10.2	LOS B	110	0.65	0.72	22.4
12R	R	6	14.3	0.500	6.1	LOS A	110	0.65	0.41	23.2
Approach		860	2.1	0.510	11.2	LOS B	110	0.63	0.74	22.3
EB S Frontage Rd										
5L	L	6	14.3	0.250	16.4	LOS B	38	0.76	0.92	20.9
2T	T	90	2.2	0.251	10.3	LOS B	38	0.76	0.84	22.3
2R	R	5	16.7	0.250	10.3	LOS B	38	0.76	0.82	22.1
Approach		104	3.8	0.251	10.7	LOS B	38	0.76	0.84	22.2
All Vehicles		1842	3.5	0.510	8.9	LOS A	110	0.47	0.63	22.9

Symbols which may appear in this table:



Movement Summary

N Frontage Rd Vail Rd AM Ex * NF VR_AX

snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Vail Rd										
3L	L	271	5.1	0.356	9.1	LOS A	83	0.07	0.64	22.9
8T	T	247	4.9	0.355	7.8	LOS A	83	0.07	0.61	23.2
Approach		519	5.0	0.355	8.5	LOS A	83	0.07	0.62	23.0
WB I-70 Off Ramps										
1L	L	958	2.0	1.142	90.9	LOS F	1525	1.00	3.42	10.0
6T	T	66	1.5	0.174	9.7	LOS A	23	0.60	0.74	22.3
6R	R	6	14.3	0.175	11.4	LOS B	23	0.60	0.81	21.6
Approach		1031	2.0	1.142	85.2	LOS F	1525	0.97	3.23	10.3
WB Spraddle Creek										
14T	T	12	7.7	0.040	19.6	LOS B	8	0.88	0.85	19.3
14R	R	6	14.3	0.040	19.7	LOS B	8	0.88	0.86	19.1
Approach		20	10.0	0.040	19.6	LOS B	8	0.88	0.86	19.3
EB I-70 Off Ramps										
15L	L	6	14.3	0.875	35.7	LOS D	293	1.00	1.43	16.2
12T	T	355	5.1	0.852	28.8	LOS C	293	0.99	1.43	17.0
12R	R	24	4.0	0.171	18.6	LOS B	25	0.80	0.91	19.4
Approach		388	5.2	0.851	28.3	LOS C	293	0.98	1.39	17.1
All Vehicles		1958	3.5	1.142	52.9	LOS D	1525	0.73	2.15	13.4

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Movement Summary

S Frontage Rd Vail Rd AM Ex * SF VR_AX

snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Vail Rd										
3L	L	108	1.9	0.460	31.0	LOS C	99	0.96	1.11	17.6
8T	T	127	2.4	0.458	20.9	LOS C	109	0.99	1.12	18.9
8R	R	42	2.4	0.457	21.5	LOS C	109	0.99	1.12	18.7
Approach		277	2.2	0.459	24.9	LOS C	109	0.98	1.12	18.3
WB S Frontage Rd										
1L	L	60	1.7	0.069	10.5	LOS B	10	0.43	0.66	22.7
6T	T	277	5.1	0.255	2.7	LOS A	43	0.47	0.31	24.4
6R	R	434	4.8	0.328	4.0	LOS A	62	0.48	0.43	23.8
Approach		771	4.7	0.328	4.0	LOS A	62	0.47	0.41	23.9
SB Vail Rd										
7L	L	970	4.9	1.087	62.6	LOS E	1375	1.00	2.83	12.9
4T	T	157	1.9	1.091	54.9	LOS D	1375	1.00	2.83	13.0
4R	R	211	5.2	0.581	8.9	LOS A	70	0.62	0.81	22.6
Approach		1337	4.6	1.088	53.2	LOS D	1375	0.94	2.51	13.8
EB I-70 Off Ramps										
15L	L	12	7.7	0.520	36.3	LOS D	104	0.94	1.13	16.7
12T	T	295	2.0	0.699	30.2	LOS C	209	0.98	1.25	17.4
12R	R	108	1.9	0.701	25.3	LOS C	209	1.00	1.31	17.8
Approach		416	2.2	0.700	29.1	LOS C	209	0.98	1.26	17.5
EB S Frontage Rd										
5L	L	24	4.2	0.393	25.4	LOS C	94	1.00	1.06	18.8
2T	T	355	4.8	0.627	24.1	LOS C	220	1.00	1.22	18.3
2R	R	96	2.1	0.317	16.1	LOS B	71	1.00	1.00	20.2
Approach		476	4.2	0.627	22.6	LOS C	220	1.00	1.17	18.7
All Vehicles		3277	4.1	1.091	31.7	LOS C	1375	0.85	1.54	16.8

Symbols which may appear in this table:



Output Tables

N Frontage Rd & Chamonix Dr PM Ex

snow

Run Information

```
* Basic Parameters:
Intersection Type: Roundabout
Driving on the right-hand side of the road
Input data specified in US units
Model Defaults: US HCM (US)
Peak Flow Period (for performance): 15 minutes
Unit time (for volumes): 60 minutes.
Delay definition: Control delay
                  Geometric delay included
HCM Delay Model option selected
HCM Queue Model option selected
Level of Service based on: Delay (HCM method)
Queue definition: Back of queue, 95th Percentile
```

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

```
N Frontage Rd  Chamonix Dr PM Ex
snow
Intersection ID: 1
Roundabout
```

From Approach	To Approach	Mov ID	Turn	Flow Rate LV	Flow Rate HV	Flow Scale	Peak Flow Factor
West: EB N Frontage Rd							
	West	5L	Left	0	0	1.00	0.83
	SouthWest	2R	Right	48	1	1.00	0.83
	South	2R	Right	58	1	1.00	0.83
	East	2T	Thru	25	1	1.00	0.83
	North	5L	Left	4	0	1.00	0.83
South: NB Chamonix Dr							
	West	3L	Left	11	0	1.00	0.83
	SouthWest	3L	Left	464	9	1.00	0.83
	South	3L	Left	0	0	1.00	0.83
	East	8R	Right	789	42	1.00	0.83
	North	8T	Thru	35	2	1.00	0.83
SouthEast: WB I-70 Off Ramps							
	West	16T	Thru	6	0	1.00	0.83
	SouthWest	11L	Left	4	0	1.00	0.83
	South	11L	Left	11	0	1.00	0.83

East	16R	Right	266	5	1.00	0.83
North	16T	Thru	25	1	1.00	0.83

East: WB N Frontage Rd						
West	6T	Thru	45	1	1.00	0.83
SouthWest	6T	Thru	420	22	1.00	0.83
South	1L	Left	559	29	1.00	0.83
North	6R	Right	34	1	1.00	0.83

North: SB Chamonix Dr						
West	4R	Right	1	0	1.00	0.83
SouthWest	4T	Thru	44	1	1.00	0.83
South	4T	Thru	11	0	1.00	0.83
East	7L	Left	17	0	1.00	0.83
North	7L	Left	0	0	1.00	0.83

Unit Time for Volumes = 60 minutes
 Peak Flow Period = 15 minutes
 Flow Rates include effects of Flow Scale and Peak Flow Factor

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

N Frontage Rd Chamonix Dr PM Ex
 snow
 Intersection ID: 1
 Roundabout

Mov ID	Left		Through		Right	
	Total	%HV	Total	%HV	Total	%HV

Demand flows in veh/hour as used by the program						
West: EB N Frontage Rd						
5L L	5	20.0	0	0.0	0	0.0
2T T	0	0.0	26	3.8	0	0.0
2R R	0	0.0	0	0.0	108	1.9

South: NB Chamonix Dr						
3L L	485	2.1	0	0.0	0	0.0
8T T	0	0.0	37	5.4	0	0.0
8R R	0	0.0	0	0.0	831	5.1

SouthEast: WB I-70 Off Ramps						
11L L	15	6.7	0	0.0	0	0.0
16T T	0	0.0	32	3.1	0	0.0
16R R	0	0.0	0	0.0	271	1.8

East: WB N Frontage Rd						
1L L	588	4.9	0	0.0	0	0.0
6T T	0	0.0	488	4.7	0	0.0
6R R	0	0.0	0	0.0	35	2.9

North: SB Chamonix Dr						
7L L	18	5.6	0	0.0	0	0.0
4T T	0	0.0	55	1.8	0	0.0
4R R	0	0.0	0	0.0	2	50.0

Unit Time for Volumes = 60 minutes
 Peak Flow Period = 15 minutes
 Flow Rates include effects of Flow Scale and Peak Flow Factor

Table S.2 - Movement Capacity Parameters

N Frontage Rd Chamonix Dr PM Ex
 snow
 Intersection ID: 1
 Roundabout

Mov ID	Demand		Opposing Movement Flow		Adjust. Flow (pcu/h)	Total Cap. (veh/h)	Prac. Deg. xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
	Flow (veh/h)	HV (%)	Flow (veh/h)	HV (%)						
West: EB N Frontage Rd										
5L L	5	20.0	1590	3.9	1594	56	0.85	852	42	0.089
2T T	26	3.8	1590	3.9	1594	292	0.85	855	42	0.089
2R R	108	1.9	964	3.4	966	510	0.85	301	100	0.212
South: NB Chamonix Dr										
3L L	485	2.1	46	2.0	46	570	0.85	0	100	0.851
8T T	764E	0.3	46	2.0	46	43	0.85	-1	28	0.860*
8R R	104	40.5	46	2.0	46	441<	0.85	261	28	0.235
SouthEast: WB I-70 Off Ramps										
11L L	15	6.7	1398	3.9	1401	266	0.85	1407	75	0.056
16T T	32	3.1	1398	3.9	1401	425	0.85	1029	75	0.075
16R R	271	1.8	872	4.9	875	801	0.85	151	100	0.338
East: WB N Frontage Rd										
1L L	588	4.9	571	2.2	571	768	0.85	11	100	0.766
6T T	488	4.7	571	2.2	571	707	0.85	23	90	0.690
6R R	35	2.9	571	2.2	571	51	0.85	24	90	0.686
North: SB Chamonix Dr										
7L L	18	5.6	1581	4.0	1584	65	0.85	207	100	0.277
4T T	55	1.8	1581	4.0	1584	199	0.85	208	100	0.276
4R R	2	50.0	1581	4.0	1584	7	0.85	198	100	0.286

E "Excess" flow from the short lane of an adjacent movement added to normal flow

Table S.5 - Movement Performance

Mov ID	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue 95% Back (vehs)	Queue (ft)	Perf. Index	Aver. Speed (mph)
5L L	0.02	0.03	18.0	0.83	0.94	0.6	15	0.16	20.4
2T T	0.08	0.10	11.0	0.83	0.86	0.6	15	0.75	21.9
2R R	0.32	0.38	10.6	0.81	0.85	1.6	40	2.96	22.0
South: NB Chamonix Dr									
3L L	1.48	1.78	11.0	0.54	0.53	18.7	483	13.56	22.1
8T T	0.03	0.04	0.1	0.03	0.02	18.7	483	0.86	23.9
8R R	0.12	0.14	4.1	0.27	0.39	0.8	20	2.15	24.2
SouthEast: WB I-70 Off Ramps									
11L L	0.09	0.11	21.5	0.81	0.90	0.4	9	0.51	19.6
16T T	0.11	0.13	12.4	0.83	0.83	0.5	13	0.92	21.4
16R R	0.55	0.66	7.3	0.67	0.79	2.1	54	6.52	23.2

```

East: WB N Frontage Rd
 1L L   3.61   4.33   22.1   0.92   1.14   10.6   276   16.94   25.0
 6T T   2.47   2.97   18.2   0.86   1.06    8.2   213   12.75   26.6
 6R R   0.14   0.17   14.5   0.86   1.04    8.2   213    0.86   28.1
-----
North: SB Chamonix Dr
 7L L   0.10   0.12   20.4   0.84   0.95    1.7   43    0.62   19.7
 4T T   0.20   0.24   13.4   0.84   0.88    1.7   43    1.69   21.1
 4R R   0.01   0.01   14.4   0.84   0.90    1.7   43    0.06   20.7
-----
    
```

Table S.6 - Intersection Performance

```

N Frontage Rd   Chamonix Dr PM Ex
snow
Intersection ID: 1
Roundabout
-----
Total   Deg.   Total   Total   Aver.   Prop.   Eff.   Longest   Perf.   Aver.
Flow   Satn   Delay   Delay   Delay   Queued   Stop   Queue   Index   Speed
(veh/h) x (veh-h/h) (pers-h/h) (sec) Rate (ft) (mph)
-----
West: EB N Frontage Rd
 139   0.212   0.42   0.51   11.0   0.81   0.86   40   3.87   21.9
-----
South: NB Chamonix Dr
1353   0.860   1.63   1.96   4.3   0.23   0.23   483  16.57  22.5
-----
SouthEast: WB I-70 Off Ramps
 318   0.338   0.75   0.90   8.5   0.70   0.80   54   7.96   22.8
-----
East: WB N Frontage Rd
1111   0.766   6.22   7.47   20.2   0.89   1.10   276  30.54  25.8
-----
North: SB Chamonix Dr
 75   0.286   0.31   0.38   15.1   0.84   0.90   43   2.37   20.7
-----
ALL VEHICLES:
2996   0.860   9.34   11.21  11.2   0.57   0.66   483  61.32  23.9
-----
INTERSECTION (persons):
3595   0.860   11.21  11.2   0.57   0.66   61.32  23.9
-----
Queue values in this table are 95% back of queue (feet).
    
```

Table S.7 - Lane Performance

```

N Frontage Rd   Chamonix Dr PM Ex
snow
Intersection ID: 1
Roundabout
-----
Dem           Q u e u e
Flow   Cap   Deg.   Aver.   Eff.   95% Back   Lane
Lane   (veh   (veh   Satn   Delay   Stop   -----   Length
No.    /h)    /h)    x    (sec)   Rate   (vehs) (ft)   (ft)
-----
    
```

```

West: EB N Frontage Rd
1 LT      31  348 0.089  12.1  0.87   0.6  15.2  1600.0
2 R       108  510 0.212  10.6  0.85   1.6  39.8  100.0T
-----
South: NB Chamonix Dr
1 LTR    1249 1468 0.851   9.4  0.50  18.7 482.6  1600.0
2 R       104  441 0.235   4.1  0.39   0.8  20.0<  50.0T
-----
SouthEast: WB I-70 Off Ramps
1 LT      17  309 0.056  20.4  0.89   0.4   9.3  1600.0
2 T       30  393 0.075  12.2  0.83   0.5  13.4  1600.0
3 R      271  801 0.338   7.3  0.79   2.1  54.4  1600.0
-----
East: WB N Frontage Rd
1 L       588  768 0.766  22.1  1.14  10.6 276.4  1600.0
2 TR      523  758 0.690  18.0  1.06   8.2 212.8  1600.0
-----
North: SB Chamonix Dr
1 LTR     75  272 0.276  15.1  0.90   1.7  42.7  1600.0
-----

```

< Short lane capacity is reached and there is excess flow into an adjacent lane
T Short lane due to specification of Turn Slot

Table S.8 - Lane Flow and Capacity Information

N Frontage Rd Chamonix Dr PM Ex
snow
Intersection ID: 1
Roundabout

```

-----
Lane          Dem Flow (veh/h)      Min Tot
No.          Lef Thru Rig Tot      Cap Cap Deg. Lane
              /h) /h)      (veh (veh Satn Util
              /h) /h)      /h) /h)      x   %
-----
West: EB N Frontage Rd
1 LT          5  26  0  31    31  348  0.089  42P
2 R           0   0 108 108   108  510  0.212  100
-----
South: NB Chamonix Dr
1 LTR        485  37 727E1249  150 1468  0.851  100
2 R           0   0 104 104   104  441  0.235  28P
-----
SouthEast: WB I-70 Off Ramps
1 LT         15   2  0  17    17  309  0.056  75U
2 T           0  30  0  30    30  393  0.075  100
3 R           0   0 271 271   150  801  0.338  100
-----
East: WB N Frontage Rd
1 L          588   0  0  588   150  768  0.766  100
2 TR         0  488  35 523   150  758  0.690  90P
-----
North: SB Chamonix Dr
1 LTR        18  55  2  75    75  272  0.276  100
-----

```

E "Excess" flow from back of an adjacent short lane
P Lane under-utilisation found by the "Program". This includes cases where the value of lane under-utilisation due to downstream effects has been modified by the program during lane flow calculations (e.g. a de facto exclusive lane has been found).
U Lane under-utilisation specified by the "User"

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle

effects. Saturation flow scale applies if specified.

Table S.15 - Capacity and Level of Service

N Frontage Rd Chamonix Dr PM Ex
 snow
 Intersection ID: 1
 Roundabout

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (ft)
West: EB N Frontage Rd								
5L	L	5	56	0.089	18.0	B	0.6	15
2T	T	26	292	0.089	11.0	B	0.6	15
2R	R (Slp)	108	510	0.212	10.6	B	1.6	40
South: NB Chamonix Dr								
3L	L	485	570	0.851	11.0	B	18.7	483
8T	T	764E	43	0.860*	0.1	A	18.7	483
8R	R	104	441<	0.235	4.1	A	0.8	20
SouthEast: WB I-70 Off Ramps								
11L	L	15	266	0.056	21.5	C	0.4	9
16T	T	32	425	0.075	12.4	B	0.5	13
16R	R (Slp)	271	801	0.338	7.3	A	2.1	54
East: WB N Frontage Rd								
1L	L	588	768	0.766	22.1	C	10.6	276
6T	T	488	707	0.690	18.2	B	8.2	213
6R	R	35	51	0.686	14.5	B	8.2	213
North: SB Chamonix Dr								
7L	L	18	65	0.277	20.4	C	1.7	43
4T	T	55	199	0.276	13.4	B	1.7	43
4R	R	2	7	0.286	14.4	B	1.7	43
ALL VEHICLES:		2996		0.860	11.2	B	18.7	483

Level of Service calculations are based on average control delay including geometric delay (HCM criteria), independent of the current delay definition used. For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

- < Reduced capacity due to a short lane effect
- * Maximum v/c ratio, or critical green periods
- " Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)
- E "Excess" flow from the short lane of an adjacent movement added to normal flow



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SIDRA
INTERSECTION

Output Tables

S Frontage Rd & Chamonix Dr PM Ex

snow

Run Information

* Basic Parameters:
 Intersection Type: Roundabout
 Driving on the right-hand side of the road
 Input data specified in US units
 Model Defaults: US HCM (US)
 Peak Flow Period (for performance): 15 minutes
 Unit time (for volumes): 60 minutes.
 Delay definition: Control delay
 Geometric delay included
 HCM Delay Model option selected
 HCM Queue Model option selected
 Level of Service based on: Delay (HCM method)
 Queue definition: Back of queue, 95th Percentile

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

S Frontage Rd Chamonix Dr PM Ex
 snow
 Intersection ID: .
 Roundabout

From Approach	To Approach	Mov ID	Turn	Flow Rate LV	Flow Rate HV	Flow Scale	Peak Flow Factor
West: EB S Frontage Rd							
	West	5L	Left	0	0	1.00	0.83
	South	2R	Right	6	0	1.00	0.83
	East	2T	Thru	65	1	1.00	0.83
	NorthEast	2T	Thru	12	0	1.00	0.83
	North	5L	Left	118	2	1.00	0.83
South: NB Chamonix Dr							
	West	3L	Left	6	0	1.00	0.83
	South	3L	Left	0	0	1.00	0.83
	East	8R	Right	12	0	1.00	0.83
	NorthEast	8T	Thru	6	0	1.00	0.83
	North	8T	Thru	12	0	1.00	0.83
East: WB S Frontage Rd							
	West	6T	Thru	41	1	1.00	0.83
	South	1L	Left	6	0	1.00	0.83
	NorthEast	6R	Right	0	0	1.00	0.83

North	6R	Right	715	38	1.00	0.83

North: SB Chamonix Dr						
West	4R	Right	218	4	1.00	0.83
South	4T	Thru	12	0	1.00	0.83
East	7L	Left	292	15	1.00	0.83
NorthEast	7L	Left	148	3	1.00	0.83
North	7L	Left	0	0	1.00	0.83

NorthWest: EB I-70 Off Ramps						
West	12R	Right	6	0	1.00	0.83
South	12T	Thru	6	0	1.00	0.83
East	12T	Thru	230	5	1.00	0.83
NorthEast	15L	Left	6	0	1.00	0.83
North	15L	Left	455	9	1.00	0.83

Unit Time for Volumes = 60 minutes						
Peak Flow Period = 15 minutes						
Flow Rates include effects of Flow Scale and Peak Flow Factor						

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

S Frontage Rd Chamonix Dr PM Ex
 snow
 Intersection ID: .
 Roundabout

Mov ID	Left		Through		Right	
	Total	%HV	Total	%HV	Total	%HV

Demand flows in veh/hour as used by the program						
West: EB S Frontage Rd						
5L L	120	1.7	0	0.0	0	0.0
2T T	0	0.0	79	2.5	0	0.0
2R R	0	0.0	0	0.0	7	14.3

South: NB Chamonix Dr						
3L L	7	14.3	0	0.0	0	0.0
8T T	0	0.0	19	5.3	0	0.0
8R R	0	0.0	0	0.0	13	7.7

East: WB S Frontage Rd						
1L L	7	14.3	0	0.0	0	0.0
6T T	0	0.0	42	2.4	0	0.0
6R R	0	0.0	0	0.0	753	5.0

North: SB Chamonix Dr						
7L L	457	3.9	0	0.0	0	0.0
4T T	0	0.0	13	7.7	0	0.0
4R R	0	0.0	0	0.0	222	1.8

NorthWest: EB I-70 Off Ramps						
15L L	469	1.9	0	0.0	0	0.0
12T T	0	0.0	241	2.1	0	0.0
12R R	0	0.0	0	0.0	7	14.3

Unit Time for Volumes = 60 minutes						
Peak Flow Period = 15 minutes						
Flow Rates include effects of Flow Scale and Peak Flow Factor						

Table S.2 - Movement Capacity Parameters

S Frontage Rd Chamonix Dr PM Ex
 snow
 Intersection ID: .
 Roundabout

Mov ID	Demand		Opposing Movement		Adjust. Flow	Total Cap.	Prac. Deg. xp	Prac. Spare Cap.	Lane Util (%)	Deg. Satn x
	(veh/h)	HV (%)	Flow (veh/h)	HV (%)	(pcu/h)	(veh /h)	Satn	(%)	(%)	
West: EB S Frontage Rd										
5L L	120	1.7	1187	2.8	1188	243	0.85	72	100	0.494
2T T	79	2.5	1187	2.8	1188	160	0.85	72	100	0.494
2R R	7	14.3	1187	2.8	1188	14	0.85	70	100	0.500
South: NB Chamonix Dr										
3L L	7	14.3	1361	2.7	1363	61	0.85	641	100	0.115
8T T	19	5.3	1361	2.7	1363	165	0.85	638	100	0.115
8R R	13	7.7	1361	2.7	1363	113	0.85	639	100	0.115
East: WB S Frontage Rd										
1L L	7	14.3	777	2.0	777	53	0.85	544	100	0.132
6T T	42	2.4	777	2.0	777	320	0.85	548	100	0.131
6R R	753	5.0	777	2.0	777	727	0.85	-18	100	1.036*
North: SB Chamonix Dr										
7L L	457	3.9	54	2.0	54	830	0.85	54	100	0.551
4T T	13	7.7	54	2.0	54	24	0.85	57	100	0.542
4R R	222	1.8	54	2.0	54	403	0.85	54	100	0.551
NorthWest: EB I-70 Off Ramps										
15L L	469	1.9	747	3.2	748	902	0.85	63	75	0.520
12T T	241	2.1	271	2.0	271	464	0.85	64	100	0.519
12R R	7	14.3	271	2.0	271	13	0.85	58	100	0.538

Table S.5 - Movement Performance

Mov ID	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (vehs)	Queue 95% Back (ft)	Perf. Index	Aver. Speed (mph)
West: EB S Frontage Rd									
5L L	0.67	0.81	20.2	0.83	1.05	3.6	93	4.02	19.8
2T T	0.31	0.37	14.0	0.83	1.00	3.6	93	2.41	21.0
2R R	0.03	0.03	14.2	0.83	1.00	3.6	93	0.21	20.8
South: NB Chamonix Dr									
3L L	0.04	0.05	19.4	0.79	0.92	0.7	18	0.23	20.0
8T T	0.06	0.08	12.3	0.79	0.84	0.7	18	0.55	21.4
8R R	0.05	0.06	13.3	0.79	0.75	0.7	18	0.37	21.0
East: WB S Frontage Rd									
1L L	0.03	0.04	15.8	0.65	0.88	0.7	17	0.21	21.0
6T T	0.10	0.12	8.8	0.65	0.74	0.7	17	1.09	22.7
6R R	9.53	11.44	45.6	1.00	2.38	30.7	798	42.39	14.1
North: SB Chamonix Dr									
7L L	1.27	1.52	10.0	0.30	0.59	5.5	142	11.49	22.7

4T T	0.01	0.01	2.6	0.30	0.30	5.5	142	0.26	24.6
4R R	0.22	0.26	3.5	0.30	0.36	5.5	142	4.61	24.2

NorthWest: EB I-70 Off Ramps									
15L L	1.99	2.38	15.2	0.71	0.92	4.6	117	13.83	21.4
12T T	0.81	0.97	12.0	0.65	0.76	4.6	117	6.48	22.0
12R R	0.02	0.02	8.0	0.65	0.66	4.6	117	0.17	22.9

Table S.6 - Intersection Performance

S Frontage Rd Chamonix Dr PM Ex
 snow
 Intersection ID: .
 Roundabout

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (ft)	Perf. Index	Aver. Speed (mph)

West: EB S Frontage Rd									
206	0.500	1.01	1.21	17.6	0.83	1.03	93	6.65	20.3

South: NB Chamonix Dr									
39	0.115	0.15	0.18	13.9	0.79	0.82	18	1.15	21.0

East: WB S Frontage Rd									
802	1.036	9.67	11.60	43.4	0.98	2.28	798	43.69	14.4

North: SB Chamonix Dr									
692	0.551	1.49	1.79	7.8	0.30	0.51	142	16.36	23.2

NorthWest: EB I-70 Off Ramps									
717	0.538	2.81	3.37	14.1	0.69	0.86	117	20.48	21.6

ALL VEHICLES:									
2456	1.036	15.12	18.15	22.2	0.69	1.24	798	88.33	18.9

INTERSECTION (persons):									
2947	1.036		18.15	22.2	0.69	1.24		88.33	18.9

Queue values in this table are 95% back of queue (feet).

Table S.7 - Lane Performance

S Frontage Rd Chamonix Dr PM Ex
 snow
 Intersection ID: .
 Roundabout

Lane No.	Dem Flow (veh/h)	Cap (veh/h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Queue 95% Back (vehs)	Queue (ft)	Lane Length (ft)

West: EB S Frontage Rd								
1 LTR	206	418	0.493	17.6	1.03	3.6	92.8	1600.0

```

-----
South: NB Chamonix Dr
1 LTR      39   338 0.115   13.9 0.82   0.7  18.3  1600.0
-----
East: WB S Frontage Rd
1 LT       49   373 0.131    9.8 0.76   0.7  16.9  1600.0
2 R       753   727 1.035   45.6 2.38  30.7  798.0  1600.0
-----
North: SB Chamonix Dr
1 LTR     692  1257 0.550    7.8 0.51   5.5 142.1  1600.0
-----
NorthWest: EB I-70 Off Ramps
1 L       274   702 0.390   15.6 0.91   3.0  75.9  1600.0
2 LTR    443   852 0.520   13.1 0.83   4.6 117.0  125.0T
-----
T Short lane due to specification of Turn Slot
    
```

Table S.8 - Lane Flow and Capacity Information

S Frontage Rd Chamonix Dr PM Ex
 snow
 Intersection ID: .
 Roundabout

```

-----
Lane      Dem Flow (veh/h)      Min Tot      Lane
No.      Lef Thru Rig Tot      Cap Cap Deg.   Util
              /h) /h)      x      %
-----
West: EB S Frontage Rd
1 LTR    120   79   7  206   150  418  0.493  100
-----
South: NB Chamonix Dr
1 LTR     7   19  13   39    39  338  0.115  100
-----
East: WB S Frontage Rd
1 LT      7   42   0  49    49  373  0.131  100
2 R      0   0  753  753   150  727  1.035  100
-----
North: SB Chamonix Dr
1 LTR   457  13  222  692   150 1257  0.550  100
-----
NorthWest: EB I-70 Off Ramps
1 L     274   0   0  274   150  702  0.390  75U
2 LTR  195  241   7  443   150  852  0.520  100
-----
    
```

U Lane under-utilisation specified by the "User"

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.15 - Capacity and Level of Service

S Frontage Rd Chamonix Dr PM Ex
 snow
 Intersection ID: .
 Roundabout

Mov ID	Mov Typ	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (ft)
West: EB S Frontage Rd								
5L	L	120	243	0.494	20.2	C	3.6	93
2T	T	79	160	0.494	14.0	B	3.6	93
2R	R	7	14	0.500	14.2	B	3.6	93
South: NB Chamonix Dr								
3L	L	7	61	0.115	19.4	B	0.7	18
8T	T	19	165	0.115	12.3	B	0.7	18
8R	R	13	113	0.115	13.3	B	0.7	18
East: WB S Frontage Rd								
1L	L	7	53	0.132	15.8	B	0.7	17
6T	T	42	320	0.131	8.8	A	0.7	17
6R	R	753	727	1.036*	45.6	D	30.7	798
North: SB Chamonix Dr								
7L	L	457	830	0.551	10.0	A	5.5	142
4T	T	13	24	0.542	2.6	A	5.5	142
4R	R	222	403	0.551	3.5	A	5.5	142
NorthWest: EB I-70 Off Ramps								
15L	L	469	902	0.520	15.2	B	4.6	117
12T	T (Slp)	241	464	0.519	12.0	B	4.6	117
12R	R (Slp)	7	13	0.538	8.0	A	4.6	117
ALL VEHICLES:		2456		1.036	22.2	C	30.7	798

Level of Service calculations are based on average control delay including geometric delay (HCM criteria), independent of the current delay definition used.

For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

* Maximum v/c ratio, or critical green periods

" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)



SIDRA SOLUTIONS

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Output Tables

N Frontage Rd & Vail Rd PM Ex

snow

Run Information

* Basic Parameters:
 Intersection Type: Roundabout
 Driving on the right-hand side of the road
 Input data specified in US units
 Model Defaults: US HCM (US)
 Peak Flow Period (for performance): 15 minutes
 Unit time (for volumes): 60 minutes.
 Delay definition: Control delay
 Geometric delay included
 HCM Delay Model option selected
 HCM Queue Model option selected
 Level of Service based on: Delay (HCM method)
 Queue definition: Back of queue, 95th Percentile

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

N Frontage Rd Vail Rd PM Ex
 snow
 Intersection ID: .
 Roundabout

From Approach	To Approach	Mov ID	Turn	Flow Rate		Flow Scale	Peak Flow Factor
				LV	HV		

South: NB Vail Rd							
	West	3L	Left	630	33	1.00	0.83
	South	3L	Left	0	0	1.00	0.83
	NorthEast	8T	Thru	6	0	1.00	0.83
	NorthWest	8T	Thru	458	24	1.00	0.83

East: WB I-70 Off Ramps							
	West	6T	Thru	6	0	1.00	0.83
	South	1L	Left	266	5	1.00	0.83
	NorthEast	6R	Right	6	0	1.00	0.83
	NorthWest	6T	Thru	89	2	1.00	0.83

NorthEast: WB Spraddle Creek							
	West	14T	Thru	6	0	1.00	0.83
	South	14T	Thru	6	0	1.00	0.83
	NorthWest	14R	Right	6	0	1.00	0.83

NorthWest: EB I-70 Off Ramps							

West	12R	Right	47	1	1.00	0.83
South	12T	Thru	275	14	1.00	0.83
NorthEast	15L	Left	6	0	1.00	0.83

 Unit Time for Volumes = 60 minutes
 Peak Flow Period = 15 minutes
 Flow Rates include effects of Flow Scale and Peak Flow Factor

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

N Frontage Rd Vail Rd PM Ex
 snow
 Intersection ID: .
 Roundabout

Mov ID	Left		Through		Right	
	Total	%HV	Total	%HV	Total	%HV

Demand flows in veh/hour as used by the program						
South: NB Vail Rd						
3L L	663	5.0	0	0.0	0	0.0
8T T	0	0.0	488	4.9	0	0.0

East: WB I-70 Off Ramps						
1L L	271	1.8	0	0.0	0	0.0
6T T	0	0.0	96	2.1	0	0.0
6R R	0	0.0	0	0.0	7	14.3

NorthEast: WB Spraddle Creek						
14T T	0	0.0	13	7.7	0	0.0
14R R	0	0.0	0	0.0	7	14.3

NorthWest: EB I-70 Off Ramps						
15L L	7	14.3	0	0.0	0	0.0
12T T	0	0.0	289	4.8	0	0.0
12R R	0	0.0	0	0.0	48	2.1

 Unit Time for Volumes = 60 minutes
 Peak Flow Period = 15 minutes
 Flow Rates include effects of Flow Scale and Peak Flow Factor

Table S.2 - Movement Capacity Parameters

N Frontage Rd Vail Rd PM Ex
 snow
 Intersection ID: .
 Roundabout

Mov ID	Demand Flow (veh/h)	HV (%)	Opposing Movement		Adjust. Flow (pcu/h)	Total Cap. (veh/h)	Prac. Deg. xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
			Flow (veh/h)	HV (%)						

 South: NB Vail Rd

3L L	663	5.0	6	2.0	6	864	0.85	11	100	0.767*
8T T	488	4.9	6	2.0	6	636	0.85	11	100	0.767*

East: WB I-70 Off Ramps										
1L L	271	1.8	1157	5.0	1161	433	0.85	36	100	0.626
6T T	96	2.1	1157	5.0	1161	269	0.85	138	57	0.357
6R R	7	14.3	1157	5.0	1161	20	0.85	143	57	0.350

NorthEast: WB Spraddl Creek										
14T T	13	7.7	1512	4.3	1516	306	0.85	1901	100	0.042
14R R	7	14.3	1512	4.3	1516	165	0.85	1904	100	0.042

NorthWest: EB I-70 Off Ramps										
15L L	7	14.3	952	4.1	954	13	0.85	58	100	0.538
12T T	289	4.8	952	4.1	954	553	0.85	63	32	0.523
12R R	48	2.1	952	4.1	954	287	0.85	408	32	0.167

Table S.5 - Movement Performance

Mov ID	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue 95% Back (vehs)	Queue (ft)	Perf. Index	Aver. Speed (mph)

South: NB Vail Rd									
3L L	1.68	2.01	9.1	0.15	0.60	14.7	383	17.33	22.8
8T T	1.08	1.30	8.0	0.15	0.57	14.7	383	12.41	23.0

East: WB I-70 Off Ramps									
1L L	2.45	2.94	32.5	0.96	1.30	7.1	180	11.08	16.7
6T T	0.58	0.70	21.8	0.85	0.97	2.5	63	3.28	18.6
6R R	0.05	0.06	23.6	0.85	0.99	2.5	63	0.24	18.1

NorthEast: WB Spraddl Creek									
14T T	0.10	0.12	26.7	0.89	0.86	0.3	8	0.48	17.6
14R R	0.05	0.06	26.8	0.89	0.87	0.3	8	0.26	17.4

NorthWest: EB I-70 Off Ramps									
15L L	0.04	0.04	18.8	0.84	1.07	4.6	120	0.23	20.0
12T T	0.99	1.19	12.3	0.84	1.02	4.6	120	8.47	21.4
12R R	0.22	0.26	16.3	0.72	0.87	0.9	22	1.45	20.0

Table S.6 - Intersection Performance

N Frontage Rd Vail Rd PM Ex
 snow
 Intersection ID: .
 Roundabout

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (ft)	Perf. Index	Aver. Speed (mph)

South: NB Vail Rd									
1151	0.767	2.76	3.31	8.6	0.15	0.59	383	29.74	22.9

East: WB I-70 Off Ramps									
374	0.626	3.08	3.69	29.6	0.93	1.21	180	14.60	17.2

NorthEast: WB Spraddle Creek									
20	0.042	0.15	0.18	26.7	0.89	0.87	8	0.74	17.5

NorthWest: EB I-70 Off Ramps									
344	0.538	1.24	1.49	13.0	0.82	1.00	120	10.14	21.2

ALL VEHICLES:									
1889	0.767	7.22	8.67	13.8	0.43	0.79	383	55.22	21.1

INTERSECTION (persons):									
2267	0.767		8.67	13.8	0.43	0.79		55.22	21.1

Queue values in this table are 95% back of queue (feet).

Table S.7 - Lane Performance

N Frontage Rd Vail Rd PM Ex
 snow
 Intersection ID: .
 Roundabout

Lane No.	Dem			Aver. Delay (sec)	Eff. Stop Rate	Q u e u e		Lane Length (ft)
	Flow (veh /h)	Cap (veh /h)	Deg. Satn x			95% Back (vehs)	(ft)	

South: NB Vail Rd								
1 LT	1151	1499	0.768	8.6	0.59	14.7	382.8	1600.0

East: WB I-70 Off Ramps								
1 L	271	433	0.626	32.5	1.30	7.1	180.3	1600.0
2 TR	103	289	0.356	22.0	0.97	2.5	63.1	1600.0

NorthEast: WB Spraddle Creek								
1 T	10	240	0.043	26.5	0.86	0.3	8.0	80.0T
2 TR	10	230	0.043	26.9	0.87	0.3	8.1	1600.0

NorthWest: EB I-70 Off Ramps								
1 LT	296	566	0.523	12.5	1.02	4.6*	120.1	100.0T
2 R	48	287	0.167	16.3	0.87	0.9	22.5	1600.0

* Queue length exceeds short lane length due to specification of a percentile queue in the Tools-Options (Model tab). For calculation of this statistic, you may specify the lane with full length.
 T Short lane due to specification of Turn Slot

Table S.8 - Lane Flow and Capacity Information

N Frontage Rd Vail Rd PM Ex
 snow
 Intersection ID: .
 Roundabout

 Min Tot

Lane No.	Dem Flow (veh/h)			Cap (veh/h)	Cap (veh/h)	Deg. Satn x	Lane Util %
	Lef	Thru	Rig Tot				

South: NB Vail Rd							
1 LT	663	488	0 1151	150	1499	0.768	100

East: WB I-70 Off Ramps							
1 L	271	0	0 271	150	433	0.626	100
2 TR	0	96	7 103	103	289	0.356	57P

NorthEast: WB Spraddles Creek							
1 T	0	10	0 10	10	240	0.043	100
2 TR	0	3	7 10	10	230	0.043	100

NorthWest: EB I-70 Off Ramps							
1 LT	7	289	0 296	150	566	0.523	100
2 R	0	0	48 48	48	287	0.167	32P

P Lane under-utilisation found by the "Program". This includes cases where the value of lane under-utilisation due to downstream effects has been modified by the program during lane flow calculations (e.g. a de facto exclusive lane has been found).

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.15 - Capacity and Level of Service

N Frontage Rd Vail Rd PM Ex
 snow
 Intersection ID: .
 Roundabout

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (ft)

South: NB Vail Rd								
3L	L	663	864	0.767*	9.1	A	14.7	383
8T	T	488	636	0.767*	8.0	A	14.7	383

East: WB I-70 Off Ramps								
1L	L	271	433	0.626	32.5	C	7.1	180
6T	T	96	269	0.357	21.8	C	2.5	63
6R	R	7	20	0.350	23.6	C	2.5	63

NorthEast: WB Spraddles Creek								
14T	T	13	306	0.042	26.7	C	0.3	8
14R	R	7	165	0.042	26.8	C	0.3	8

NorthWest: EB I-70 Off Ramps								
15L	L	7	13	0.538	18.8	B	4.6	120
12T	T	289	553	0.523	12.3	B	4.6	120
12R	R	48	287	0.167	16.3	B	0.9	22

ALL VEHICLES:		1889		0.767	13.8	B	14.7	383

Level of Service calculations are based on average control delay including geometric delay (HCM criteria), independent of the current delay definition used.

For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

* Maximum v/c ratio, or critical green periods

" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)



Site: NF&VR_px 0.68
L:\05168\cap analysis\px\0.85\PM Existing.aap
Processed Mar 12, 2009 09:11:06AM

A0129, Felsburg Holt & Ullevig, Large Office
Produced by SIDRA Intersection 3.2.0.1455
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Output Tables

S Frontage Rd & Vail Rd PM Ex

snow

Run Information

```
* Basic Parameters:
Intersection Type: Roundabout
Driving on the right-hand side of the road
Input data specified in US units
Model Defaults: US HCM (US)
Peak Flow Period (for performance): 15 minutes
Unit time (for volumes): 60 minutes.
Delay definition: Control delay
                  Geometric delay included
HCM Delay Model option selected
HCM Queue Model option selected
Level of Service based on: Delay (HCM method)
Queue definition: Back of queue, 95th Percentile
```

Geometric delay is less than 2 seconds for some movements. The negotiation speed may be too high or the approach and exit speeds may be too low for given geometric design (e.g. for a large roundabout). Check Tables D.0, D.1 and D.4 for geometric delay data including negotiation speeds. If necessary, specify appropriate values of approach and exit speeds, negotiation radius or negotiation speed data in the Definitions & Path Data dialog.

Table B.1 - Movement Definitions and Flow Rates (Origin-Destination)

```
S Frontage Rd  Vail Rd PM Ex
snow
Intersection ID: .
Roundabout
```

From Approach	To Approach	Mov ID	Turn	Flow Rate		Flow Scale	Peak Flow Factor
				LV	HV		
West: EB S Frontage Rd							
	South	2R	Right	153	3	1.00	0.83
	East	2T	Thru	458	24	1.00	0.83
	NorthEast	2T	Thru	277	6	1.00	0.83
	North	5L	Left	57	3	1.00	0.83
South: NB Vail Rd							
	West	3L	Left	12	0	1.00	0.83
	East	8R	Right	71	1	1.00	0.83
	NorthEast	8T	Thru	65	1	1.00	0.83

North	8T	Thru	177	4	1.00	0.83

East: WB S Frontage Rd						
West	6T	Thru	309	16	1.00	0.83
South	1L	Left	59	1	1.00	0.83
NorthEast	6R	Right	224	5	1.00	0.83
North	6R	Right	858	45	1.00	0.83

North: SB Vail Rd						
West	4R	Right	229	12	1.00	0.83
South	4T	Thru	153	3	1.00	0.83
East	7L	Left	103	5	1.00	0.83
NorthEast	7L	Left	47	1	1.00	0.83

NorthWest: EB I-70 Off Ramps						
West	12R	Right	142	3	1.00	0.83
South	12T	Thru	112	2	1.00	0.83
East	12T	Thru	177	4	1.00	0.83
NorthEast	15L	Left	6	0	1.00	0.83
North	15L	Left	18	0	1.00	0.83

Unit Time for Volumes = 60 minutes
 Peak Flow Period = 15 minutes
 Flow Rates include effects of Flow Scale and Peak Flow Factor

Table B.2B - Flow Rates (Total Vehicles and Percent Heavy)

S Frontage Rd Vail Rd PM Ex
 snow
 Intersection ID: .
 Roundabout

Mov ID	Left		Through		Right	
	Total	%HV	Total	%HV	Total	%HV

Demand flows in veh/hour as used by the program						
West: EB S Frontage Rd						
5L L	60	5.0	0	0.0	0	0.0
2T T	0	0.0	765	3.9	0	0.0
2R R	0	0.0	0	0.0	156	1.9

South: NB Vail Rd						
3L L	13	7.7	0	0.0	0	0.0
8T T	0	0.0	247	2.0	0	0.0
8R R	0	0.0	0	0.0	72	1.4

East: WB S Frontage Rd						
1L L	60	1.7	0	0.0	0	0.0
6T T	0	0.0	325	4.9	0	0.0
6R R	0	0.0	0	0.0	1133	4.4

North: SB Vail Rd						
7L L	156	3.8	0	0.0	0	0.0
4T T	0	0.0	156	1.9	0	0.0
4R R	0	0.0	0	0.0	241	5.0

NorthWest: EB I-70 Off Ramps						
15L L	25	4.0	0	0.0	0	0.0
12T T	0	0.0	295	2.0	0	0.0
12R R	0	0.0	0	0.0	145	2.1

Unit Time for Volumes = 60 minutes
 Peak Flow Period = 15 minutes
 Flow Rates include effects of Flow Scale and Peak Flow Factor

Table S.2 - Movement Capacity Parameters

S Frontage Rd Vail Rd PM Ex
 snow
 Intersection ID: .
 Roundabout

Mov ID	Demand		Opposing Movement		Adjust. Flow (pcu/h)	Total Cap. (veh/h)	Prac. Deg. xp	Prac. Spare Cap. (%)	Lane Util (%)	Deg. Satn x
	(veh/h)	HV (%)	Flow (veh/h)	HV (%)						
West: EB S Frontage Rd										
5L L	60	5.0	693	2.5	693	185<	0.85	162	63	0.324
2T T	765	3.9	693	2.5	693	1471<	0.85	63	63	0.520
2R R	156	1.9	693	2.5	693	752	0.85	310	100	0.207
South: NB Vail Rd										
3L L	13	7.7	1187	3.6	1189	46	0.85	201	100	0.283
8T T	247	2.0	1187	3.6	1189	876	0.85	201	100	0.282
8R R	72	1.4	1187	3.6	1189	255	0.85	201	100	0.282
East: WB S Frontage Rd										
1L L	60	1.7	675	2.3	675	496	0.85	603	33	0.121
6T T	325	4.9	675	2.3	675	891	0.85	133	33	0.365
6R R	1133	4.4	0			1567	0.85	18	100	0.723*
North: SB Vail Rd										
7L L	156	3.8	398	4.5	399	500	0.85	172	67	0.312
4T T	156	1.9	398	4.5	399	500	0.85	172	67	0.312
4R R	241	5.0	398	4.5	399	520<	0.85	83	100	0.463
NorthWest: EB I-70 Off Ramps										
15L L	25	4.0	952	4.1	954	99	0.85	237	75	0.253
12T T	295	2.0	952	4.1	954	875	0.85	152	75	0.337
12R R	145	2.1	578	4.9	580	430	0.85	152	100	0.337

Table S.5 - Movement Performance

Mov ID	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue 95% Back (vehs)	Queue (ft)	Perf. Index	Aver. Speed
									(mph)
West: EB S Frontage Rd									
5L L	0.21	0.25	12.3	0.64	0.82	1.9	48	1.64	22.4
2T T	1.35	1.62	6.4	0.70	0.71	4.7	122	18.45	23.5
2R R	0.25	0.30	5.8	0.61	0.67	1.2	32	3.59	23.6
South: NB Vail Rd									
3L L	0.05	0.06	14.6	0.76	0.91	1.8	45	0.38	21.7
8T T	0.45	0.54	6.5	0.76	0.77	1.9	47	6.15	23.5
8R R	0.14	0.17	7.0	0.77	0.81	1.9	47	1.80	23.3
East: WB S Frontage Rd									

1L L	0.23	0.27	13.7	0.59	0.84	0.6	15	1.70	22.0
6T T	0.38	0.45	4.2	0.62	0.50	2.3	59	7.00	24.0
6R R	0.34	0.41	1.1		0.11	47.2#		16.16	24.5

North: SB Vail Rd									
7L L	0.49	0.59	11.3	0.54	0.74	2.1	54	4.12	22.5
4T T	0.14	0.16	3.1	0.54	0.37	2.1	54	3.19	24.2
4R R	0.29	0.35	4.3	0.53	0.50	1.7	44	5.16	23.9

NorthWest: EB I-70 Off Ramps									
15L L	0.09	0.11	13.4	0.65	0.87	1.5	38	0.70	22.2
12T T	0.63	0.76	7.7	0.65	0.74	2.2	57	7.27	23.3
12R R	0.26	0.31	6.4	0.66	0.70	2.2	57	3.41	23.4

# Largest density (passenger cars per km or mile) for any lane									

Table S.6 - Intersection Performance

S Frontage Rd Vail Rd PM Ex
 snow
 Intersection ID: .
 Roundabout

Total Flow (veh/h)	Deg. Satn x	Total Delay (veh-h/h)	Total Delay (pers-h/h)	Aver. Delay (sec)	Prop. Queued	Eff. Stop Rate	Longest Queue (ft)	Perf. Index	Aver. Speed (mph)

West: EB S Frontage Rd									
981	0.520	1.81	2.17	6.6	0.68	0.71	122	23.68	23.5

South: NB Vail Rd									
332	0.283	0.64	0.77	6.9	0.76	0.79	47	8.33	23.4

East: WB S Frontage Rd									
1518	0.723	0.95	1.14	2.3	0.16	0.22	759	24.85	24.2

North: SB Vail Rd									
553	0.463	0.91	1.09	5.9	0.53	0.53	54	12.47	23.6

NorthWest: EB I-70 Off Ramps									
465	0.337	0.98	1.18	7.6	0.65	0.74	57	11.38	23.3

ALL VEHICLES:									
3849	0.723	5.29	6.35	5.0	0.46	0.50	122	80.71	23.7

INTERSECTION (persons):									
4619	0.723		6.35	5.0	0.46	0.50		80.71	23.7

Queue values in this table are 95% back of queue (feet).									

Table S.7 - Lane Performance

S Frontage Rd Vail Rd PM Ex
 snow
 Intersection ID: .
 Roundabout

Lane No.	Dem Flow (veh/h)	Cap (veh/h)	Deg. Satn x	Aver. Delay (sec)	Eff. Stop Rate	Q u e u e		Lane Length (ft)
						95% Back (vehs)	(ft)	
West: EB S Frontage Rd								
1 LT	240	737	0.325	7.7	0.69	1.9	48.2	80.0T
2 T	585	1125	0.520	6.4	0.73	4.7	121.9	1600.0
3 R	156	752	0.207	5.8	0.67	1.2	31.6	1600.0
South: NB Vail Rd								
1 LT	153	543	0.282	7.5	0.81	1.8	45.1	1600.0
2 TR	179	635	0.282	6.5	0.77	1.9	47.3	80.0T
East: WB S Frontage Rd								
1 L	60	496	0.121	13.7	0.84	0.6	15.0	130.0T
2 T	325	891	0.365	4.2	0.50	2.3	59.4	1600.0
3 R	1133	1567	0.723	1.1	0.11	47.2#		1600.0
North: SB Vail Rd								
1 LT	312	1001	0.312	7.2	0.55	2.1	53.7	1600.0
2 R	241	520	0.464	4.3	0.50	1.7*	44.4	40.0T
NorthWest: EB I-70 Off Ramps								
1 LT	201	793	0.253	8.3	0.75	1.5	37.7	1600.0
2 TR	264	784	0.337	7.1	0.73	2.2	56.6	1600.0

Density (passenger cars per km or mile)
 * Queue length exceeds short lane length due to specification of a percentile queue in the Tools-Options (Model tab). For calculation of this statistic, you may specify the lane with full length.
 T Short lane due to specification of Turn Slot

Table S.8 - Lane Flow and Capacity Information

S Frontage Rd Vail Rd PM Ex
 snow
 Intersection ID: .
 Roundabout

Lane No.	Dem Flow (veh/h)			Min Tot		Deg. Satn x	Lane Util %
	Lef	Thru	Rig	Cap (veh/h)	Cap (veh/h)		
West: EB S Frontage Rd							
1 LT	60	180	0	240	150	737<	0.325 63P
2 T	0	585	0	585	150	1125	0.520 100
3 R	0	0	156	156	150	752	0.207 100
South: NB Vail Rd							
1 LT	13	140	0	153	150	543	0.282 100
2 TR	0	107	72	179	150	635	0.282 100
East: WB S Frontage Rd							
1 L	60	0	0	60	496	0.121	33P
2 T	0	325	0	325	150	891	0.365 100
3 R	0	0	1133	1133	1133	1567	0.723 100
North: SB Vail Rd							
1 LT	156	156	0	312	150	1001	0.312 67P
2 R	0	0	241	241	150	520	0.464 100
NorthWest: EB I-70 Off Ramps							
1 LT	25	176	0	201	150	793	0.253 75U
2 TR	0	119	145	264	150	784	0.337 100

- < Reduced capacity flow due to a short lane effect
- P Lane under-utilisation found by the "Program". This includes cases where the value of lane under-utilisation due to downstream effects has been modified by the program during lane flow calculations (e.g. a de facto exclusive lane has been found).
- U Lane under-utilisation specified by the "User"

The capacity value for priority and continuous movements is obtained by adjusting the basic saturation flow for heavy vehicle and turning vehicle effects. Saturation flow scale applies if specified.

Table S.15 - Capacity and Level of Service

S Frontage Rd Vail Rd PM Ex
 snow
 Intersection ID: .
 Roundabout

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (ft)
West: EB S Frontage Rd								
5L	L	60	185<	0.324	12.3	B	1.9	48
2T	T	765	1471<	0.520	6.4	A	4.7	122
2R	R	156	752	0.207	5.8	A	1.2	32
South: NB Vail Rd								
3L	L	13	46	0.283	14.6	B	1.8	45
8T	T	247	876	0.282	6.5	A	1.9	47
8R	R	72	255	0.282	7.0	A	1.9	47
East: WB S Frontage Rd								
1L	L	60	496	0.121	13.7	B	0.6	15
6T	T	325	891	0.365	4.2	A	2.3	59
6R	R (Con)	1133	1567	0.723*	1.1	F#	47.2#	
North: SB Vail Rd								
7L	L	156	500	0.312	11.3	B	2.1	54
4T	T	156	500	0.312	3.1	A	2.1	54
4R	R	241	520<	0.463	4.3	A	1.7	44
NorthWest: EB I-70 Off Ramps								
15L	L	25	99	0.253	13.4	B	1.5	38
12T	T	295	875	0.337	7.7	A	2.2	57
12R	R (Slp)	145	430	0.337	6.4	A	2.2	57
ALL VEHICLES:		3849		0.723	5.0	A	4.7	122

Level of Service calculations are based on average control delay including geometric delay (HCM criteria), independent of the current delay definition used.

For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

- # Continuous movements: Level Of Service based on density, Density (passenger cars per km or mile) instead of queue.
- < Reduced capacity due to a short lane effect
- * Maximum v/c ratio, or critical green periods
- " Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)



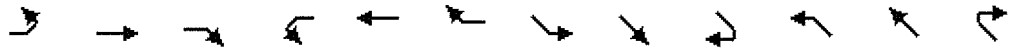
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HCM Unsignalized Intersection Capacity Analysis
 3: S Frontage Rd & Forest Rd

05-168 Vail
 3/16/2009



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	10	390	10	15	575	15	25	5	5	15	5	15
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	424	11	16	625	16	27	5	5	16	5	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	641			435			1130	1122	633	1120	1120	424
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	641			435			1130	1122	633	1120	1120	424
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			84	97	99	91	97	97
cM capacity (veh/h)	943			1125			169	201	480	175	201	630

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	SE 1	NW 1
Volume Total	11	424	11	658	38	38
Volume Left	11	0	0	16	27	16
Volume Right	0	0	11	16	5	16
cSH	943	1700	1700	1125	191	260
Volume to Capacity	0.01	0.25	0.01	0.01	0.20	0.15
Queue Length 95th (ft)	1	0	0	1	18	13
Control Delay (s)	8.9	0.0	0.0	0.4	28.5	21.2
Lane LOS	A			A	D	C
Approach Delay (s)	0.2			0.4	28.5	21.2
Approach LOS					D	C

Intersection Summary

Average Delay	1.9
Intersection Capacity Utilization	53.3%
Analysis Period (min)	15
ICU Level of Service	A

HCM Unsignalized Intersection Capacity Analysis
 4: W Lionshead Cir W & S Frontage Rd

05-168 Vail
 3/16/2009












Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	←	←	↑	→	←	←
Volume (veh/h)	110	30	325	100	25	475
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	120	33	353	109	27	516
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	978	408			462	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	978	408			462	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	56	95			98	
cM capacity (veh/h)	271	644			1099	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	152	462	543
Volume Left	120	0	27
Volume Right	33	109	0
cSH	309	1700	1099
Volume to Capacity	0.49	0.27	0.02
Queue Length 95th (ft)	64	0	2
Control Delay (s)	27.4	0.0	0.7
Lane LOS	D		A
Approach Delay (s)	27.4	0.0	0.7
Approach LOS	D		

Intersection Summary			
Average Delay		3.9	
Intersection Capacity Utilization		60.0%	ICU Level of Service
Analysis Period (min)		15	B

HCM Unsignalized Intersection Capacity Analysis
 5: S Frontage Rd & W Lionshead Cir E

05-168 Vail
 3/16/2009

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	280	70	90	435	65	160
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	304	76	98	473	71	174
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			380		1011	342
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			380		1011	342
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			92		71	75
cM capacity (veh/h)			1178		243	700

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	380	571	245
Volume Left	0	98	71
Volume Right	76	0	174
cSH	1700	1178	454
Volume to Capacity	0.22	0.08	0.54
Queue Length 95th (ft)	0	7	78
Control Delay (s)	0.0	2.2	21.8
Lane LOS		A	C
Approach Delay (s)	0.0	2.2	21.8
Approach LOS			C

Intersection Summary			
Average Delay		5.5	
Intersection Capacity Utilization		70.3%	ICU Level of Service
Analysis Period (min)		15	C

HCM Unsignalized Intersection Capacity Analysis
 6: S Frontage Rd & E Lionshead Cir

05-168 Vail
 3/16/2009

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	
Volume (veh/h)	370	80	90	425	100	95
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	402	87	98	462	109	103
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			489		1103	446
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			489		1103	446
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			91		49	83
cM capacity (veh/h)			1074		212	613

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	489	560	212
Volume Left	0	98	109
Volume Right	87	0	103
cSH	1700	1074	312
Volume to Capacity	0.29	0.09	0.68
Queue Length 95th (ft)	0	7	116
Control Delay (s)	0.0	2.4	37.9
Lane LOS		A	E
Approach Delay (s)	0.0	2.4	37.9
Approach LOS			E

Intersection Summary			
Average Delay		7.4	
Intersection Capacity Utilization		73.0%	ICU Level of Service
Analysis Period (min)		15	D

HCM Unsignalized Intersection Capacity Analysis
 7: S Frontage Rd & Lionshead Parking

05-168 Vail
 3/16/2009

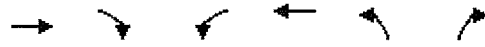
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Volume (veh/h)	405	65	85	350	165	355
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	440	71	92	380	179	386
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			511		1005	440
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			511		1005	440
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			91		27	37
cM capacity (veh/h)			1054		244	617

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	440	71	473	565
Volume Left	0	0	92	179
Volume Right	0	71	0	386
cSH	1700	1700	1054	416
Volume to Capacity	0.26	0.04	0.09	1.36
Queue Length 95th (ft)	0	0	7	667
Control Delay (s)	0.0	0.0	2.5	203.7
Lane LOS			A	F
Approach Delay (s)	0.0		2.5	203.7
Approach LOS				F

Intersection Summary				
Average Delay			75.1	
Intersection Capacity Utilization		85.4%		ICU Level of Service E
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
 10: S Frontage Rd & Village Center Rd

05-168 Vail
 3/16/2009



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Volume (veh/h)	600	70	50	1100	75	70
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	652	76	54	1196	82	76
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage (veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			652		1359	326
vC1, stage 1 conf vol					652	
vC2, stage 2 conf vol					707	
vCu, unblocked vol			652		1359	326
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			94		76	89
cM capacity (veh/h)			930		335	670

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	326	326	76	54	598	598	82	76
Volume Left	0	0	0	54	0	0	82	0
Volume Right	0	0	76	0	0	0	0	76
cSH	1700	1700	1700	930	1700	1700	335	670
Volume to Capacity	0.19	0.19	0.04	0.06	0.35	0.35	0.24	0.11
Queue Length 95th (ft)	0	0	0	5	0	0	23	10
Control Delay (s)	0.0	0.0	0.0	9.1	0.0	0.0	19.2	11.1
Lane LOS				A			C	B
Approach Delay (s)	0.0			0.4			15.3	
Approach LOS							C	

Intersection Summary								
Average Delay			1.4					
Intersection Capacity Utilization			41.2%		ICU Level of Service			A
Analysis Period (min)			15					

HCM Unsignalized Intersection Capacity Analysis
 11: S Frontage Rd & Vail Village Parking (Lower)

05-168 Vail
 3/16/2009



















	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↙	↑	↖↗	↗↖
Volume (veh/h)	350	260	50	650	400	100
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	380	283	54	707	435	109
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage (veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			663		1196	190
vC1, stage 1 conf vol					380	
vC2, stage 2 conf vol					815	
vCu, unblocked vol			663		1196	190
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			94		0	87
cM capacity (veh/h)			922		342	819

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4
Volume Total	190	190	283	54	707	217	217	54	54
Volume Left	0	0	0	54	0	217	217	0	0
Volume Right	0	0	283	0	0	0	0	54	54
cSH	1700	1700	1700	922	1700	342	342	819	819
Volume to Capacity	0.11	0.11	0.17	0.06	0.42	0.64	0.64	0.07	0.07
Queue Length 95th (ft)	0	0	0	5	0	104	104	5	5
Control Delay (s)	0.0	0.0	0.0	9.2	0.0	32.2	32.2	9.7	9.7
Lane LOS				A		D	D	A	A
Approach Delay (s)	0.0			0.7		27.7			
Approach LOS						D			

Intersection Summary										
Average Delay			7.9							
Intersection Capacity Utilization			52.3%		ICU Level of Service				A	
Analysis Period (min)			15							

HCM Unsignalized Intersection Capacity Analysis
 12: S Frontage Rd & Vail Valley Rd W

05-168 Vail
 3/16/2009

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (veh/h)	0	161	248	73	185	0	0	420	62	0	0	0	
Sign Control		Stop			Stop			Free			Free		
Grade		0%			0%			0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	0	175	270	79	201	0	0	457	67	0	0	0	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type								None			None		
Median storage (veh)													
Upstream signal (ft)													
pX, platoon unblocked													
vC, conflicting volume	591	524	0	578	490	490	0			524			
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	591	524	0	578	490	490	0			524			
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1			
tC, 2 stage (s)													
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2			
p0 queue free %	100	62	75	65	58	100	100			100			
cM capacity (veh/h)	281	458	1085	226	479	578	1623			1043			
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1							
Volume Total	175	270	79	201	524	0							
Volume Left	0	0	79	0	0	0							
Volume Right	0	270	0	0	67	0							
cSH	458	1085	226	479	1700	1700							
Volume to Capacity	0.38	0.25	0.35	0.42	0.31	0.00							
Queue Length 95th (ft)	44	25	38	51	0	0							
Control Delay (s)	17.6	9.4	29.4	17.9	0.0	0.0							
Lane LOS	C	A	D	C									
Approach Delay (s)	12.6		21.1		0.0	0.0							
Approach LOS	B		C										
Intersection Summary													
Average Delay			9.2										
Intersection Capacity Utilization			48.4%		ICU Level of Service						A		
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis
 13: S Frontage Rd & Ford Park

05-168 Vail
 3/16/2009




















	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↘			↖	↗	
Volume (veh/h)	210	25	5	275	75	15
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	228	27	5	299	82	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			255		552	242
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			255		552	242
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		83	98
cM capacity (veh/h)			1310		493	797

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	255	304	98
Volume Left	0	5	82
Volume Right	27	0	16
cSH	1700	1310	526
Volume to Capacity	0.15	0.00	0.19
Queue Length 95th (ft)	0	0	17
Control Delay (s)	0.0	0.2	13.4
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	13.4
Approach LOS			B

Intersection Summary			
Average Delay		2.1	
Intersection Capacity Utilization		30.2%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis
 14: S Frontage Rd & Vail Valley Rd E

05-168 Vail
 3/16/2009

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	100	125	35	175	20	75	5	30	20	5	25
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	109	136	38	190	22	82	5	33	22	5	27
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	212			245			448	429	109	454	554	201
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	212			245			448	429	109	454	554	201
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			97			83	99	97	95	99	97
cM capacity (veh/h)	1358			1322			483	497	945	479	422	840
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1						
Volume Total	125	136	250	87	33	54						
Volume Left	16	0	38	82	0	22						
Volume Right	0	136	22	0	33	27						
cSH	1358	1700	1322	484	945	600						
Volume to Capacity	0.01	0.08	0.03	0.18	0.03	0.09						
Queue Length 95th (ft)	1	0	2	16	3	7						
Control Delay (s)	1.1	0.0	1.4	14.1	8.9	11.6						
Lane LOS	A		A	B	A	B						
Approach Delay (s)	0.5		1.4	12.7		11.6						
Approach LOS				B		B						
Intersection Summary												
Average Delay			3.8									
Intersection Capacity Utilization			35.3%	ICU Level of Service		A						
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 15: S Frontage Rd & Westhaven Dr

05-168 Vail
 3/16/2009












Movement	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	375	50	45	55	40	615
Sign Control	Free		Stop		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	408	54	49	60	43	668
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL				TWLTL	
Median storage (veh)	2				2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1163	408	462	
vC1, stage 1 conf vol			408			
vC2, stage 2 conf vol			755			
vCu, unblocked vol			1163	408	462	
tC, single (s)			6.4	6.2	4.1	
tC, 2 stage (s)			5.4			
tF (s)			3.5	3.3	2.2	
p0 queue free %			88	91	96	
cM capacity (veh/h)			400	644	1099	

Direction, Lane #	EB 1	EB 2	NB 1	SW 1	SW 2
Volume Total	408	54	109	43	668
Volume Left	0	0	49	43	0
Volume Right	0	54	60	0	0
cSH	1700	1700	505	1099	1700
Volume to Capacity	0.24	0.03	0.22	0.04	0.39
Queue Length 95th (ft)	0	0	20	3	0
Control Delay (s)	0.0	0.0	14.1	8.4	0.0
Lane LOS			B	A	
Approach Delay (s)	0.0		14.1	0.5	
Approach LOS			B		

Intersection Summary					
Average Delay			1.5		
Intersection Capacity Utilization			41.4%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
 16: S Frontage Rd & Matterhorn Cir

05-168 Vail
 3/16/2009

						
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	400	79	67	590	66	29
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	435	86	73	641	72	32
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage (veh)				2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			521		1265	478
vC1, stage 1 conf vol					478	
vC2, stage 2 conf vol					787	
vCu, unblocked vol			521		1265	478
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			93		81	95
cM capacity (veh/h)			1046		369	588
Direction, Lane #	EB 1	WB 1	NW 1			
Volume Total	521	714	103			
Volume Left	0	73	72			
Volume Right	86	0	32			
cSH	1700	1046	417			
Volume to Capacity	0.31	0.07	0.25			
Queue Length 95th (ft)	0	6	24			
Control Delay (s)	0.0	1.8	16.5			
Lane LOS		A	C			
Approach Delay (s)	0.0	1.8	16.5			
Approach LOS			C			
Intersection Summary						
Average Delay			2.2			
Intersection Capacity Utilization			76.0%		ICU Level of Service	D
Analysis Period (min)			15			

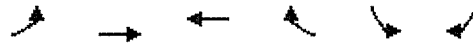
HCM Unsignalized Intersection Capacity Analysis
 17: S Frontage Rd & W Gore Creek Dr

05-168 Vail
 3/16/2009

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↘			↖	↗	
Volume (veh/h)	470	36	10	650	30	14
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	511	39	11	707	33	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			550		1259	530
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			550		1259	530
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		83	97
cM capacity (veh/h)			1020		186	549
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	550	717	48			
Volume Left	0	11	33			
Volume Right	39	0	15			
cSH	1700	1020	236			
Volume to Capacity	0.32	0.01	0.20			
Queue Length 95th (ft)	0	1	18			
Control Delay (s)	0.0	0.3	24.1			
Lane LOS		A	C			
Approach Delay (s)	0.0	0.3	24.1			
Approach LOS			C			
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			52.2%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 18: N Frontage Rd & W Drive

05-168 Vail
 3/16/2009



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	105	725	700	14	13	48
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	114	788	761	15	14	52
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage (veh)		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	776				1777	761
vC1, stage 1 conf vol					761	
vC2, stage 2 conf vol					1016	
vCu, unblocked vol	776				1777	761
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	86				94	87
cM capacity (veh/h)	840				256	405

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	114	788	761	15	66
Volume Left	114	0	0	0	14
Volume Right	0	0	0	15	52
cSH	840	1700	1700	1700	361
Volume to Capacity	0.14	0.46	0.45	0.01	0.18
Queue Length 95th (ft)	12	0	0	0	17
Control Delay (s)	10.0	0.0	0.0	0.0	17.2
Lane LOS	A				C
Approach Delay (s)	1.3		0.0		17.2
Approach LOS					C

Intersection Summary					
Average Delay			1.3		
Intersection Capacity Utilization			56.3%	ICU Level of Service	B
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
 19: N Frontage Rd & Safeway

05-168 Vail
 3/16/2009



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	145	580	555	88	48	157
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	158	630	603	96	52	171
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage (veh)		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	699				1549	603
vC1, stage 1 conf vol					603	
vC2, stage 2 conf vol					946	
vCu, unblocked vol	699				1549	603
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	82				81	66
cM capacity (veh/h)	898				277	499

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	158	630	603	96	223
Volume Left	158	0	0	0	52
Volume Right	0	0	0	96	171
cSH	898	1700	1700	1700	420
Volume to Capacity	0.18	0.37	0.35	0.06	0.53
Queue Length 95th (ft)	16	0	0	0	75
Control Delay (s)	9.9	0.0	0.0	0.0	22.8
Lane LOS	A				C
Approach Delay (s)	2.0		0.0		22.8
Approach LOS					C

Intersection Summary					
Average Delay			3.9		
Intersection Capacity Utilization			59.6%	ICU Level of Service	B
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
 20: N Frontage Rd & E Drive

05-168 Vail
 3/16/2009



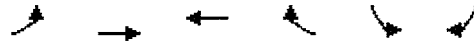
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	65	470	500	20	31	55
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	71	511	543	22	34	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage (veh)		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	565				1196	543
vC1, stage 1 conf vol					543	
vC2, stage 2 conf vol					652	
vCu, unblocked vol	565				1196	543
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	93				92	89
cM capacity (veh/h)	1007				402	539

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	71	511	543	22	93
Volume Left	71	0	0	0	34
Volume Right	0	0	0	22	60
cSH	1007	1700	1700	1700	480
Volume to Capacity	0.07	0.30	0.32	0.01	0.19
Queue Length 95th (ft)	6	0	0	0	18
Control Delay (s)	8.8	0.0	0.0	0.0	14.3
Lane LOS	A				B
Approach Delay (s)	1.1		0.0		14.3
Approach LOS					B

Intersection Summary					
Average Delay			1.6		
Intersection Capacity Utilization			45.0%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
 21: N Frontage Rd & City Market

05-168 Vail
 3/16/2009



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	65	445	405	44	37	96
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	71	484	440	48	40	104
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage (veh)		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	488				1065	440
vC1, stage 1 conf vol					440	
vC2, stage 2 conf vol					625	
vCu, unblocked vol	488				1065	440
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	93				91	83
cM capacity (veh/h)	1075				434	617

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	71	484	440	48	145
Volume Left	71	0	0	0	40
Volume Right	0	0	0	48	104
cSH	1075	1700	1700	1700	552
Volume to Capacity	0.07	0.28	0.26	0.03	0.26
Queue Length 95th (ft)	5	0	0	0	26
Control Delay (s)	8.6	0.0	0.0	0.0	13.8
Lane LOS	A				B
Approach Delay (s)	1.1		0.0		13.8
Approach LOS					B

Intersection Summary					
Average Delay			2.2		
Intersection Capacity Utilization			42.9%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
 22: N Frontage Rd & Buffehr Creek Rd

05-168 Vail
 3/16/2009



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		←	←		←	
Volume (veh/h)	60	380	340	31	18	44
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	65	413	370	34	20	48
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	None			
Median storage (veh)		2				
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	403				930	386
vC1, stage 1 conf vol					386	
vC2, stage 2 conf vol					543	
vCu, unblocked vol	403				930	386
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	94				96	93
cM capacity (veh/h)	1155				481	661

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	478	403	67
Volume Left	65	0	20
Volume Right	0	34	48
cSH	1155	1700	597
Volume to Capacity	0.06	0.24	0.11
Queue Length 95th (ft)	4	0	9
Control Delay (s)	1.7	0.0	11.8
Lane LOS	A		B
Approach Delay (s)	1.7	0.0	11.8
Approach LOS			B

Intersection Summary			
Average Delay		1.7	
Intersection Capacity Utilization		56.8%	ICU Level of Service
Analysis Period (min)		15	B

HCM Unsignalized Intersection Capacity Analysis
 23: N Frontage Rd & Lions Ridge Loop

05-168 Vail
 3/16/2009



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↔	↔		↔	
Volume (veh/h)	30	330	325	35	32	36
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	359	353	38	35	39
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	391				796	372
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	391				796	372
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				90	94
cM capacity (veh/h)	1167				346	674

Direction, Lane #	EB 1	WB 1	SE 1
Volume Total	391	391	74
Volume Left	33	0	35
Volume Right	0	38	39
cSH	1167	1700	466
Volume to Capacity	0.03	0.23	0.16
Queue Length 95th (ft)	2	0	14
Control Delay (s)	0.9	0.0	14.2
Lane LOS	A		B
Approach Delay (s)	0.9	0.0	14.2
Approach LOS			B

Intersection Summary			
Average Delay		1.7	
Intersection Capacity Utilization		52.2%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis
 24: N Frontage Rd & Red Sandstone Rd

05-168 Vail
 3/16/2009



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Volume (veh/h)	49	300	375	82	28	59
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	326	408	89	30	64
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	497				885	452
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	497				885	452
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				90	89
cM capacity (veh/h)	1067				300	607

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	379	497	95
Volume Left	53	0	30
Volume Right	0	89	64
cSH	1067	1700	457
Volume to Capacity	0.05	0.29	0.21
Queue Length 95th (ft)	4	0	19
Control Delay (s)	1.7	0.0	14.9
Lane LOS	A		B
Approach Delay (s)	1.7	0.0	14.9
Approach LOS			B

Intersection Summary			
Average Delay		2.1	
Intersection Capacity Utilization		58.4%	ICU Level of Service B
Analysis Period (min)		15	

APPENDIX C

2005-2006 Season Travel Time Summary

Origin/ Destination/Route	Peak Season		Non-Peak Season	
	Non-Peak Hour	PM Peak Hour	Non-Peak Hour	PM Peak Hour
Village St. to Safeway				
S Fr. Road				
-Clear	7:11			
-Wet		8:01		
-Snowpack	7:21	12:08		
N Fr. Road				
-Clear			5:32	5:47
-Wet		8:52		
-Snowpack	5:57	8:33		
I-70				
-Clear			4:57	
-Wet	4:32			
-Snowpack				
Safeway to Village St.				
N Fr. Road				
-Clear		5:40		5:56
-Wet				
-Snowpack				
Lionshead Pkg Structure to Safeway				
S Fr. Road				
-Clear		4:45	4:57	5:19
-Wet		5:25		
-Snowpack	4:59	4:52		
N Fr. Road				
-Clear			5:53	
-Wet		6:23		
-Snowpack	10:49	6:55		
I-70				
-Clear			4:50	
-Wet	5:17			
-Snowpack				
Safeway to Lionshead Pkg Structure				
S Fr. Road				
-Clear		4:45		5:50
-Wet				
-Snowpack				
Redsandstone Rd to Cascade				
WB Frontage Route				
-Clear			5:31	
-Wet		7:25		
-Snowpack	5:40			
EB Frontage Route				
-Clear			5:32	
-Wet		6:45		
-Snowpack	5:51			

2/28/2006

2005-2006 Movement Delay Survey Summary

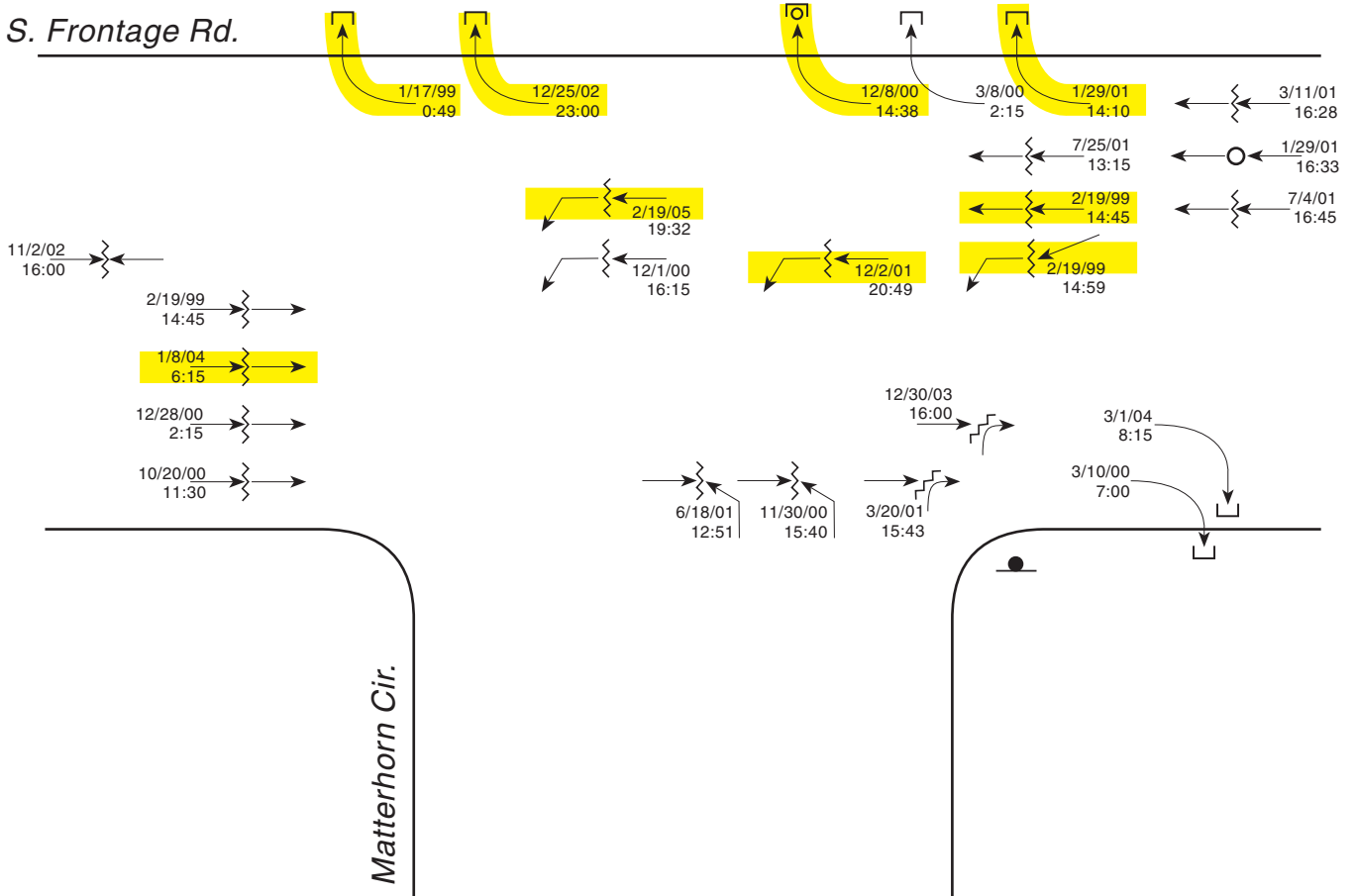
Vehicular Delay (sec)					
Intersection/Movement	Peak Season		Non-Peak Season		Peak Season
	Non-Peak Hour	PM Peak Hour	Non-Peak Hour	PM Peak Hour	Calculated PM Peak Hour
Vail Valley Dr (Blue Cow Chute)					
EB Approach					173.9
-Clear		0	0	15	
-Wet					
-Snowpack					
WB Approach					356
-Clear		10	0	18	
-Wet					
-Snowpack					
Village Parking Structure					
NB Left (Out of Structure)					48.9
-Clear		2	0	4	
-Wet	0	12		20	
-Snowpack	17	72			
Village Center Rd					
NB Left					24.5
-Clear		17	2	20	
-Wet	23	15			
-Snowpack	4	77		9	
Main Vail Roundabout S					
WB					3.0
-Clear	0	3			
-Wet	0	6		0	
-Snowpack	0	11			
SB					3.6
-Clear			0	0	
-Wet	0	0		0	
-Snowpack	0	10			
EB					2.4
-Clear			0	0	
-Wet	5	3		3	
-Snowpack		0			
EB (1-70 Ramp)					3.0
-Clear					
-Wet		10			
-Snowpack	31				
NB					2.4
-Clear		3	0	95	
-Wet	0	29			
-Snowpack	2	411			
Lionshead Parking Structure					
NB Left (Out of Structure)					51.9
-Clear		20	16		
-Wet	21	23		34	
-Snowpack	17				

E Lionshead Cir					
NB Left					
	-Clear		0	39	38.4
	-Wet	5	38		
	-Snowpack	21	101		
W Lionshead Cir					
WB Left					
	-Clear		9	13	8.3
	-Wet	11	9		
	-Snowpack	39	18		
NB Left					
	-Clear		8	44	25.7
	-Wet	20	28		
	-Snowpack	6	17		
W Vail Roundabout S					
WB					
	-Clear		0	0	3.6
	-Wet	0	11		
	-Snowpack	0	34		
W Vail Roundabout N					
WB					
	-Clear		0	19	5.4
	-Wet	0	23	191	
	-Snowpack	0	30		
McDonalds Access					
SB Left					
	-Clear		29		22.5
	-Wet	20	47	44	
	-Snowpack	25	0		
Safeway Access					
SB Left					
	-Clear			29	23.9
	-Wet	12	23		
	-Snowpack	6	0		
Buffehr Creek Rd					
SB Left					
	-Clear				18.4
	-Wet	14	10		
	-Snowpack	5	35		
Red Sandstone Rd					
SB Left					
	-Clear				18.4
	-Wet	29	7		
	-Snowpack	4	20		

2/28/2006

APPENDIX D

S. Frontage Rd.

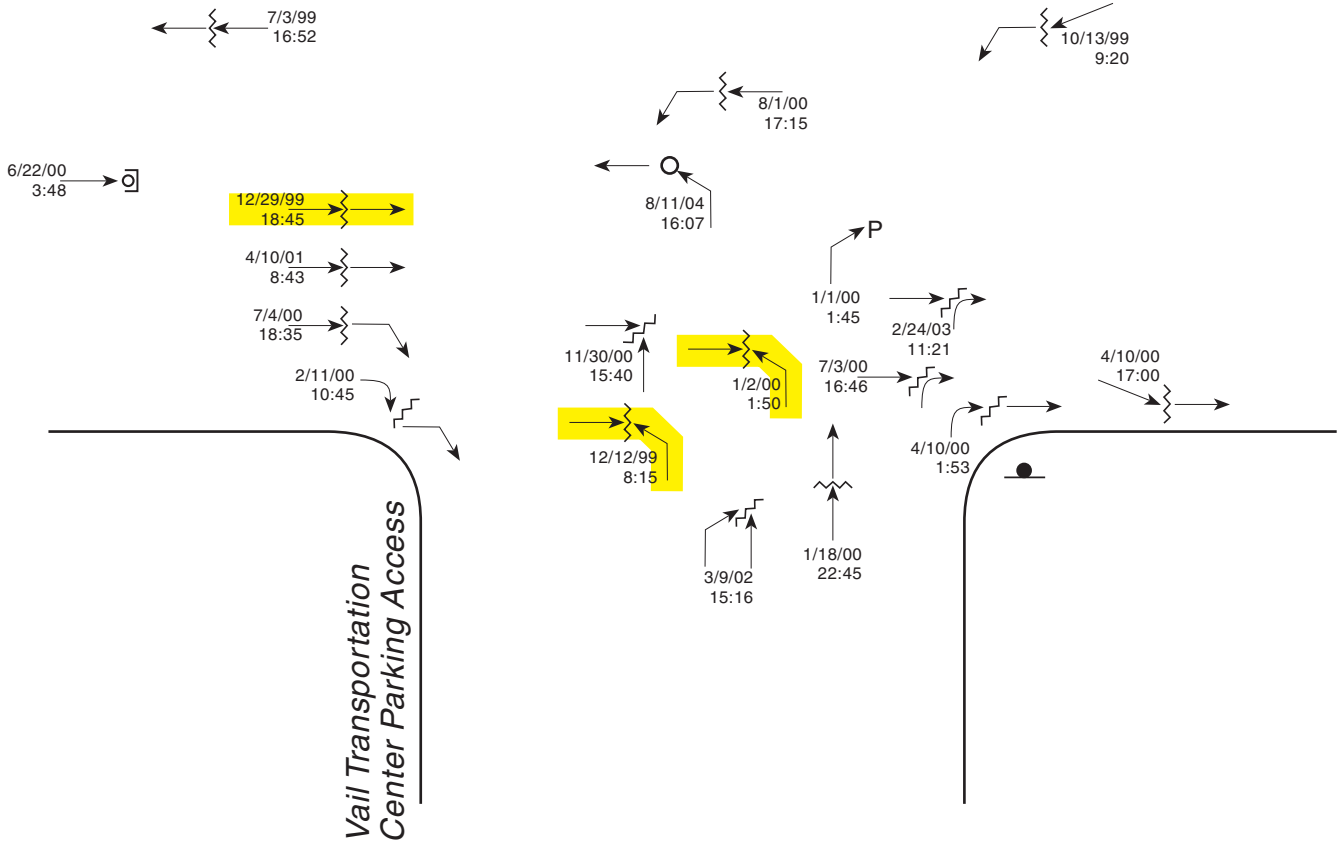


LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
□ Fixed Object	● Stop Sign	
←←← Overturn		
→↔ Head-On		
A← Animal		
P← Pedestrian		

Figure A
Collision Diagram
S. Frontage Road / Matterhorn Circle



S. Frontage Rd.

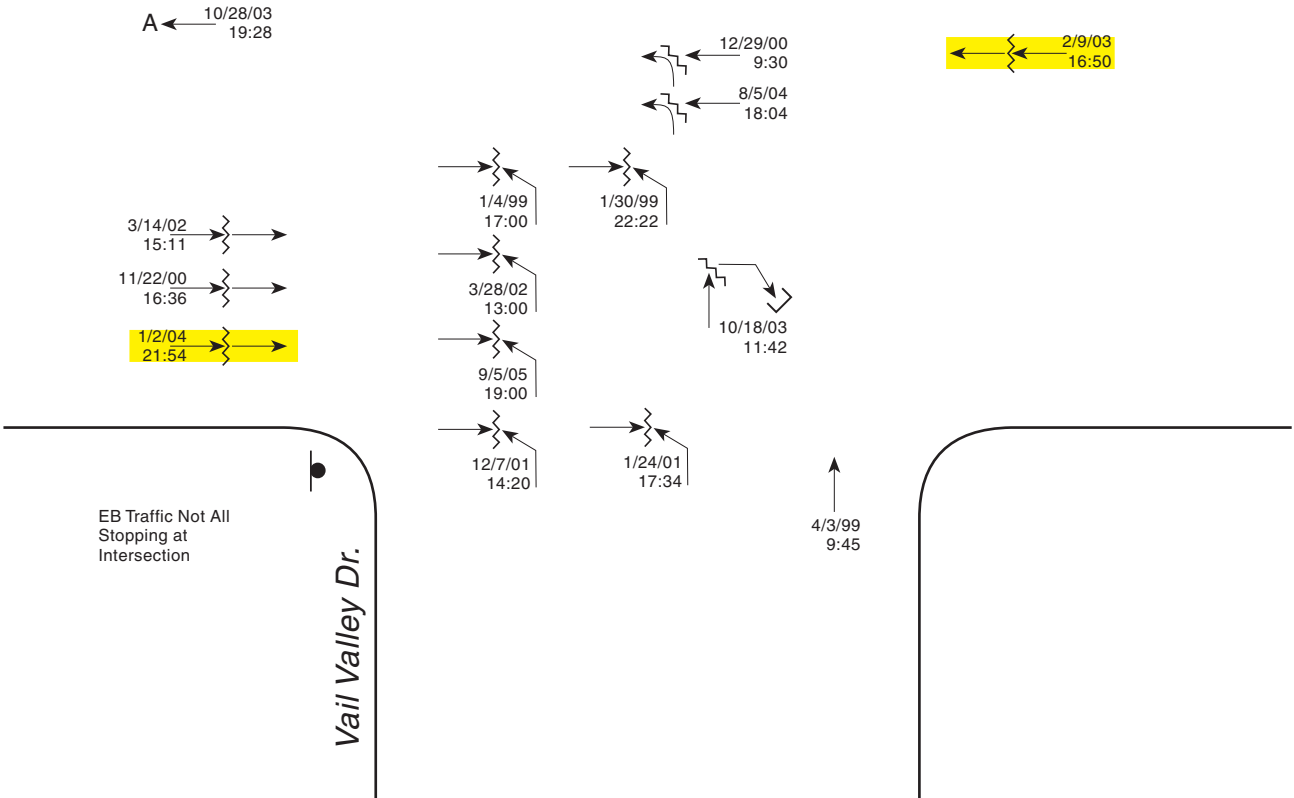


LEGEND		
Collision Types:	Severity:	Other:
← Rear End	~ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
[- Fixed Object	● Stop Sign	
←← Overturn		
→→ Head-On		
A← Animal		
P← Pedestrian		

Figure B
Collision Diagram
S. Frontage Road /
Vail Transportation Center Parking Access



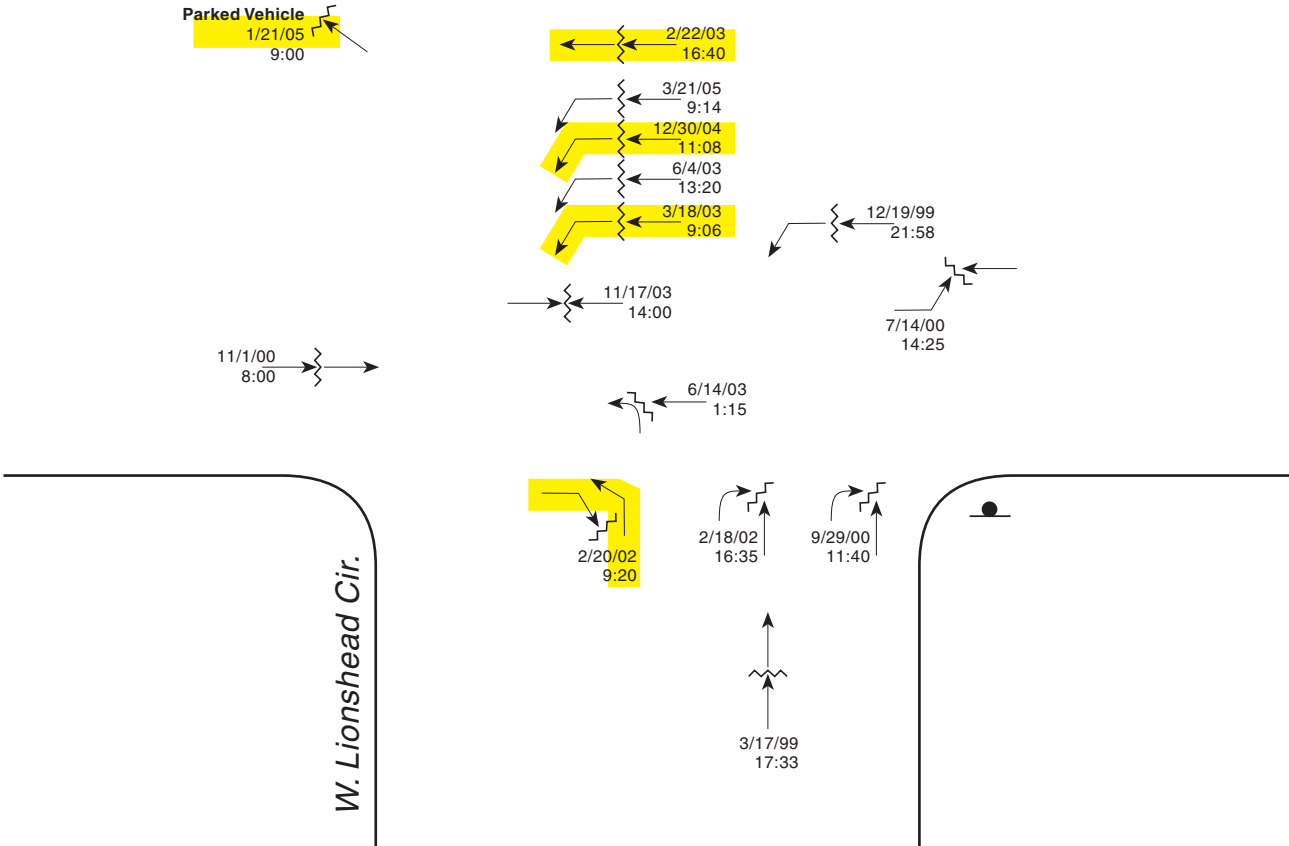
S. Frontage Rd.



**Figure C
Collision Diagram
S. Frontage Road / Vail Valley Drive**



S. Frontage Rd.

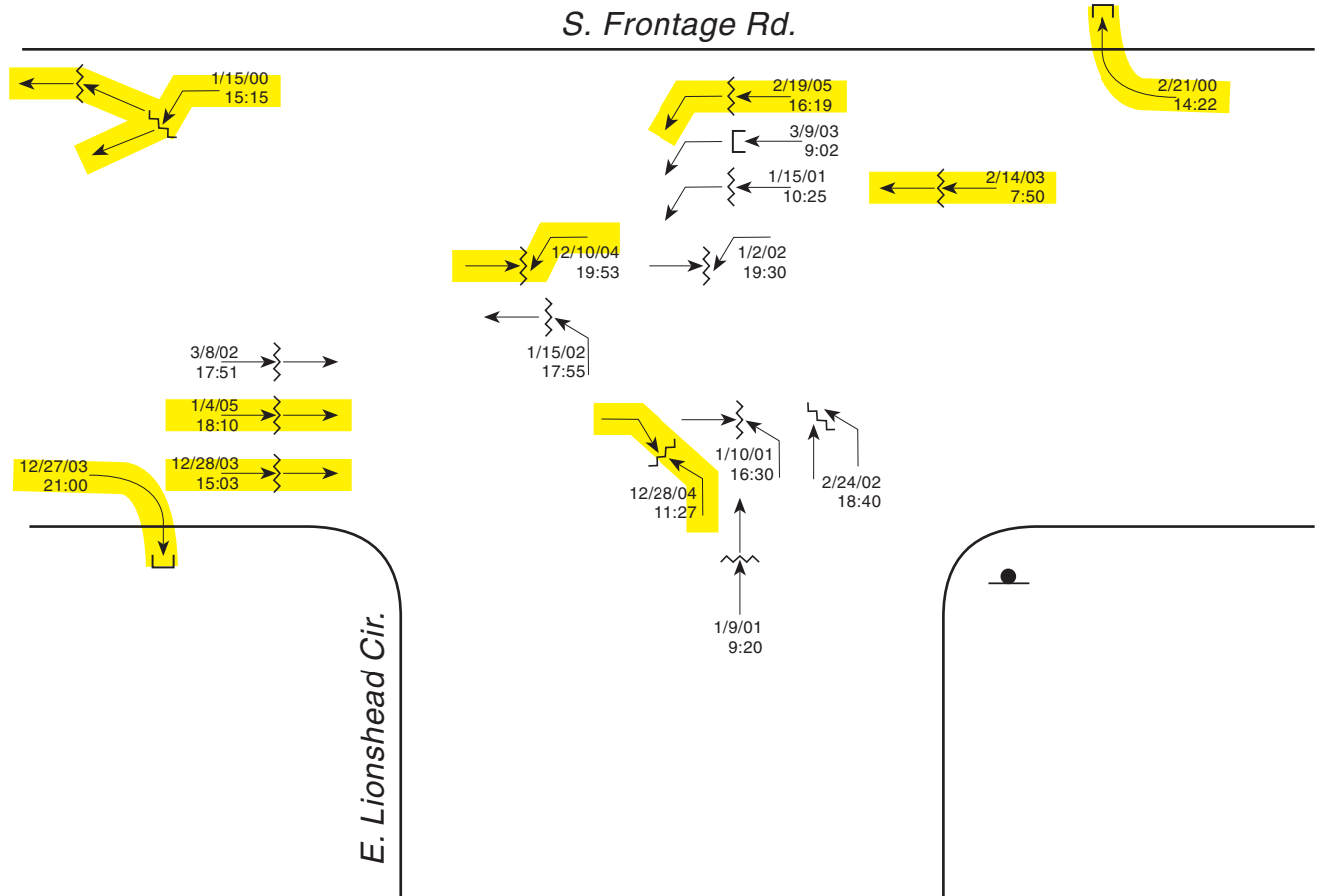


LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⚡ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
⌊ Fixed Object	● Stop Sign	
←←← Overturn		
→← Head-On		
A← Animal		
P← Pedestrian		

Figure D
Collision Diagram

S. Frontage Road / W. Lionshead Circle



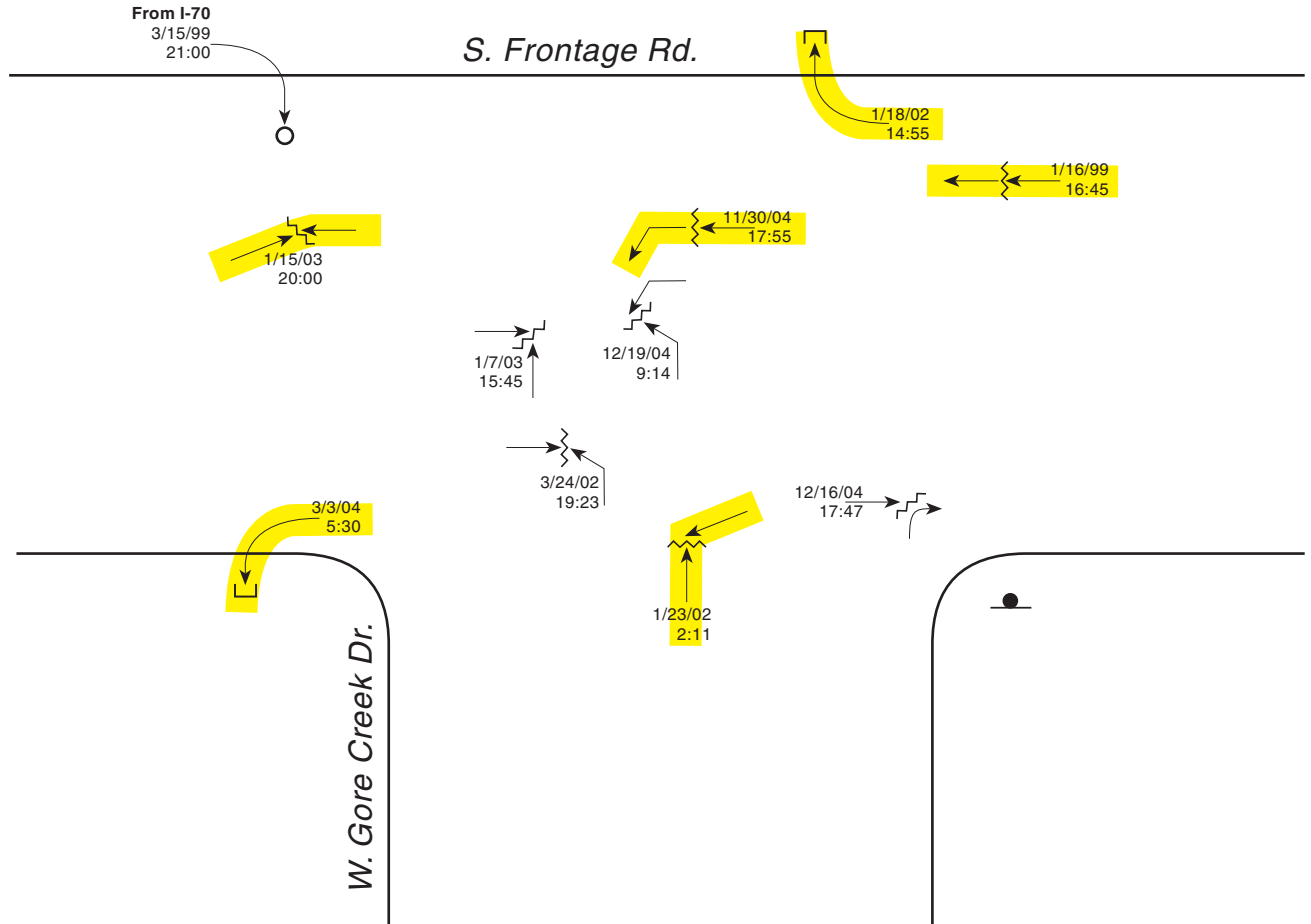


LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
□ Fixed Object	● Stop Sign	
←← Overturn		
→→ Head-On		
A← Animal		
P← Pedestrian		

Figure E
Collision Diagram
S. Frontage Road / E. Lionshead Circle



North

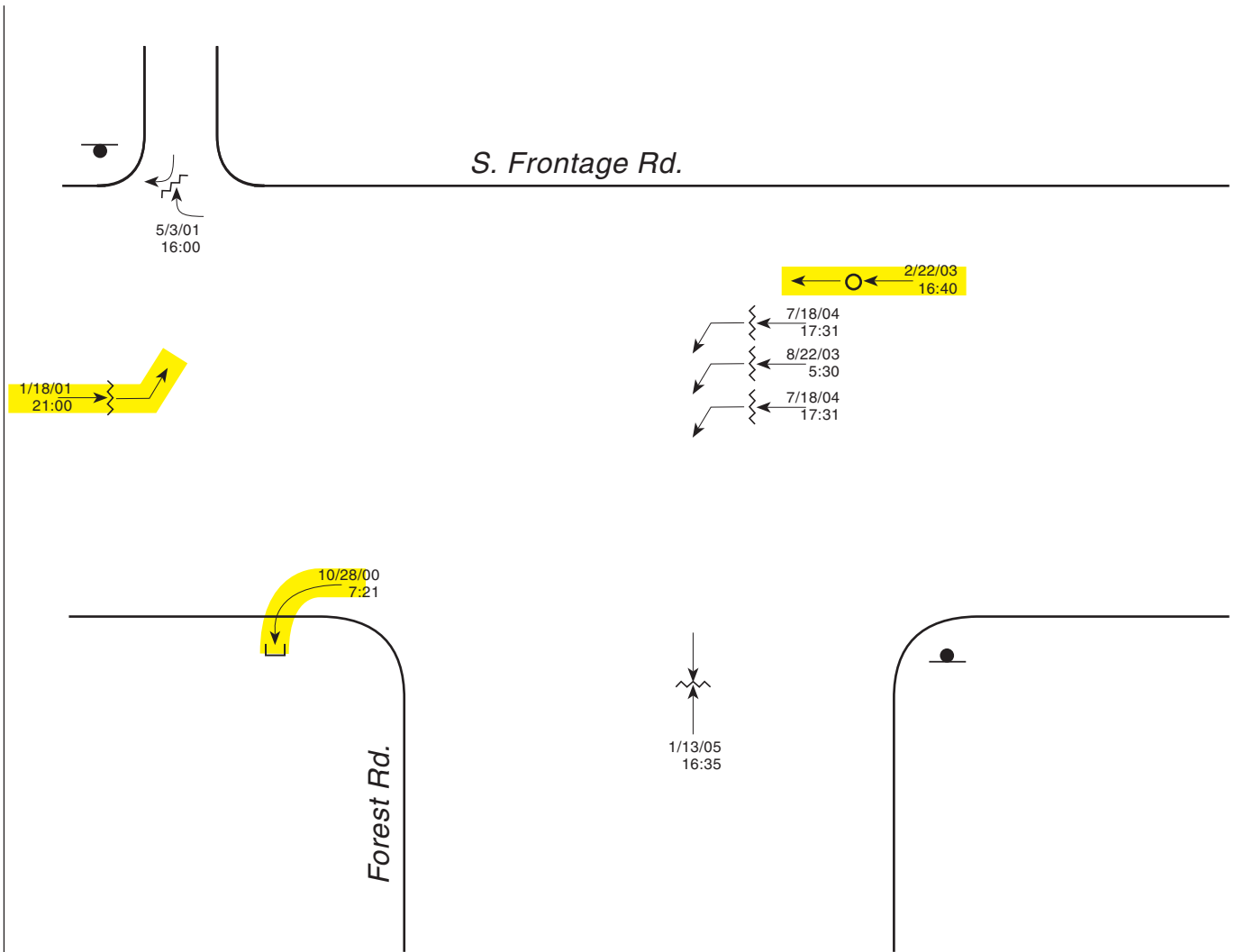


LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
[- Fixed Object	⬤ Stop Sign	
←← Overturn		
→← Head-On		
A← Animal		
P← Pedestrian		

Figure F
Collision Diagram
S. Frontage Road / W. Gore Creek Drive



North

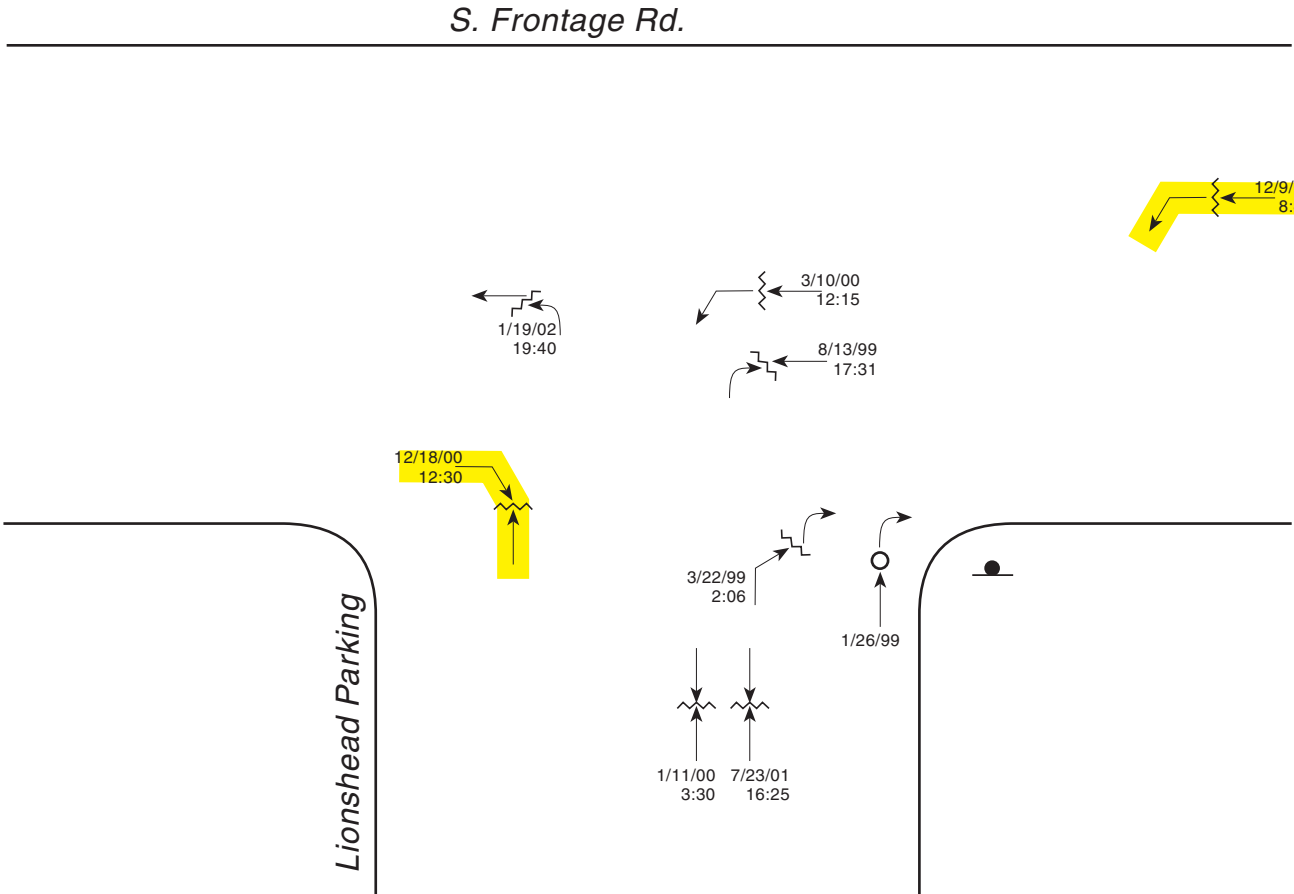


LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↗ Angle	● Fatality	
☐ Fixed Object	● Stop Sign	
←← Overturn		
→→ Head-On		
A← Animal		
P← Pedestrian		



North

Figure G
Collision Diagram
S. Frontage Road / Forest Road



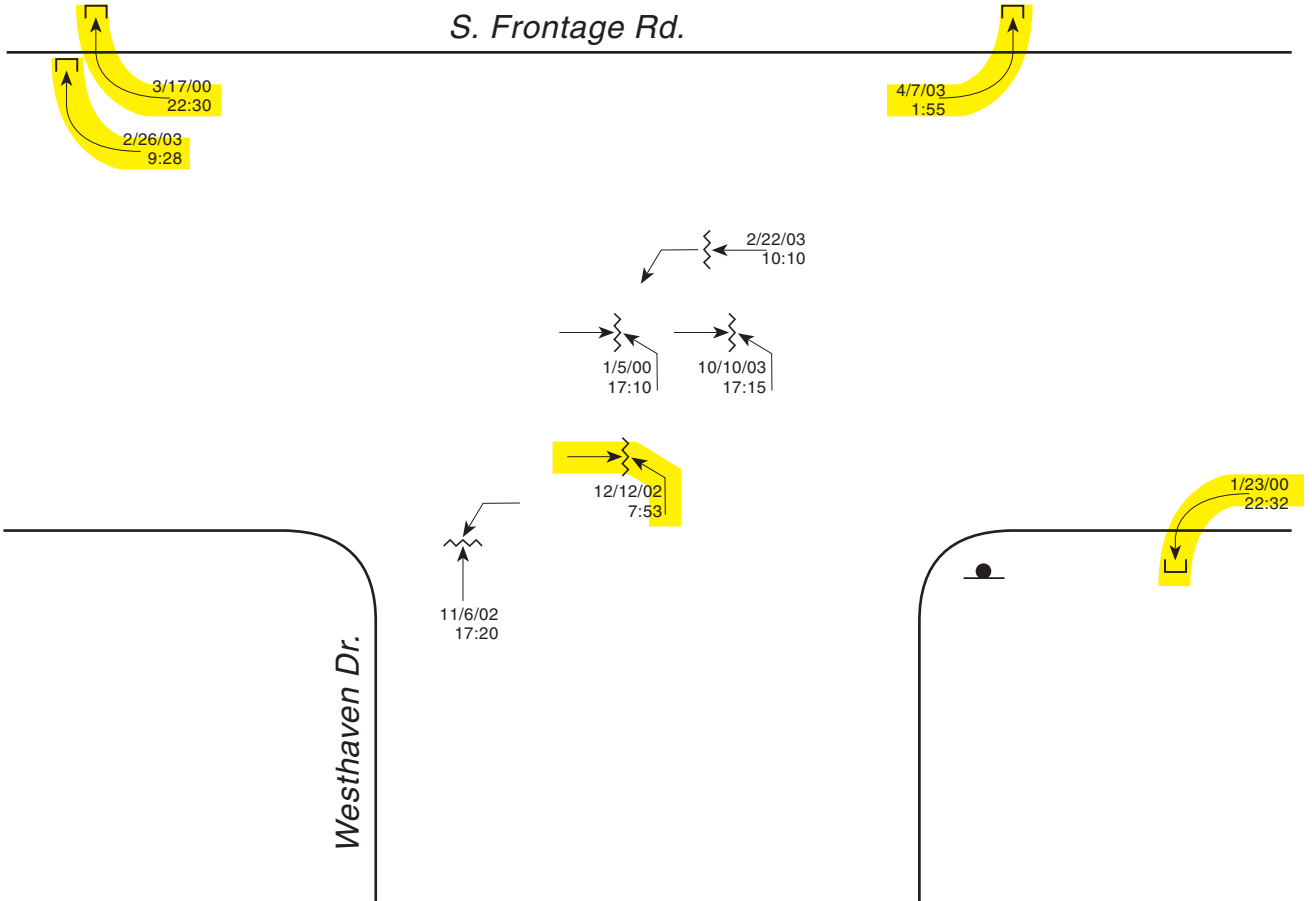
LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
[- Fixed Object	● Stop Sign	
←←← Overturn		
→→ Head-On		
A← Animal		
P← Pedestrian		

Figure H
Collision Diagram

S. Frontage Road / Lionshead Parking



North

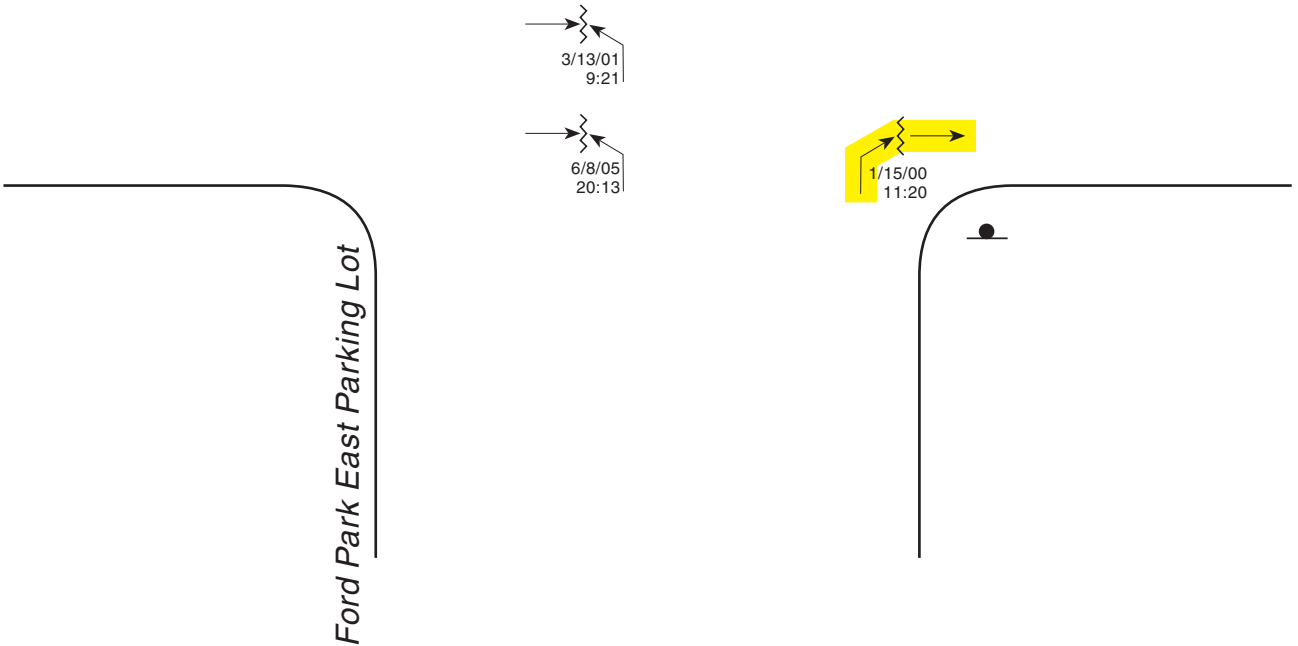


LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
☐ Fixed Object	● Stop Sign	
←←← Overturn		
→→ Head-On		
A← Animal		
P← Pedestrian		

Figure I
Collision Diagram
S. Frontage Road / Westhaven Drive



S. Frontage Rd.

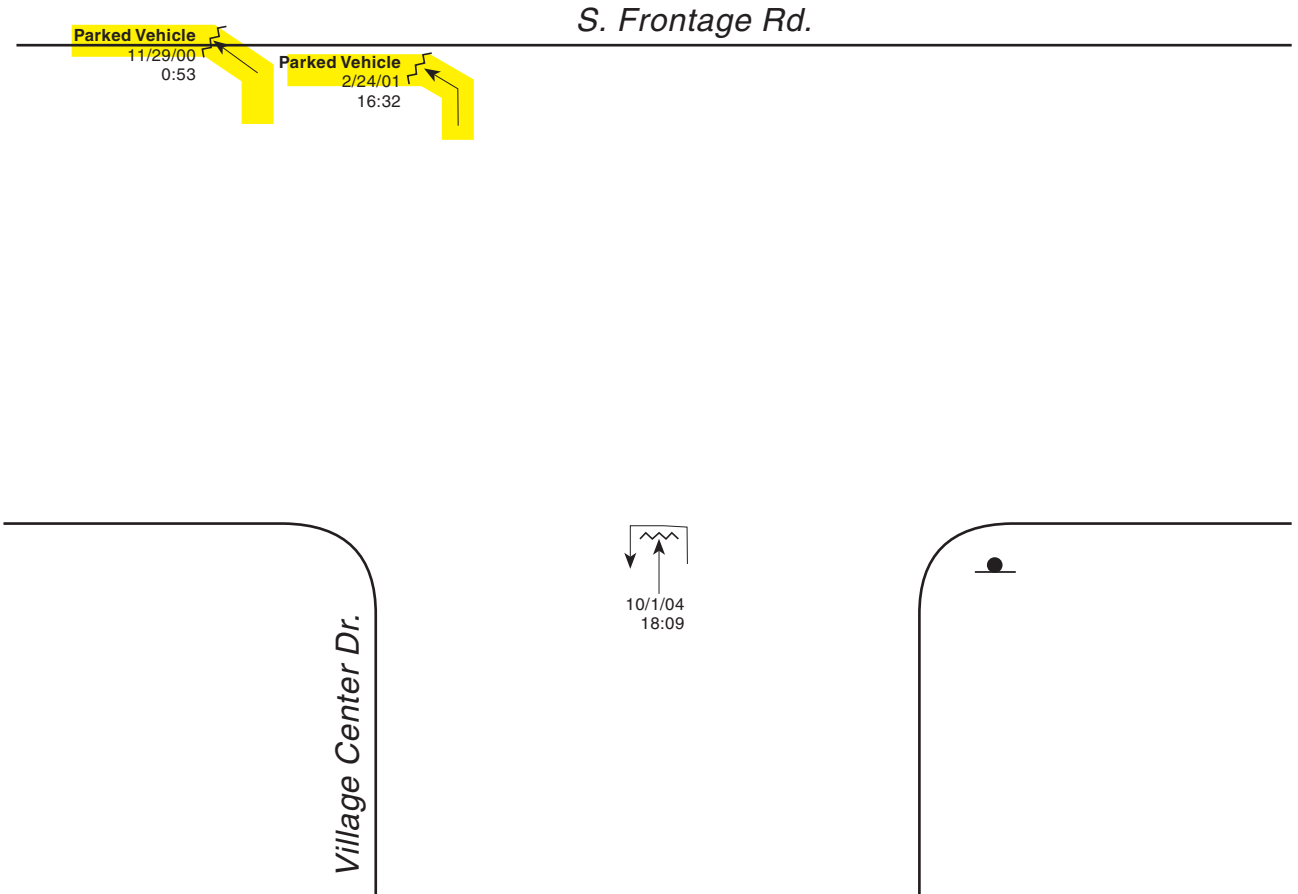


LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑← Angle	● Fatality	
□← Fixed Object	● Stop Sign	
←←← Overturn		
→← Head-On		
A← Animal		
P← Pedestrian		

Figure J
Collision Diagram

S. Frontage Road / Ford Park East Parking Lot



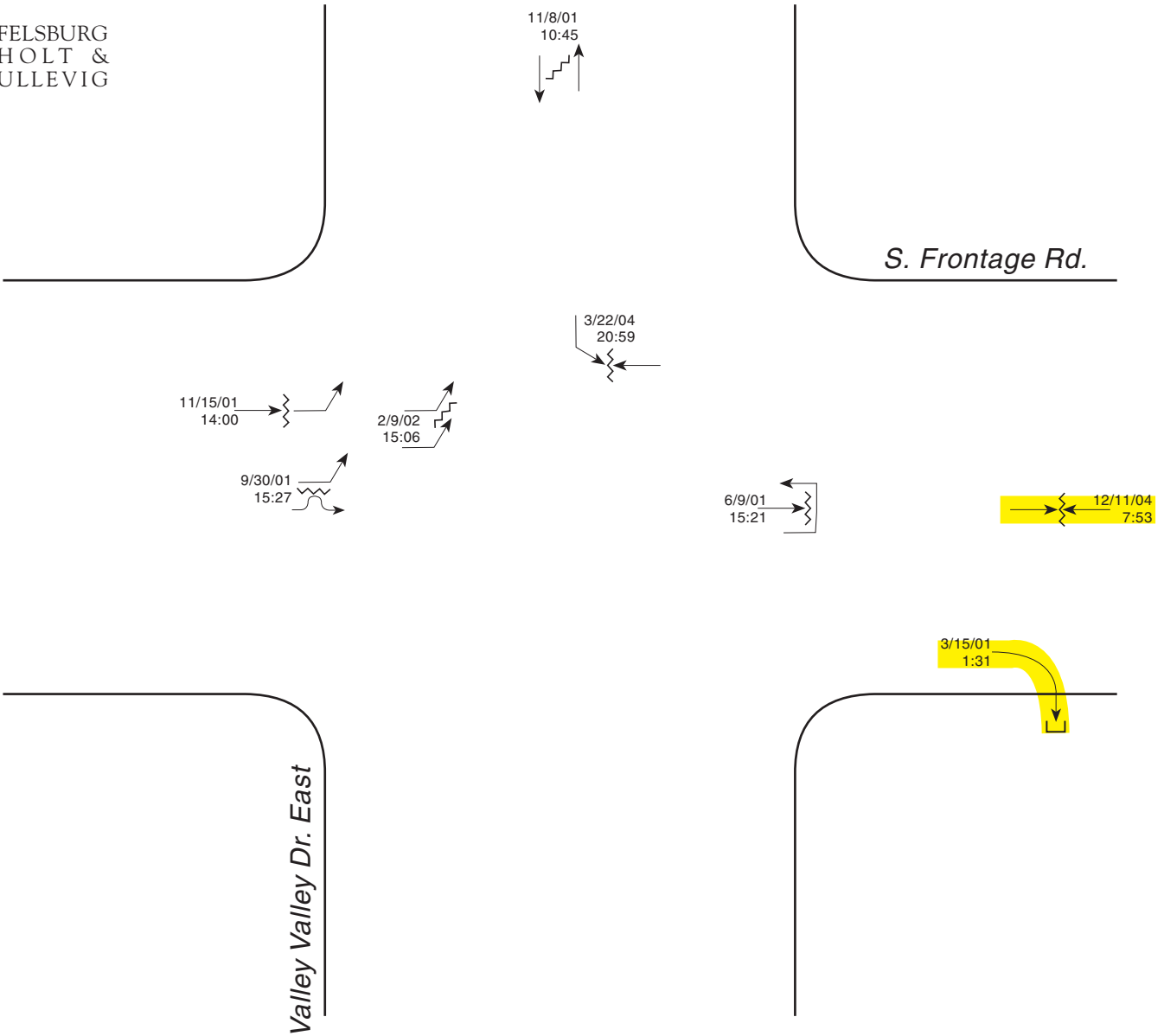


LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
⌈ Fixed Object	● Stop Sign	
←←← Overturn		
→→ Head-On		
A← Animal		
P← Pedestrian		

Figure K
Collision Diagram

S. Frontage Road / Village Center Drive





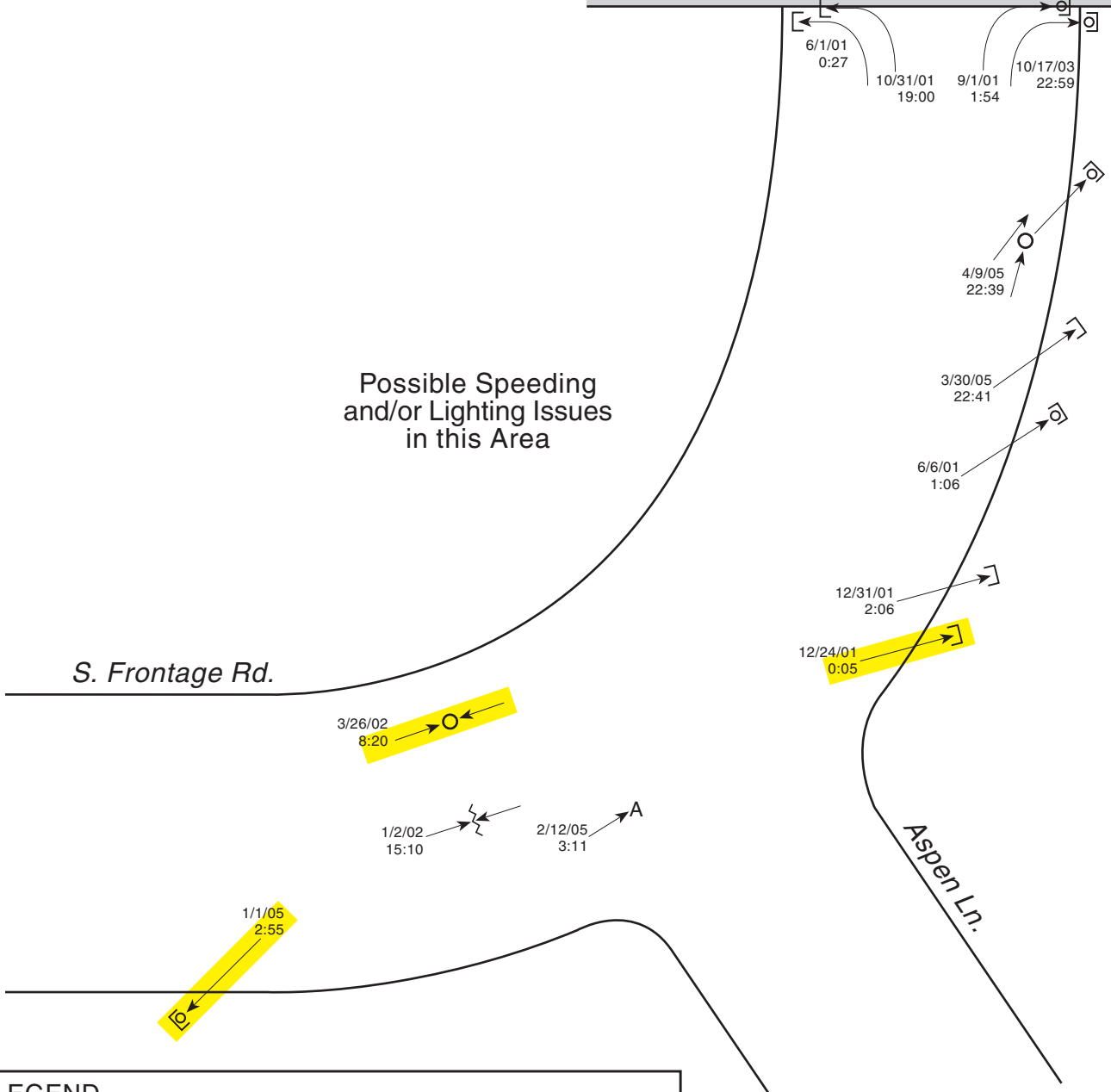
LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
□ Fixed Object	⬤ Stop Sign	
←←← Overturn		
→← Head-On		
A← Animal		
P← Pedestrian		

Figure L
Collision Diagram

S. Frontage Road / Vail Valley Drive East



I-70 Overpass

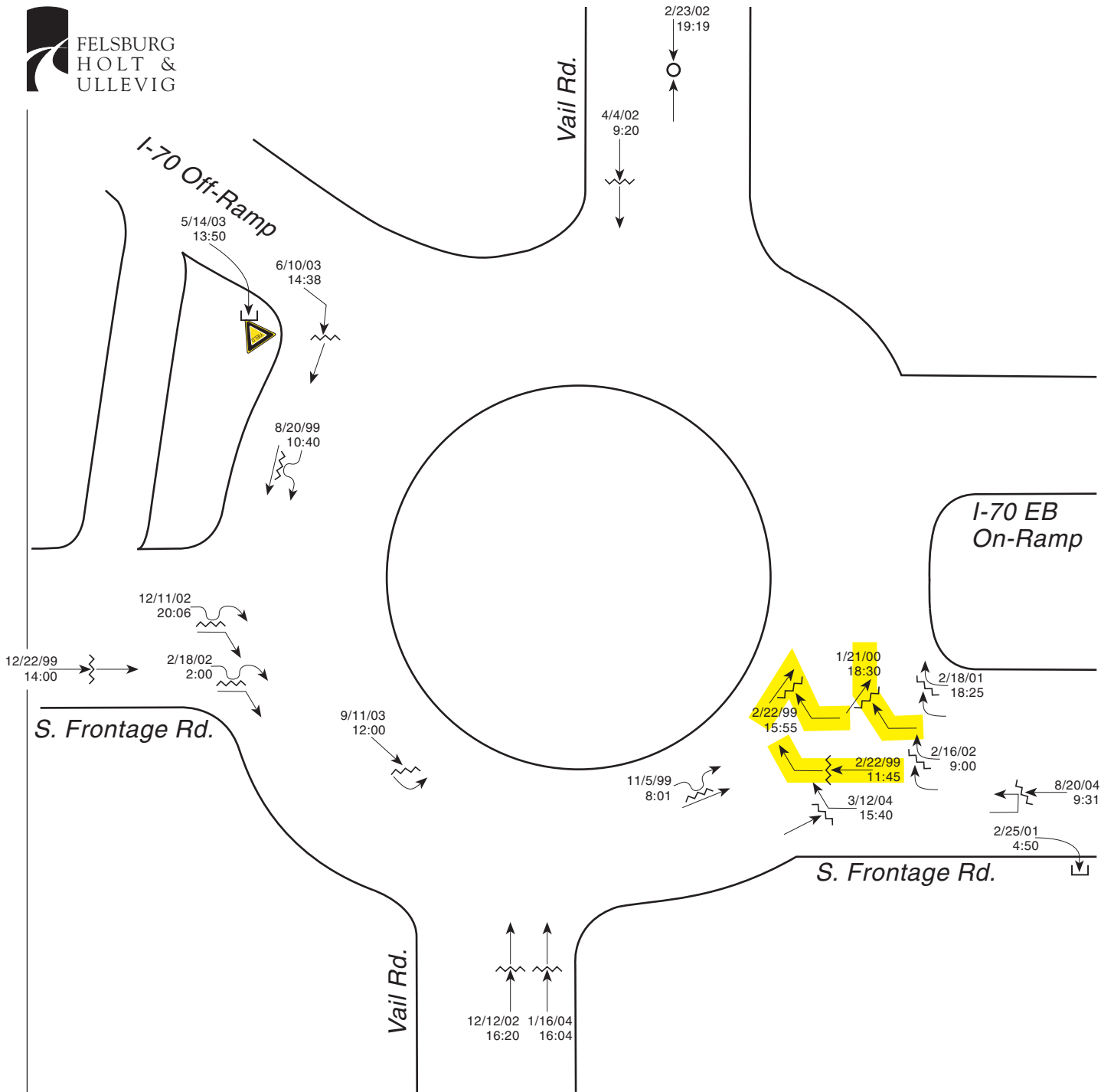


LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↗ Angle	● Fatality	
⌈← Fixed Object	● Stop Sign	
←←← Overturn		
→→ Head-On		
A← Animal		
P← Pedestrian		

Figure M
Collision Diagram

S. Frontage Road / Aspen Lane

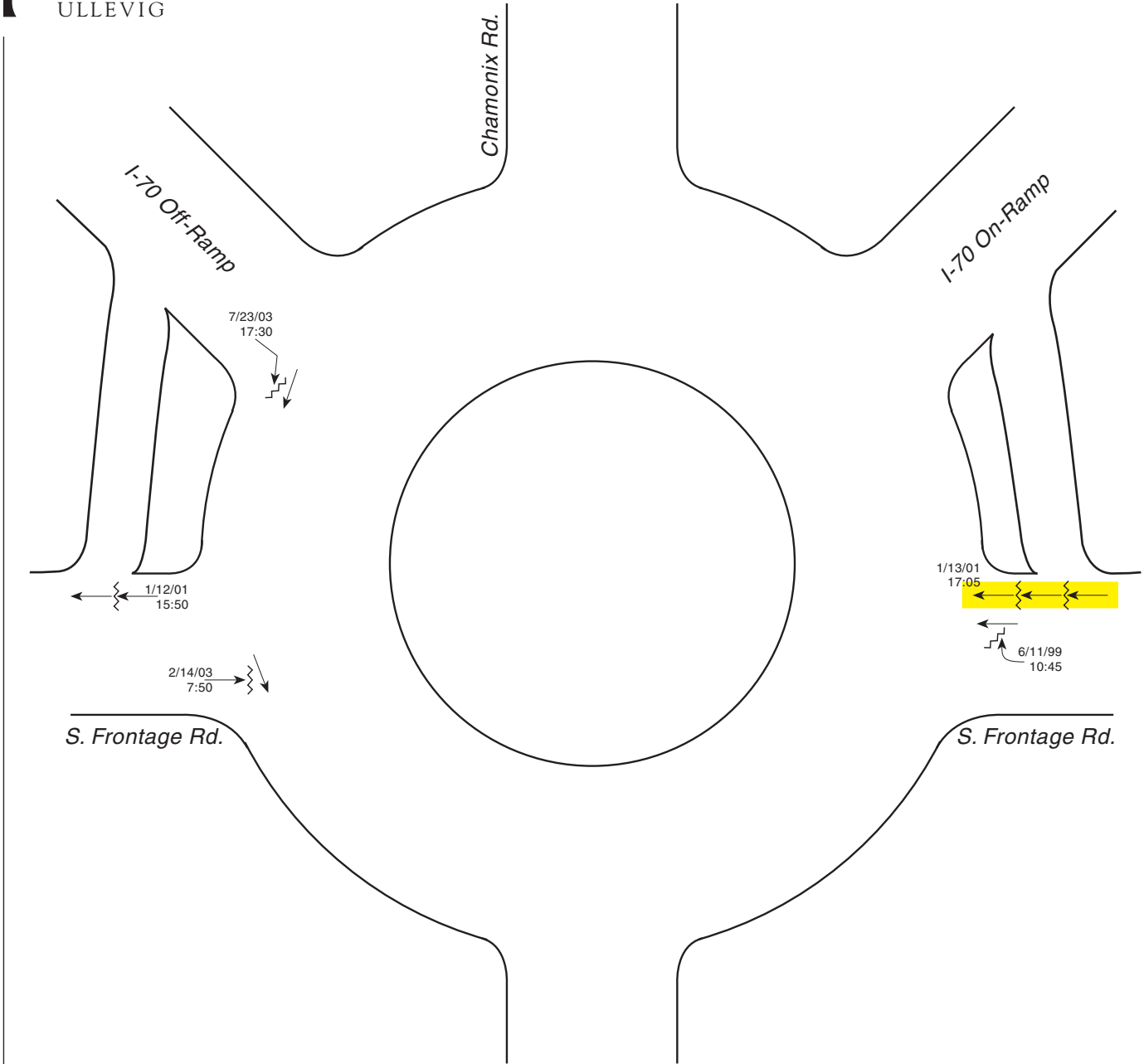




LEGEND		
Collision Types:	Severity:	Other:
← Rear End	〰 PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	■ Slick Conditions
↑ Angle	● Fatality	
[- Fixed Object	● Stop Sign	
←← Overturn		
→→ Head-On		
A ← Animal		
P ← Pedestrian		

Figure N
Collision Diagram
Main Roundabout





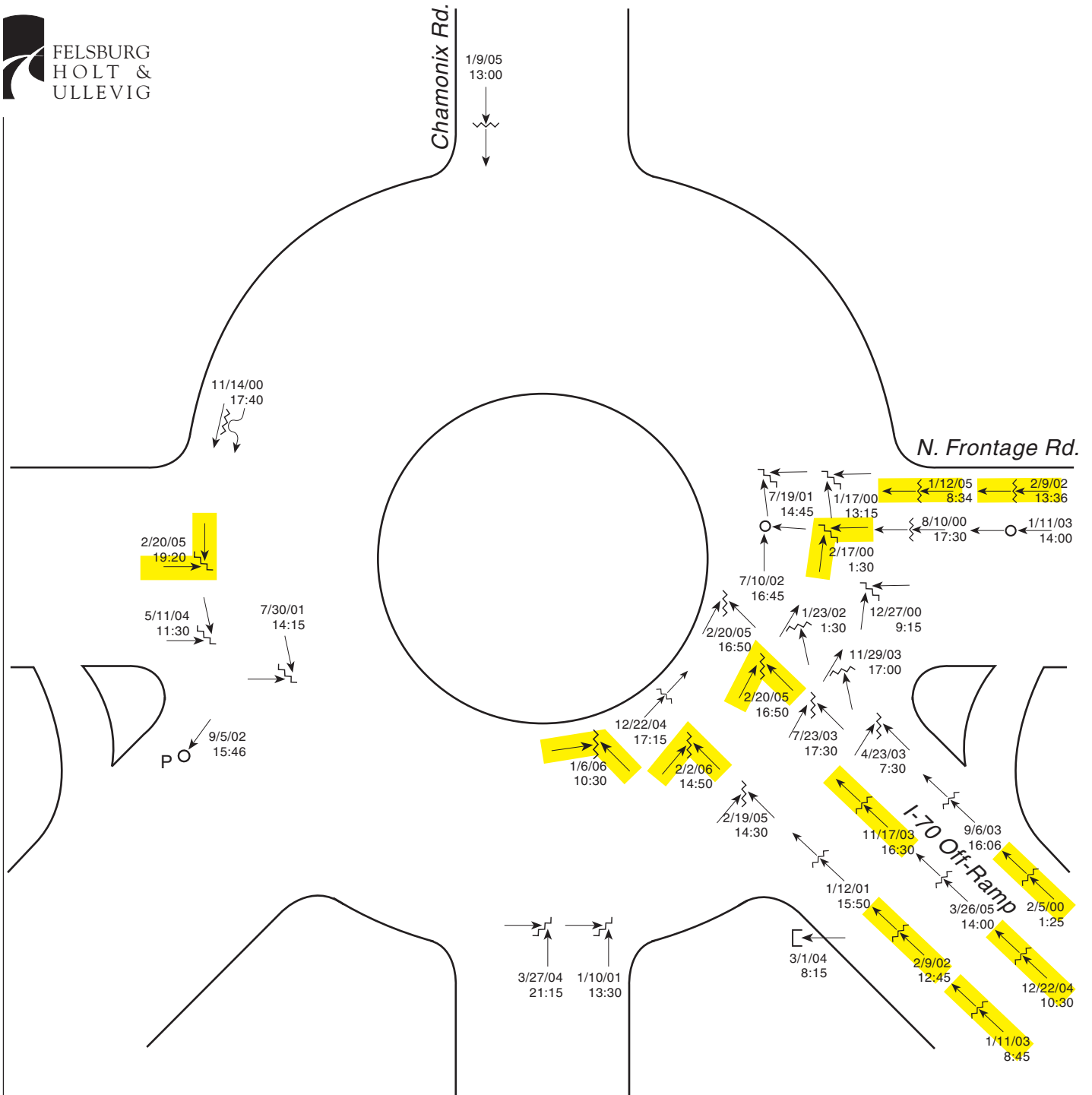
LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
⌊ Fixed Object	● Stop Sign	
←← Overturn		
→→ Head-On		
A← Animal		
P← Pedestrian		

Figure O
Collision Diagram

West Vail South Roundabout



North

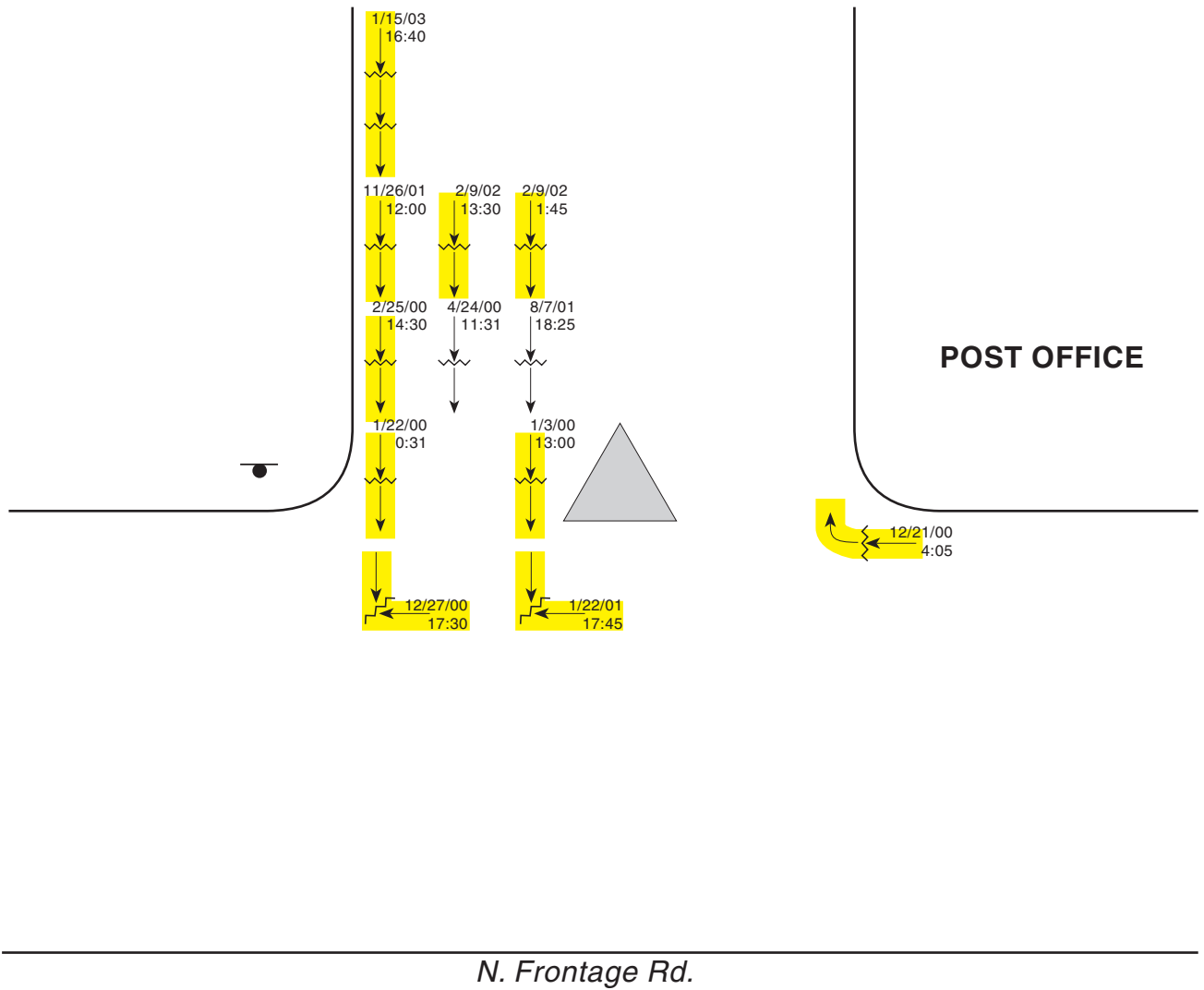


LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	~~~~~ PDO	XX/XX/XX Month/Day/Year
←← Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
□ Fixed Object	■ Stop Sign	
←← Overturn		
→→ Head-On		
A ← Animal		
P ← Pedestrian		

Figure P
Collision Diagram

West Vail North Roundabout



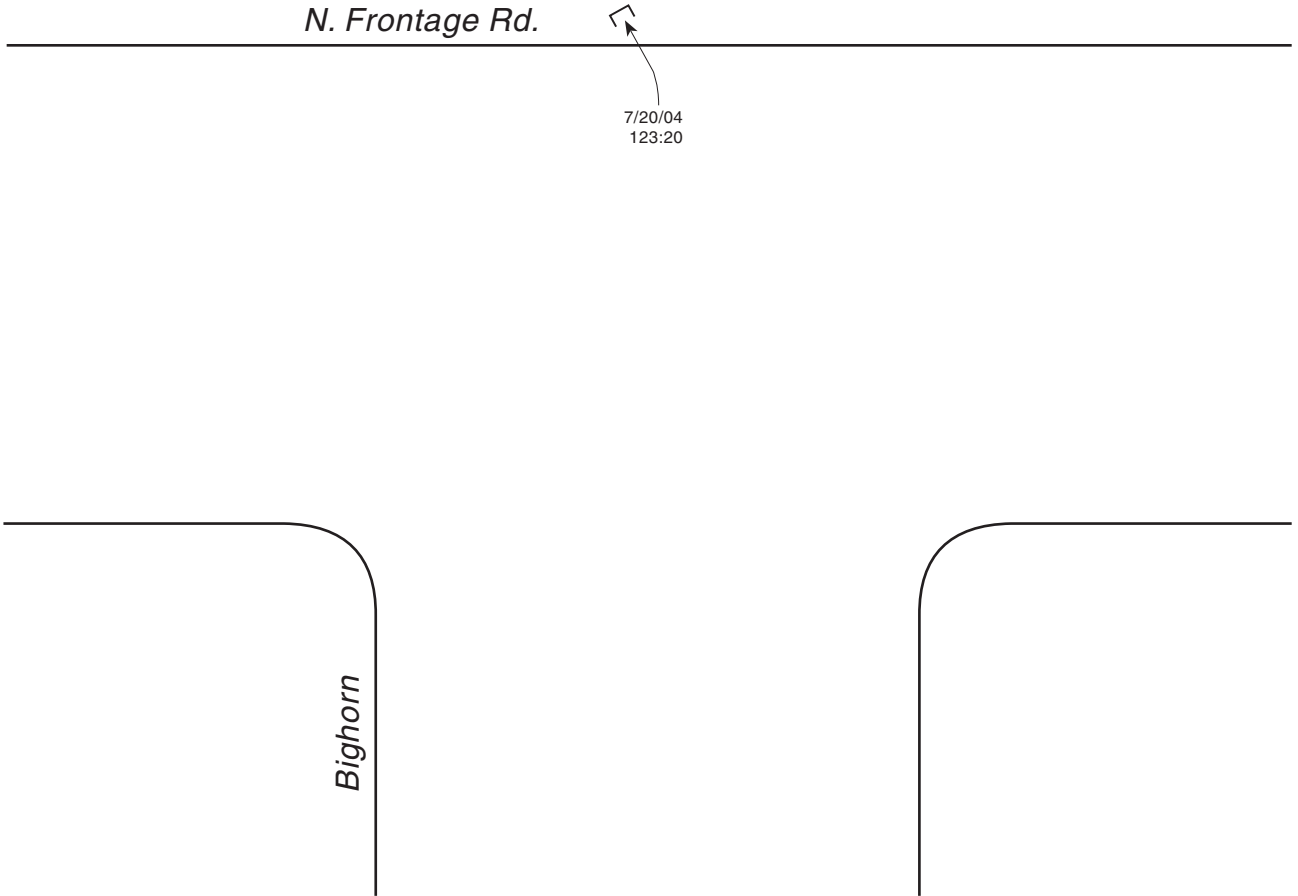


LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
□← Fixed Object	⬤ Stop Sign	
←←← Overturn		
→← Head-On		
A← Animal		
P← Pedestrian		

Figure Q
Collision Diagram
Post Office and N. Frontage Road



North

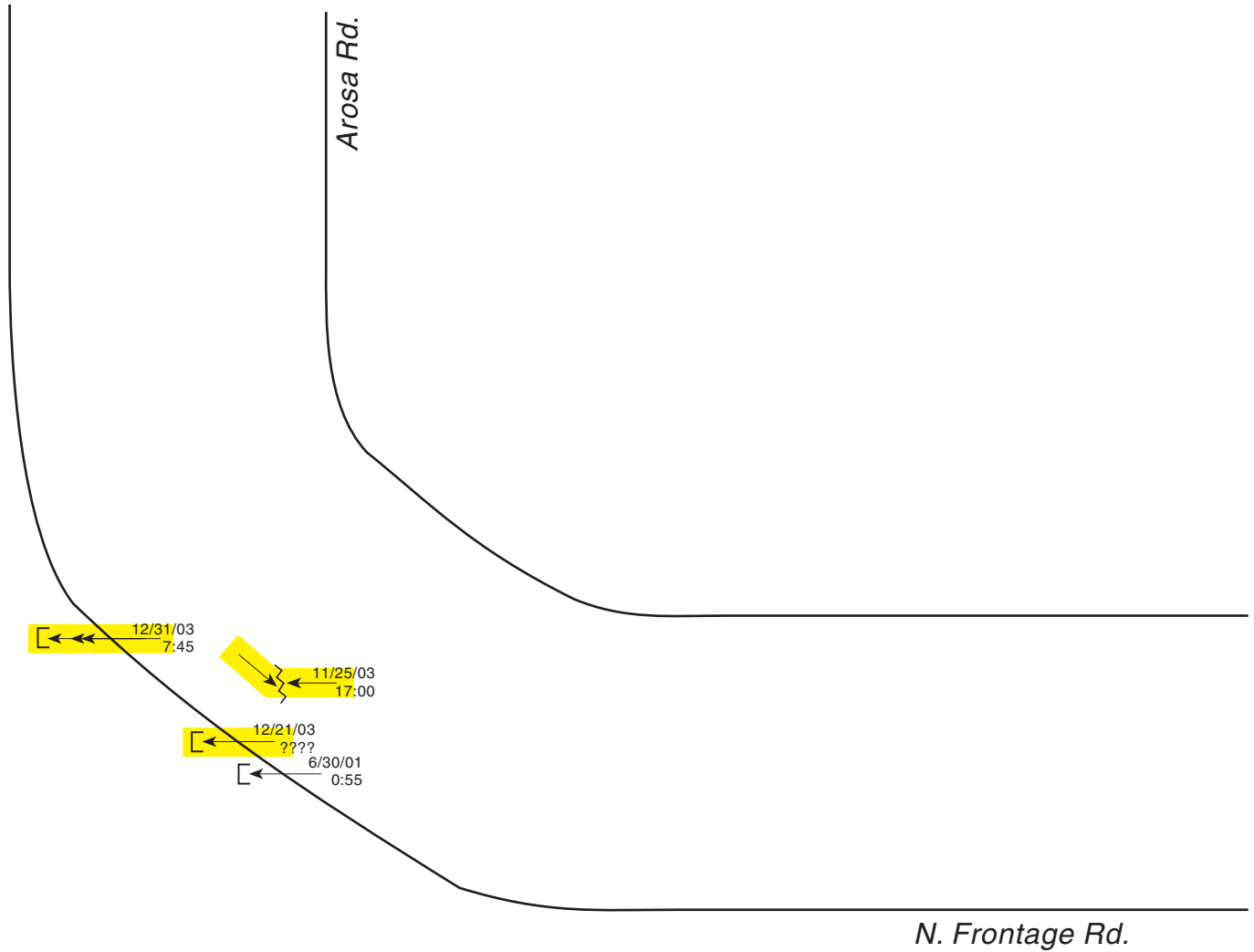


LEGEND

Collision Types:	Severity:	Other:
←← Rear End	⋯ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑← Angle	● Fatality	
□← Fixed Object	⬤ Stop Sign	
←← Overturn		
→← Head-On		
A← Animal		
P← Pedestrian		

Figure R
Collision Diagram
Bighorn / N. Frontage Road



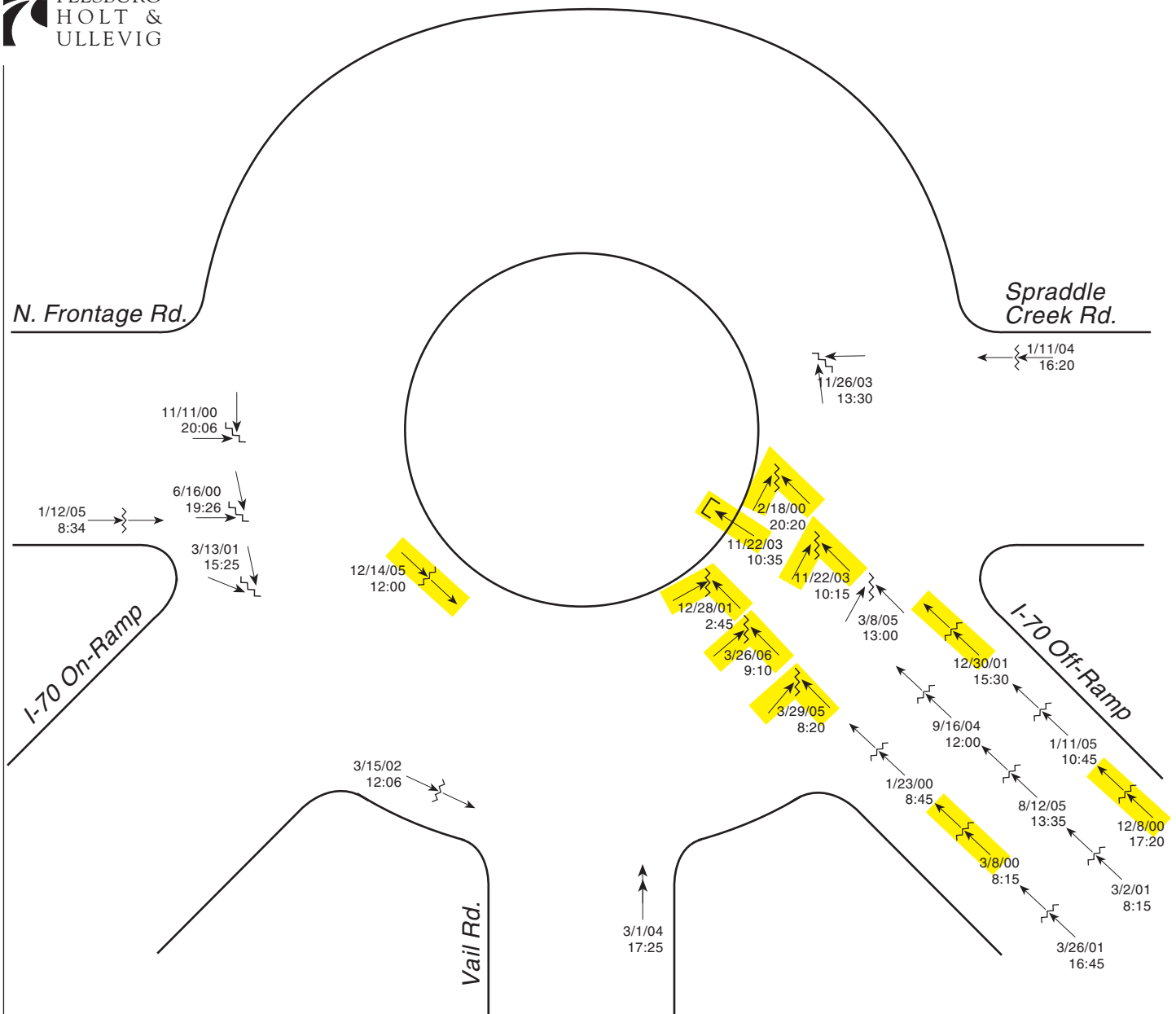


LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋯ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
☐ Fixed Object	⬮ Stop Sign	
←←← Overturn		
→→ Head-On		
A← Animal		
P← Pedestrian		

Figure S
Collision Diagram

Arosa Road / N. Frontage Road





LEGEND		
Collision Types:	Severity:	Other:
←←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↗ Angle	● Fatality	
⊠ Fixed Object	⬤ Stop Sign	
←←← Overturn		
→→→ Head-On		
A← Animal		
P← Pedestrian		

Figure T
Collision Diagram

N. Frontage Road / Main Vail Roundabout



N. Frontage Rd.



W. Lionshead Cir.



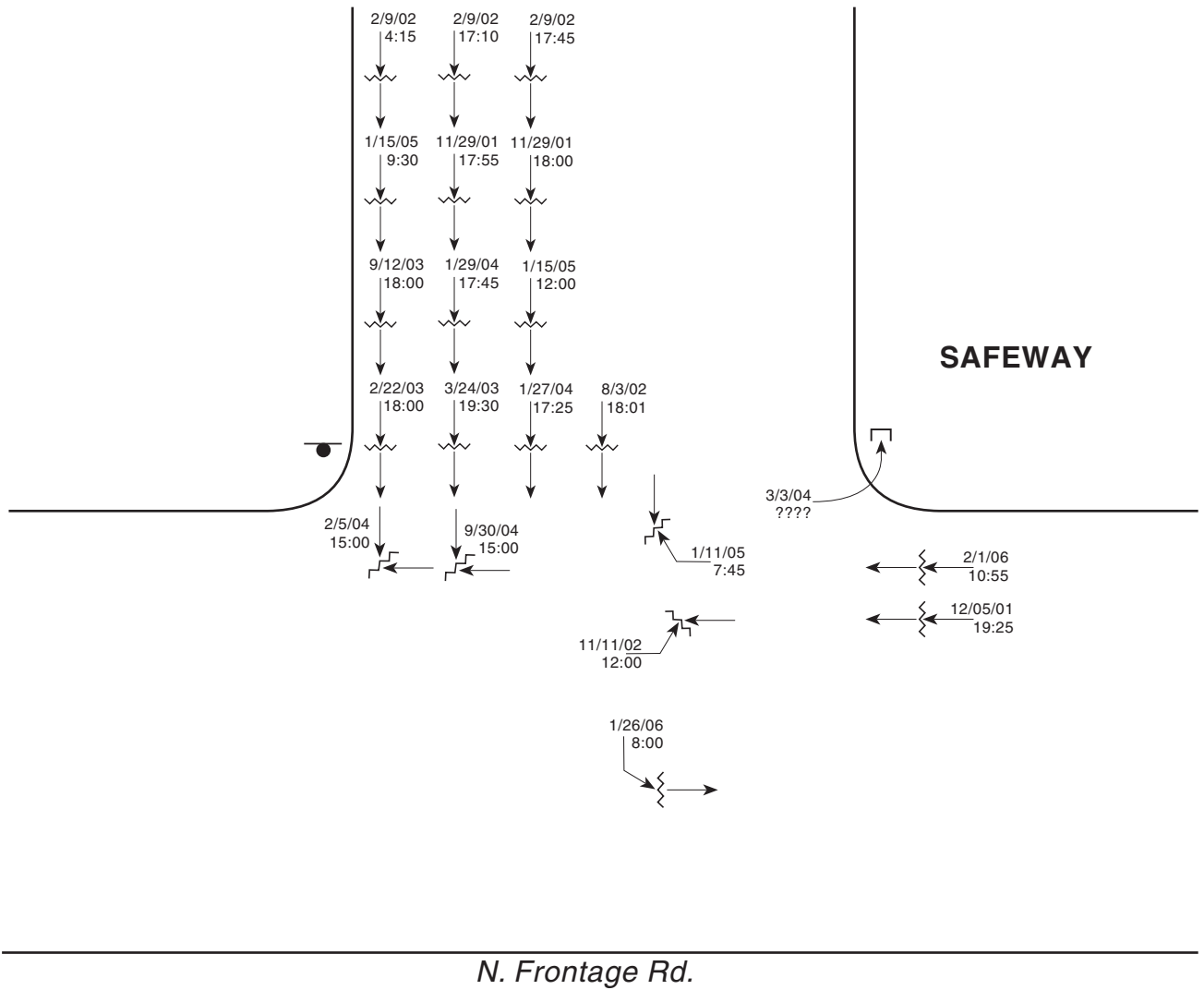
MCDONALDS

LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
[- Fixed Object	● Stop Sign	
←← Overturn		
→← Head-On		
A← Animal		
P← Pedestrian		



North

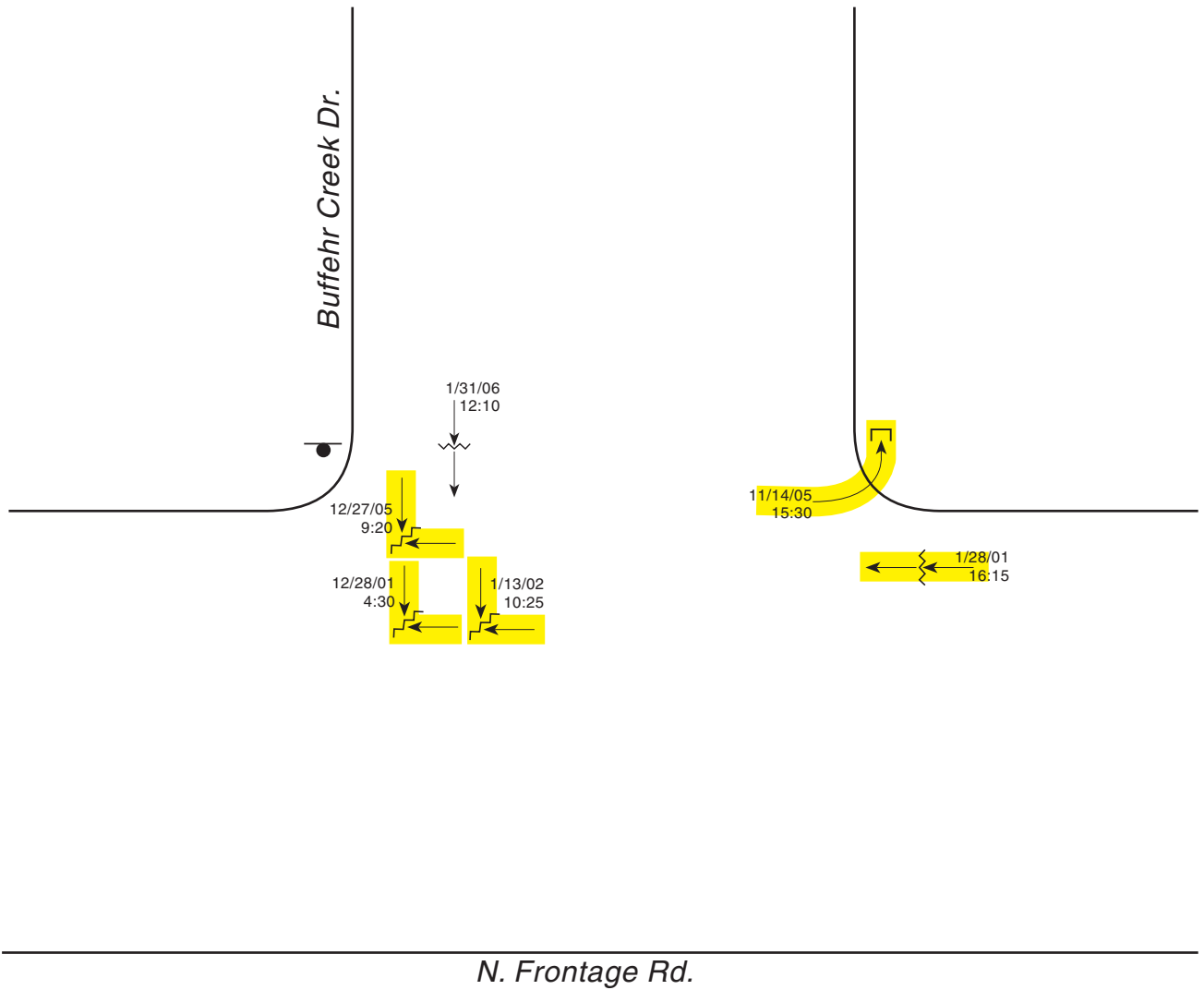
Figure U
Collision Diagram
N. Frontage Road / McDonalds



LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑ Angle	● Fatality	
□ Fixed Object	● Stop Sign	
←←← Overturn		
→↔ Head-On		
A← Animal		
P← Pedestrian		

Figure V
Collision Diagram
Safeway and N. Frontage Road





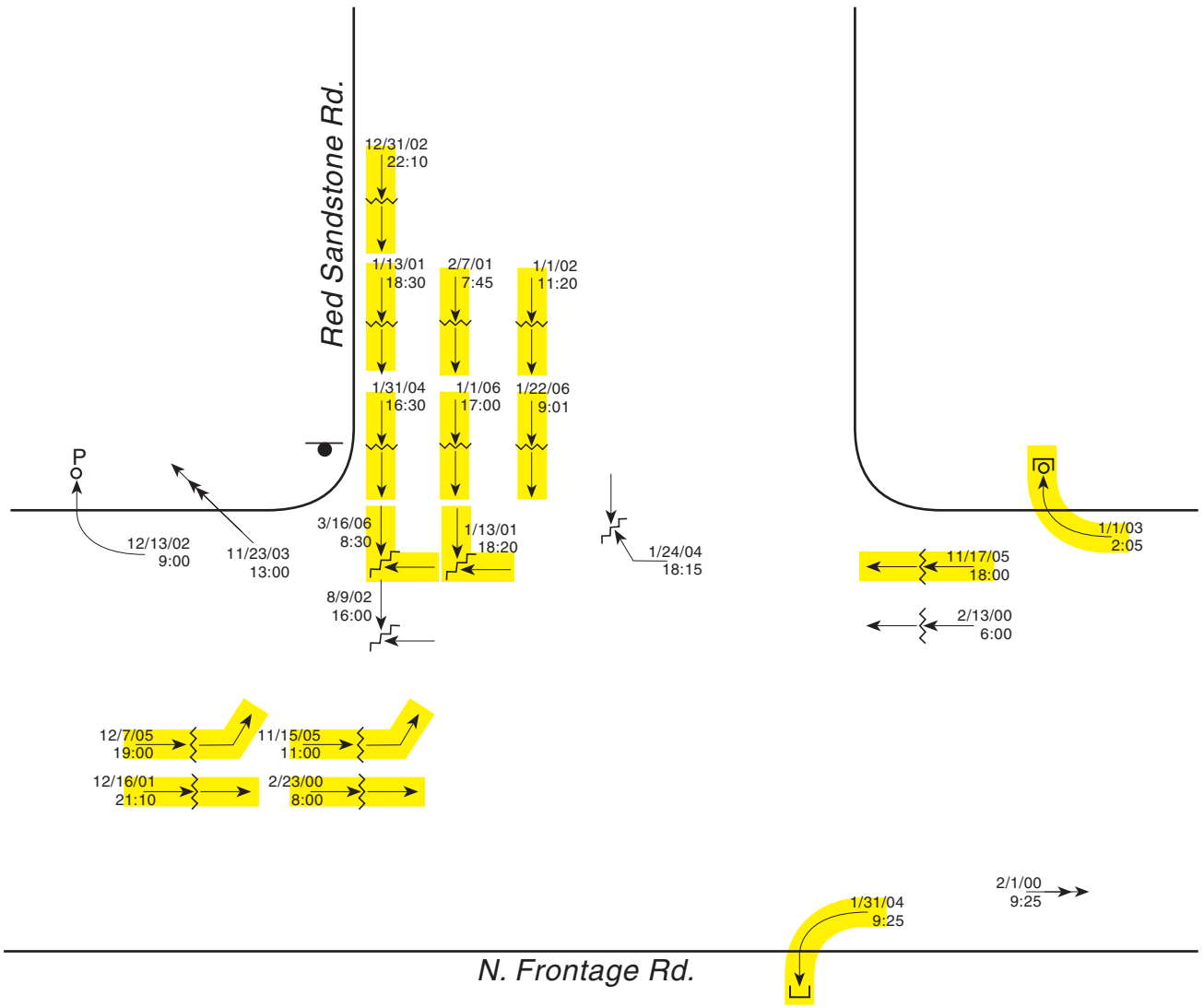
LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	~~~~ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↑← Angle	● Fatality	
□← Fixed Object	● Stop Sign	
←←← Overturn		
→← Head-On		
A← Animal		
P← Pedestrian		

Figure W
Collision Diagram

Buffehr Creek Drive and N. Frontage Road



North

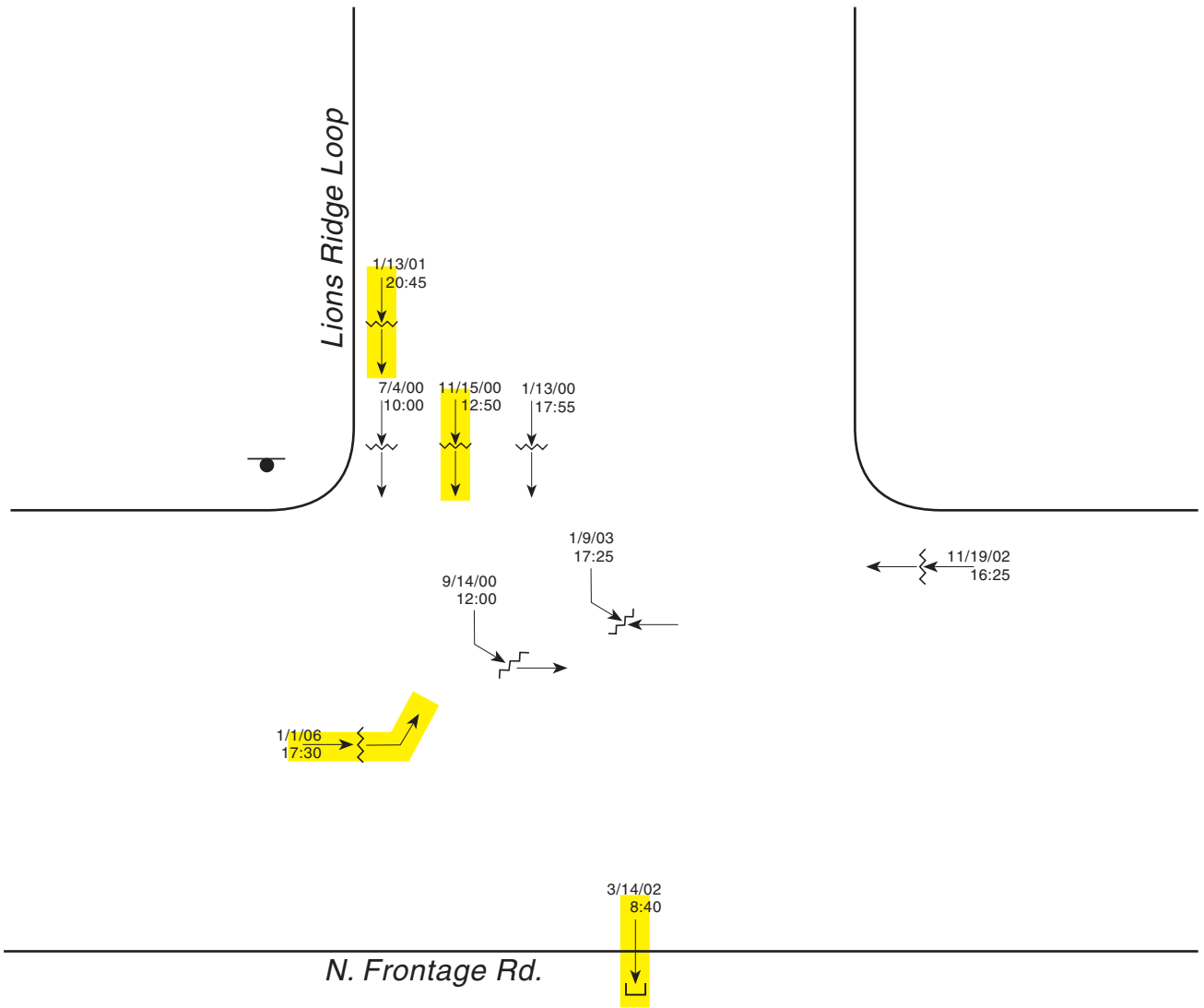


LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↗ Angle	● Fatality	
□ Fixed Object	⊖ Stop Sign	
←← Overturn		
→→ Head-On		
A← Animal		
P← Pedestrian		

Figure X
Collision Diagram

Red Sandstone Road and N. Frontage Road



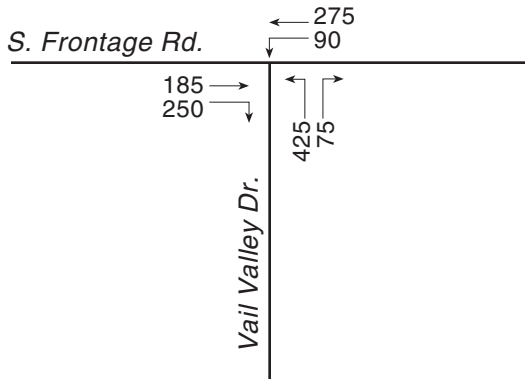


LEGEND		
Collision Types:	Severity:	Other:
←← Rear End	⋈ PDO	XX/XX/XX Month/Day/Year
↔ Sideswipe	○ Injury	█ Slick Conditions
↗ Angle	● Fatality	
⊠ Fixed Object	⬤ Stop Sign	
←←← Overturn		
→← Head-On		
A← Animal		
P← Pedestrian		

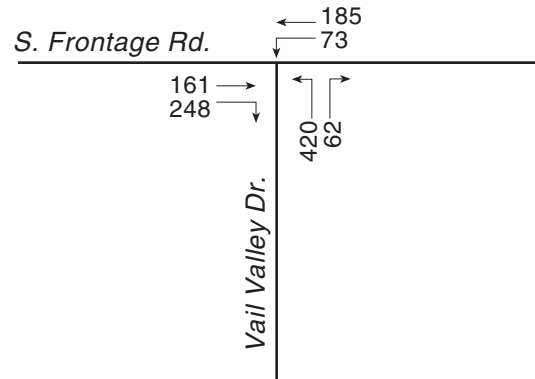
Figure Y
Collision Diagram

Lions Ridge Loop and N. Frontage Road

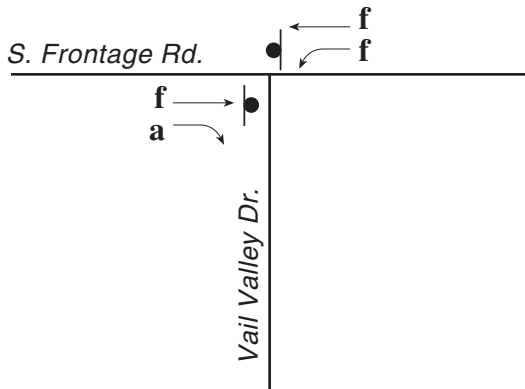




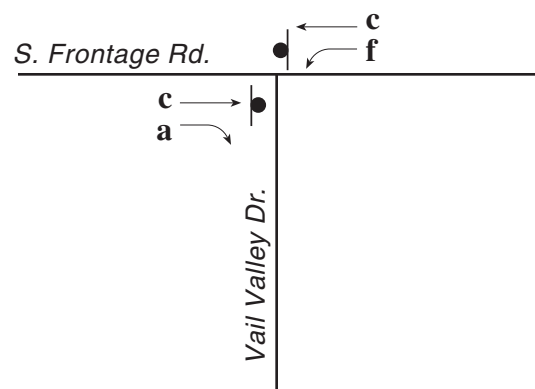
**Existing PM Peak Hour Traffic
(Used in Frontage Road Analysis)**



**March 18, 2006
PM Peak Hour Traffic**



Original Level of Service Calculations



**Modified Level of Service Calculations
Left Turn Movement Represented
as a Through Movement**

Figure Z
S. Frontage Road / Vail Valley Drive
Follow-Up Analysis



APPENDIX E

**ITE Trip Generation Estimates
Vail South Frontage Road Planning
Vail, Colorado**

11/7/2008

Land Use	Unit	Trip Rates		
		Daily	PM Peak Hour	
			In	Out
New Development				
Residential	DU	5.00	0.30	0.20
Residential Close-In	DU	4.00	0.24	0.16
Hotel	Rooms	5.00	0.30	0.20
Hotel Close-In	Rooms	4.00	0.24	0.16
Retail	KSF	15.00	0.56	0.74
Hospital	KSF	17.60	0.40	0.70
Office	KSF	11.00	0.25	1.24
Re-Development				
Residential	DU	0.75	0.05	0.03
Residential Close-In	DU	0.60	0.04	0.02
Hotel	Rooms	0.75	0.05	0.03
Hotel Close-In	Rooms	0.60	0.04	0.02

Approved Projects (Net Change)

Unit Types	Land Use Description	Size	Unit	PM Peak Hour					
				Daily TOTAL	IN	OUT	TOTAL		
14	Core Site (Arrabelle)	Residential Close-In	139	DU	556	33	22	56	50
		EHU Res Close-In	-100	DU	-400	-24	-16	-40	
		Hotel Close-In	85	Rooms	340	20	14	34	
		Retail	5,520	KSF	83	3	4	7	
		Office	-18,000	KSF	-198	-5	-22	-27	
27	North Day Lot	Hotel Close-In	90	Rooms	360	22	14	36	51
		EHU Res Close-In	37	DU	148	9	6	15	
		Office	0,000	KSF	0	0	0	0	
20	Gore Creek Condos	Residential	16	DU	80	5	3	8	
		Hotel	0	Rooms	0	0	0	0	
20	Forest Place	Residential	4	DU	20	1	1	2	
8	Four Seasons	Residential	16	DU	80	5	3	8	
		EHU Residential	28	DU	140	8	6	14	
		Time Share Res	19	DU	95	6	4	10	
		Hotel	3	Rooms	15	1	1	2	
		Hotel Re-Development	119	Rooms	89	6	4	10	
Retail	25,409	KSF	381	14	19	33			
5	Sonnenalp	Residential	8	DU	40	2	2	4	
		Residential Re-Development	2	DU	2	0	0	0	
		Time Share Res	14	DU	70	4	3	7	
		Hotel	-21	Rooms	-105	-6	-4	-11	
		Hotel Re-Development	128	Rooms	96	6	4	10	
Retail	5,475	KSF	82	3	4	7			
3	Tivoli	Residential Re-Development	2	DU	2	0	0	0	
		Hotel	11	Rooms	55	3	2	6	
		Hotel Re-Development	49	Rooms	37	2	1	4	
6	Vail's Front Door	Residential Close-In	13	DU	52	3	2	5	6
		Hotel Close-In	2	Rooms	8	0	0	1	
		Retail	17,695	KSF	265	10	13	23	
24	Vail Plaza (VVI)	Residential Close-In	-1	DU	-4	0	0	0	42
		Time Share Res Close In	50	DU	200	12	8	20	
		EHU Res Close-In	18	DU	72	4	3	7	
		Hotel Close-In	27	Rooms	108	6	4	11	
		Hotel Close-In Re-Development	72	Rooms	43	3	2	5	
Retail	24,722	KSF	371	14	18	32			
15	Antlers	Residential Close-In	24	DU	96	6	4	10	11
		Hotel Close-In	4	Rooms	16	1	1	2	
28	Vail Mountain Lodge	Residential	4	DU	20	1	1	2	
		Time Share Res	7	DU	35	2	1	4	
		Hotel	20	Rooms	100	6	4	10	
		Retail	5,000	KSF	75	3	4	7	
2	Manor Vail	Residential	18	DU	90	5	4	9	
		Residential Re-Development	123	DU	92	6	4	10	
26	Cascade	Residential	13	DU	65	4	3	7	
PROJECT TOTAL					3772	208	148	356	

Proposed Projects (Net Change)

Unit Types	Land Use Description	Size	Unit	PM Peak Hour					
				Daily TOTAL	IN	OUT	TOTAL		
1	Appollo Park	Residential	33	DU	165	10	7	17	
		Residential Re-Development	37	DU	28	2	1	3	
		Hotel	-18	Rooms	-90	-5	-4	-9	
		Retail	24,000	KSF	360	13	18	31	
2	Texas Townhomes	Residential	3	DU	15	1	1	2	
		Residential Re-Development	9	DU	7	0	0	1	
		Retail	24,000	KSF	360	13	18	31	
4	Gorsuch Building	Residential Close-In	6	DU	24	1	1	2	2
		Retail	2,324	KSF	35	1	2	3	
4	Vail Trail West	Residential Close-In	6	DU	24	1	1	2	4
		Res Close-In Re-Development	19	DU	11	1	0	1	
9	Evergreen	Residential	50	DU	250	15	10	25	
		Residential Re-Development	19	DU	14	1	1	2	
		Hotel Re-Development	128	Rooms	96	6	4	10	
		Retail	20,000	KSF	300	11	15	26	

7	Hospital	Hospital	140,000	KSF	2464	56	98	154	
10	Vail International	Residential	19	DU	95	6	4	10	
		Residential Re-Development	56	DU	42	3	2	4	
10	Lionshead Parking	Residential Close-In	125	DU	500	30	20	50	146
		Hotel Close-In	240	Rooms	960	58	38	96	
		Retail	70,000	KSF	1050	39	52	91	
		Performing Arts	20,000	KSF	300	11	15	26	
12	Lodge at Lionshead	Residential	31	DU	155	9	6	16	
		Residential Re-Development	57	DU	43	3	2	5	
		Time Share Res	17	DU	85	5	3	9	
		Hotel Re-Development	83	Rooms	62	4	2	7	
		Retail	19,041	KSF	286	11	14	25	
13	Lionshead Center	Residential Close-In	8	DU	32	2	1	3	15
		Res Close-In Re-Development	25	DU	15	1	1	2	
		Time Share Res Close-In	6	DU	24	1	1	2	
		Hotel Close-In	19	Rooms	76	5	3	8	
		Retail	10,133	KSF	152	6	7	13	
15	Lions Square North	Residential Close-In	9	DU	36	2	1	4	9
		Res Close-In Re-Development	27	DU	16	1	1	2	
		Time Share Res Close-In	7	DU	28	2	1	3	
		EHU Res Close-In	3	DU	12	1	0	1	
15	Lions Square South	Residential Close-In	34	DU	136	8	5	14	32
		Res Close-In Re-Development	102	DU	61	4	2	7	
		Time Share Res Close-In	26	DU	104	6	4	10	
		Hotel Close-In Re-Development	20	Rooms	12	1	0	1	
		Retail	7,544	KSF	113	4	6	10	
17	L'Ostello (Lionshead Inn)	Residential	41	DU	205	12	8	21	
		Residential Re-Development	13	DU	10	1	0	1	
18	Landmark	Residential Close-In	19	DU	76	5	3	8	11
		Res Close-In Re-Development	58	DU	35	2	1	4	
		Retail	7,555	KSF	113	4	6	10	
16	Ritz-Carlton	Hotel	107	Rooms	535	32	21	54	
19	Holy Cross (Evervail)	Residential	355	DU	1775	107	71	178	
		Retail	162,000	KSF	2430	91	120	211	
		Office	24,500	KSF	270	6	30	37	
		EHU Residential	90	DU	450	27	18	45	
		Hotel	151	Rooms	755	45	30	76	
19	Water District	Residential	70	DU	350	21	14	35	
		Retail							
		Office							
23	West Vail Lodge	Residential	64	DU	320	19	13	32	
		Residential Re-Development	19	DU	14	1	1	2	
		Time Share Res	178	DU	890	53	36	89	
		Hotel	4	Rooms	20	1	1	2	
		Hotel Re-Development	76	Rooms	57	4	2	6	
		Retail	33,462	KSF	502	19	25	44	
		Office	-10,450	KSF	-115	-3	-13	-16	
22	The Roost	Residential	37	DU	185	11	7	19	
		EHU Residential	3	DU	15	1	1	2	
		Hotel	52	Rooms	260	16	10	26	
		Hotel Re-Development	74	Rooms	56	4	2	6	
25	Crossroads	Residential	47	DU	235	14	9	24	
		Residential Re-Development	22	DU	17	1	1	2	
		Retail	25,399	KSF	381	14	19	33	
		Office	-14,764	KSF	-162	-4	-18	-22	
21	Timber Ridge	Residential	140	DU	700	42	28	70	
		EHU Residential	185	DU	925	56	37	93	
		EHU Res Re-Development	200	DU	150	10	6	16	
1	Wren	Residential Re-Development	66	DU	50	3	2	5	
31	Ramshorn	Residential	5	DU	25	2	1	3	
		Residential Re-Development	10	DU	8	1	0	1	
		Hotel	-7	Rooms	-35	-2	-1	-4	
		Hotel Re-Development	15	Rooms	11	1	0	1	
		Retail	4,000	KSF	60	2	3	5	
30	All Seasons	Residential	15	DU	75	5	3	8	
		Residential Re-Development	40	DU	30	2	1	3	
		Retail	15,000	KSF	225	8	11	20	
30	Chalet Road Lot	Residential	14	DU	70	4	3	7	
		Retail	5,000	KSF	75	3	4	7	
26	Cornerstar	Residential	30	DU	150	9	6	15	
33	Vail Transportation Center	Residential	45	DU	225	14	9	23	
		Retail	14,000	KSF	210	8	10	18	
		Office	30,000	KSF	330	8	37	45	
PROJECT TOTAL					21059	1016	927	1943	

w/ ITE Rates (710&820)

Unit Types	Land Use Description	Size	Unit	Daily TOTAL	PM Peak Hour		
					IN	OUT	TOTAL
29 West Vail Commercial (Gart Bros)	Residential	78	DU	390	23	16	39
	Office	25,000	KSF	275	6	31	37
	Commercial	34,328	KSF	1474	62	67	129
29 West Vail Commercial (Safeway)	Residential	80	DU	400	24	16	40
	Office	20,000	KSF	220	5	25	30
	Commercial	17,439	KSF	749	31	34	65
29 Brandess Building	Residential	10	DU	50	3	2	5
	Office	1,700	KSF	19	0	2	3
	Commercial	0,000	KSF	0	0	0	0
32 West Vail Commercial (Vail Da Schone)	Residential	42	DU	210	13	8	21
	Residential Re-Development	28	DU	21	1	1	2
	Office	15,000	KSF	165	4	19	22
	Commercial	16,003	KSF	687	29	31	60
32 Chamonix	Residential	30	DU	150	9	6	15
32 Wendy's	Residential	80	DU	400	24	16	40
	Commercial	-10,000	KSF	-429	-18	-20	-38
West Vail TOTAL				4780	217	254	471

APPENDIX F 2025 LOS CALCULATIONS



Movement Summary

N Frontage Rd Vail Rd PM 2025

Roundabout *Ideal*

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Vail Rd										
3L	L	900	5.0	0.943	9.3	LOS A	1678	0.46	0.44	22.3
8T	T	525	5.0	0.944	8.1	LOS A	1678	0.46	0.43	22.5
Approach		1425	5.0	0.944	8.9	LOS A	1678	0.46	0.44	22.4
WB I-70 Off Ramps										
1L	L	550	2.0	2.535	754.3	LOS F	3216	1.00	4.35	1.8
6T	T	180	2.2	1.241	217.4	LOS F	637	1.00	2.26	5.1
6R	R	5	16.7	1.200	219.1	LOS F	637	1.00	2.22	5.0
Approach		736	2.2	2.533	618.7	LOS F	3216	1.00	3.82	2.1
WB Spraddle Creek										
14T	T	10	9.1	0.122	91.1	LOS F	25	1.00	1.00	9.7
14R	R	5	16.7	0.122	91.5	LOS F	26	1.00	1.00	9.5
Approach		17	11.8	0.122	91.2	LOS F	26	1.00	1.00	9.6
EB I-70 Off Ramps										
15L	L	5	16.7	1.000#	31.1	LOS C	293	1.00	1.23	17.0
12T	T	415	5.1	0.961	24.7	LOS C	293	1.00	1.24	17.9
12R	R	45	2.2	0.202	20.9	LOS C	29	0.79	0.90	18.8
Approach		466	4.9	0.962	24.4	LOS C	293	0.98	1.20	18.0
All Vehicles		2644	4.2	2.535	181.9	LOS F	3216	0.70	1.52	6.0

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue



Movement Summary

S Frontage Rd Vail Rd PM 2025

Roundabout *Ideal*

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Vail Rd										
3L	L	15	6.2	0.667	38.4	LOS D	149	0.96	1.24	16.2
8T	T	305	2.0	0.664	28.8	LOS C	170	0.97	1.25	17.1
8R	R	75	2.6	0.667	27.7	LOS C	170	0.99	1.27	17.3
Approach		397	2.3	0.665	29.0	LOS C	170	0.98	1.25	17.1
WB S Frontage Rd										
1L	L	65	1.5	0.175	16.0	LOS B	23	0.71	0.90	21.2
6T	T	425	4.9	0.634	9.2	LOS A	153	0.86	1.05	22.6
6R	R	1280	4.3	0.674	1.0	LOS F#	53#	0.00	0.12	24.5
Approach		1770	4.4	0.674	3.5	LOS A	153	0.23	0.37	23.8
SB Vail Rd										
7L	L	360	3.9	0.942	25.3	LOS C	560	1.00	1.53	19.0
4T	T	185	0.8	0.944	6.2	LOS A	560	0.36	0.55	20.1
4R	R	425	21.5	0.299	6.4	LOS A	28	0.61	0.69	23.6
Approach		643	3.6	0.942	20.1	LOS B	560	0.94	1.40	19.8
EB I-70 Off Ramps										
15L	L	20	4.8	0.583	27.1	LOS C	145	0.97	1.19	18.6
12T	T	400	2.0	0.771	21.7	LOS C	266	0.98	1.26	19.2
12R	R	290	2.1	0.769	19.9	LOS B	266	0.98	1.40	19.1
Approach		711	2.1	0.770	21.1	LOS C	266	0.98	1.31	19.1
EB S Frontage Rd										
5L	L	225	4.9	0.602	18.5	LOS B	156	0.90	1.13	20.5
2T	T	945	3.7	0.962	30.0	LOS C	655	0.99	1.88	17.2
2R	R	150	2.0	0.265	7.9	LOS A	47	0.79	0.85	23.0
Approach		1320	3.7	0.963	25.5	LOS C	655	0.95	1.63	18.2
All Vehicles		5168	3.3	0.962	15.4	LOS B	655	0.65	0.99	20.1

Symbols which may appear in this table:

Following Degree of Saturation



Movement Summary

N Frontage Rd Vail Rd PM 2025

SNOW

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Vail Rd										
3L	L	1084	5.0	1.137	75.6	LOS E	7182	1.00	0.28	11.1
8T	T	633	4.9	1.137	74.5	LOS E	7182	1.00	0.28	11.1
Approach		1716	5.0	1.137	75.2	LOS E	7182	1.00	0.28	11.1
WB I-70 Off Ramps										
1L	L	675	1.9	4.493	1647.3	LOS F	5073	1.00	3.93	0.8
6T	T	217	1.8	1.497	342.5	LOS F	974	1.00	2.71	3.5
6R	R	6	14.3	1.400	344.2	LOS F	974	1.00	2.66	3.4
Approach		898	2.0	4.493	1321.8	LOS F	5073	1.00	3.63	1.0
WB Spraddle Creek										
14T	T	12	7.7	0.289	136.1	LOS F	61	1.00	1.01	7.4
14R	R	6	14.3	0.292	136.5	LOS F	63	1.00	1.01	7.2
Approach		20	10.0	0.290	136.2	LOS F	63	1.00	1.01	7.3
EB I-70 Off Ramps										
15L	L	6	14.3	1.000#	31.4	LOS C	293	1.00	1.18	17.0
12T	T	500	5.0	1.000#	27.8	LOS C	293	1.00	1.24	17.2
12R	R	54	1.9	0.783	35.7	LOS D	233	1.00	1.35	15.6
Approach		561	4.8	1.000	28.6	LOS C	293	1.00	1.25	17.1
All Vehicles		3195	4.1	4.493	417.8	LOS F	7182	1.00	1.40	3.0

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Movement Summary

S Frontage Rd Vail Rd PM 2025

SNOW

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Vail Rd										
3L	L	18	5.3	0.950	79.9	LOS E	298	1.00	1.66	11.2
8T	T	367	1.9	0.927	52.0	LOS D	298	1.00	1.44	13.2
8R	R	90	2.2	0.929	32.0	LOS C	238	1.00	1.22	16.4
Approach		477	2.1	0.928	49.3	LOS D	298	1.00	1.41	13.6
WB S Frontage Rd										
1L	L	78	2.5	0.229	16.9	LOS B	31	0.75	0.91	21.0
6T	T	512	5.1	0.831	16.6	LOS B	270	0.96	1.36	20.2
6R	R	1542	4.3	0.812	1.2	LOS F#	64#	0.00	0.11	24.4
Approach		2133	4.4	0.831	5.5	LOS A	270	0.26	0.44	23.0
SB Vail Rd										
7L	L	434	3.9	1.269	140.5	LOS F	2307	1.00	4.73	7.8
4T	T	223	0.6	1.269	45.7	LOS D	2307	0.35	1.63	7.5
4R	R	512	28.6	0.300	7.0	LOS A	29	0.66	0.74	23.4
Approach		747	3.4	1.268	121.8	LOS E	2307	0.96	4.24	8.4
EB I-70 Off Ramps										
15L	L	24	4.0	0.862	64.6	LOS E	338	1.00	1.69	12.8
12T	T	482	2.1	1.161	85.7	LOS F	1122	1.00	2.34	10.4
12R	R	349	2.0	1.159	115.0	LOS F	1122	1.00	3.33	8.2
Approach		856	2.1	1.161	97.0	LOS F	1122	1.00	2.73	9.4
EB S Frontage Rd										
5L	L	271	5.1	0.723	22.2	LOS C	221	0.95	1.26	19.6
2T	T	1139	3.8	1.159	82.9	LOS F	1610	0.99	3.50	10.5
2R	R	181	2.2	0.317	8.2	LOS A	57	0.80	0.86	22.9
Approach		1592	3.8	1.159	64.1	LOS E	1610	0.96	2.82	12.2
All Vehicles		6226	3.4	1.269	50.0	LOS D	2307	0.66	1.86	13.0

Symbols which may appear in this table:



Movement Summary

N Frontage Rd Chamonix Dr PM 2025

Roundabout *Idea!*

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Chamonix Dr										
3L	L	600	2.0	0.657	10.9	LOS B	200	0.41	0.60	22.3
8T	T	85	0.7	0.657	2.8	LOS A	200	0.41	0.32	24.3
8R	R	930	2.6	1.000#	6.8	LOS A	152	1.00	0.50	22.5
Approach		1412	2.0	1.000	8.7	LOS A	200	0.77	0.58	22.7
WB I-70 Off Ramps										
11L	L	15	6.3	0.115	16.6	LOS B	16	0.78	0.93	20.9
16T	T	70	1.4	0.115	8.3	LOS A	17	0.78	0.84	22.8
16R	R	370	1.9	0.195	2.1	LOS B#	15#	0.00	0.27	24.0
Approach		456	2.0	0.195	3.5	LOS A	17	0.15	0.38	23.6
WB N Frontage Rd										
1L	L	730	2.1	1.096	81.4	LOS F	1063	1.00	2.45	12.0
6T	T	535	2.1	0.945	40.0	LOS D	523	1.00	1.63	17.9
6R	R	60	1.7	0.952	36.2	LOS D	523	1.00	1.63	18.3
Approach		1325	2.0	1.096	62.6	LOS E	1063	1.00	2.08	14.1
SB Chamonix Dr										
7L	L	45	2.2	0.978	89.0	LOS F	315	1.00	1.70	10.3
4T	T	140	2.1	0.972	81.9	LOS F	315	1.00	1.70	10.3
4R	R	5	16.7	1.000	83.0	LOS F	315	1.00	1.68	10.1
Approach		191	2.6	0.974	83.6	LOS F	315	1.00	1.70	10.3
EB N Frontage Rd										
5L	L	5	16.7	0.162	30.5	LOS C	31	0.94	0.98	17.4
2T	T	25	3.8	0.164	23.5	LOS C	31	0.94	0.96	18.3
2R	R	100	2.0	0.204	12.7	LOS B	44	0.90	0.88	21.3
Approach		132	3.0	0.205	15.6	LOS B	44	0.91	0.90	20.4
All Vehicles		3719	2.0	1.096	30.9	LOS C	1063	0.75	1.13	17.6

Symbols which may appear in this table:

Following Degree of Saturation



Movement Summary

S Frontage Rd Chamonix Dr PM 2025

Roundabout *Ideal*

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Chamonix Dr										
3L	L	5	16.7	0.214	36.7	LOS D	38	0.92	0.97	16.2
8T	T	15	6.2	0.216	29.6	LOS C	38	0.92	0.94	16.9
8R	R	10	9.1	0.216	30.7	LOS C	38	0.92	0.83	16.6
Approach		33	9.1	0.215	31.3	LOS C	38	0.92	0.91	16.6
WB S Frontage Rd										
1L	L	5	16.7	0.154	17.8	LOS B	21	0.72	0.90	20.4
6T	T	40	2.5	0.153	10.9	LOS B	21	0.72	0.79	22.0
6R	R	945	5.0	1.594	283.2	LOS F	3263	1.00	6.36	4.1
Approach		991	4.9	1.594	270.6	LOS F	3263	0.99	6.11	4.2
SB Chamonix Dr										
7L	L	675	3.7	0.690	10.2	LOS B	237	0.38	0.57	22.5
4T	T	15	6.2	0.696	2.7	LOS A	237	0.38	0.31	24.4
4R	R	205	2.0	0.690	3.6	LOS A	237	0.38	0.37	24.0
Approach		896	3.3	0.690	8.5	LOS A	237	0.38	0.52	22.9
EB I-70 Off Ramps										
15L	L	560	2.0	1.000#	30.3	LOS C	360	0.98	1.27	17.6
12T	T	400	2.0	1.000#	24.4	LOS C	360	1.00	1.15	18.5
12R	R	5	16.7	1.000#	20.2	LOS C	360	1.00	0.85	19.0
Approach		966	2.1	1.000	27.8	LOS C	360	0.99	1.22	18.0
EB S Frontage Rd										
5L	L	115	1.7	0.858	65.7	LOS E	242	0.98	1.51	12.3
2T	T	70	1.4	0.854	59.4	LOS E	242	0.98	1.51	12.5
2R	R	5	16.7	0.857	59.6	LOS E	242	0.98	1.49	12.3
Approach		191	2.1	0.856	63.2	LOS E	242	0.98	1.51	12.3
All Vehicles		3077	3.4	1.594	102.6	LOS F	3263	0.81	2.60	9.2

Symbols which may appear in this table:

Following Degree of Saturation



Movement Summary

N Frontage Rd Chamonix Dr PM 2025

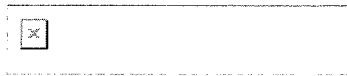
SNOW

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Chamonix Dr										
3L	L	723	1.9	0.977	14.5	LOS B	987	1.00	0.58	21.4
8T	T	102	0.3	0.976	6.3	LOS A	987	1.00	0.58	22.8
8R	R	1120	3.5	1.000#	7.5	LOS A	152	1.00	0.56	22.5
Approach		1446	2.0	1.000	13.1	LOS A	987	1.34	0.77	22.1
WB I-70 Off Ramps										
11L	L	18	5.3	0.244	23.3	LOS C	38	0.90	0.97	19.1
16T	T	84	2.4	0.245	14.4	LOS B	41	0.90	0.93	20.8
16R	R	446	2.0	0.235	2.1	LOS C#	18#	0.00	0.27	24.0
Approach		550	2.2	0.245	4.7	LOS A	41	0.17	0.39	23.1
WB N Frontage Rd										
1L	L	880	2.0	1.926	443.4	LOS F	3847	1.00	4.84	3.0
6T	T	645	2.0	1.688	336.0	LOS F	2746	1.00	4.13	3.8
6R	R	72	1.4	1.674	332.3	LOS F	2746	1.00	4.13	3.7
Approach		1597	2.0	1.926	395.0	LOS F	3847	1.00	4.52	3.3
SB Chamonix Dr										
7L	L	54	1.9	0.915	65.5	LOS E	287	0.98	1.62	12.3
4T	T	169	1.8	0.908	58.4	LOS E	287	0.98	1.61	12.4
4R	R	6	14.3	0.875	59.5	LOS E	287	0.98	1.60	12.3
Approach		229	2.2	0.909	60.1	LOS E	287	0.98	1.61	12.4
EB N Frontage Rd										
5L	L	6	14.3	0.159	28.8	LOS C	31	0.93	0.98	17.7
2T	T	30	3.2	0.160	21.7	LOS C	31	0.93	0.95	18.7
2R	R	120	1.7	0.284	13.1	LOS B	63	0.95	0.95	21.1
Approach		158	2.5	0.285	15.5	LOS B	63	0.94	0.95	20.4
All Vehicles		4478	1.8	1.926	149.3	LOS F	3847	0.90	2.03	7.1

Symbols which may appear in this table:



Movement Summary

S Frontage Rd Chamonix Dr PM 2025

SNOW

Roundabout

Vehicle Movements






















Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Chamonix Dr										
3L	L	6	14.3	0.318	57.4	LOS E	62	0.97	1.04	13.2
8T	T	18	5.3	0.322	50.3	LOS D	62	0.97	1.02	13.4
8R	R	12	7.7	0.317	51.3	LOS D	62	0.97	0.91	13.3
Approach		39	7.7	0.320	51.9	LOS D	62	0.97	0.99	13.3
WB S Frontage Rd										
1L	L	6	14.3	0.156	17.6	LOS B	22	0.70	0.89	20.5
6T	T	48	2.1	0.155	10.6	LOS B	22	0.70	0.77	22.1
6R	R	1139	5.0	1.673	320.0	LOS F	4242	1.00	6.93	3.7
Approach		1194	4.9	1.673	305.7	LOS F	4242	0.99	6.65	3.8
SB Chamonix Dr										
7L	L	813	3.7	0.839	10.7	LOS B	425	0.64	0.54	22.1
4T	T	18	5.3	0.826	3.2	LOS A	425	0.64	0.37	23.7
4R	R	247	2.0	0.840	4.1	LOS A	425	0.64	0.41	23.4
Approach		1079	3.3	0.839	9.0	LOS A	425	0.64	0.51	22.4
EB I-70 Off Ramps										
15L	L	675	1.4	2.506	503.7	LOS F	5151	0.71	4.48	2.0
12T	T	482	4.9	0.999	85.9	LOS F	360	1.00	1.70	10.3
12R	R	6	14.3	0.007	4.2	LOS A	1	0.35	0.42	24.0
Approach		884	2.1	2.508	562.1	LOS F	5151	1.00	5.22	2.4
EB S Frontage Rd										
5L	L	139	2.2	1.158	167.0	LOS F	622	1.00	2.30	6.7
2T	T	84	2.4	1.164	160.7	LOS F	622	1.00	2.30	6.5
2R	R	6	14.3	1.167	160.9	LOS F	622	1.00	2.26	6.4
Approach		231	2.6	1.159	164.5	LOS F	622	1.00	2.30	6.6
All Vehicles		3706	3.3	2.506	246.1	LOS F	5151	0.81	3.69	4.5

Symbols which may appear in this table:

HCM Unsignalized Intersection Capacity Analysis

3: S Frontage Rd & Forest Rd

12/15/2008

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	185	545	15	20	720	160	160	5	170	20	1	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	195	574	16	21	758	168	168	5	179	21	1	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage (veh)		2			2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	926			589			1869	1863	842	1945	1932	574
vC1, stage 1 conf vol							884	884		963	963	
vC2, stage 2 conf vol							985	979		982	968	
vCu, unblocked vol	926			589			1869	1863	842	1945	1932	574
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	74			98			0	97	51	0	99	96
cM capacity (veh/h)	738			986			164	188	364	19	118	518
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SE 1	SE 2	NW 1	NW 2			
Volume Total	195	574	16	21	926	168	184	21	22			
Volume Left	195	0	0	21	0	168	0	21	0			
Volume Right	0	0	16	0	168	0	179	0	21			
cSH	738	1700	1700	986	1700	164	355	19	447			
Volume to Capacity	0.26	0.34	0.01	0.02	0.54	1.03	0.52	1.10	0.05			
Queue Length 95th (ft)	26	0	0	2	0	206	71	73	4			
Control Delay (s)	11.6	0.0	0.0	8.7	0.0	135.0	25.6	524.1	13.5			
Lane LOS	B			A		F	D	F	B			
Approach Delay (s)	2.9			0.2		77.9		262.6				
Approach LOS						F		F				

Intersection Summary

Average Delay	19.4		
Intersection Capacity Utilization	84.5%	ICU Level of Service	E
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

4: W Lionshead Cir W & S Frontage Rd

12/15/2008












Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	←		↑	→	←	↘
Volume (veh/h)	130	40	570	145	35	730
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	137	42	600	153	37	768
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			TWLTL
Median storage (veh)						2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1518	676			753	
vC1, stage 1 conf vol	676					
vC2, stage 2 conf vol	842					
vCu, unblocked vol	1518	676			753	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	59	91			96	
cM capacity (veh/h)	330	453			857	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	179	753	805
Volume Left	137	0	37
Volume Right	42	153	0
cSH	353	1700	857
Volume to Capacity	0.51	0.44	0.04
Queue Length 95th (ft)	69	0	3
Control Delay (s)	25.3	0.0	1.1
Lane LOS	D		A
Approach Delay (s)	25.3	0.0	1.1
Approach LOS	D		

Intersection Summary			
Average Delay		3.1	
Intersection Capacity Utilization		83.2%	ICU Level of Service
Analysis Period (min)		15	E

HCM Unsignalized Intersection Capacity Analysis
 5: S Frontage Rd & W Lionshead Cir E

12/15/2008

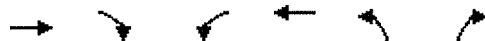
						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	515	80	190	695	70	210
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	542	84	200	732	74	221
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage (veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			626		1716	584
vC1, stage 1 conf vol					584	
vC2, stage 2 conf vol					1132	
vCu, unblocked vol			626		1716	584
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			79		67	57
cM capacity (veh/h)			955		225	511

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	626	932	295
Volume Left	0	200	74
Volume Right	84	0	221
cSH	1700	955	388
Volume to Capacity	0.37	0.21	0.76
Queue Length 95th (ft)	0	20	155
Control Delay (s)	0.0	4.9	38.4
Lane LOS		A	E
Approach Delay (s)	0.0	4.9	38.4
Approach LOS			E

Intersection Summary			
Average Delay		8.6	
Intersection Capacity Utilization		105.9%	ICU Level of Service
Analysis Period (min)		15	G

HCM Unsignalized Intersection Capacity Analysis
 6: S Frontage Rd & E Lionshead Cir

12/15/2008



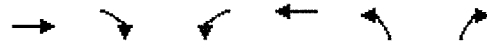
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑	↖	
Volume (veh/h)	655	95	100	770	110	105
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	689	100	105	811	116	111
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLT			TWLT		
Median storage (veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			789		1711	689
vC1, stage 1 conf vol					689	
vC2, stage 2 conf vol					1021	
vCu, unblocked vol			789		1711	689
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			87		56	75
cM capacity (veh/h)			830		264	445

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	689	100	916	226
Volume Left	0	0	105	116
Volume Right	0	100	0	111
cSH	1700	1700	830	329
Volume to Capacity	0.41	0.06	0.13	0.69
Queue Length 95th (ft)	0	0	11	120
Control Delay (s)	0.0	0.0	3.3	36.8
Lane LOS			A	E
Approach Delay (s)	0.0		3.3	36.8
Approach LOS				E

Intersection Summary				
Average Delay			5.9	
Intersection Capacity Utilization		103.1%		ICU Level of Service
Analysis Period (min)		15		G

HCM Unsignalized Intersection Capacity Analysis
 7: S Frontage Rd & Lionshead Parking

12/15/2008



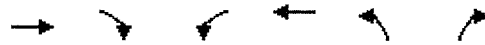
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Volume (veh/h)	660	110	250	650	205	505
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	695	116	263	684	216	532
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage (veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			811		1905	695
vC1, stage 1 conf vol					695	
vC2, stage 2 conf vol					1211	
vCu, unblocked vol			811		1905	695
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			68		0	0
cM capacity (veh/h)			815		177	442

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	695	116	947	747
Volume Left	0	0	263	216
Volume Right	0	116	0	532
cSH	1700	1700	815	309
Volume to Capacity	0.41	0.07	0.32	2.42
Queue Length 95th (ft)	0	0	35	1489
Control Delay (s)	0.0	0.0	7.7	675.6
Lane LOS			A	F
Approach Delay (s)	0.0		7.7	675.6
Approach LOS				F

Intersection Summary				
Average Delay			204.5	
Intersection Capacity Utilization			135.2%	ICU Level of Service
Analysis Period (min)			15	H

HCM Unsignalized Intersection Capacity Analysis
 10: S Frontage Rd & Village Center Rd

12/15/2008



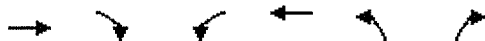
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Volume (veh/h)	955	100	55	1540	90	70
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1005	105	58	1621	95	74
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage (veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1005		1932	503
vC1, stage 1 conf vol					1005	
vC2, stage 2 conf vol					926	
vCu, unblocked vol			1005		1932	503
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			92		57	86
cM capacity (veh/h)			685		223	514

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	503	503	105	58	811	811	95	74
Volume Left	0	0	0	58	0	0	95	0
Volume Right	0	0	105	0	0	0	0	74
cSH	1700	1700	1700	685	1700	1700	223	514
Volume to Capacity	0.30	0.30	0.06	0.08	0.48	0.48	0.43	0.14
Queue Length 95th (ft)	0	0	0	7	0	0	49	12
Control Delay (s)	0.0	0.0	0.0	10.7	0.0	0.0	32.6	13.2
Lane LOS				B			D	B
Approach Delay (s)	0.0			0.4			24.1	
Approach LOS							C	

Intersection Summary								
Average Delay			1.6					
Intersection Capacity Utilization			54.2%		ICU Level of Service		A	
Analysis Period (min)			15					

HCM Unsignalized Intersection Capacity Analysis
 11: S Frontage Rd & Vail Village Parking (Lower)

12/15/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑	↑↑	↑↑
Volume (veh/h)	570	370	55	910	540	105
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	600	389	58	958	568	111
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage (veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			989		1674	300
vC1, stage 1 conf vol					600	
vC2, stage 2 conf vol					1074	
vCu, unblocked vol			989		1674	300
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			92		0	84
cM capacity (veh/h)			694		238	696

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4
Volume Total	300	300	389	58	958	284	284	55	55
Volume Left	0	0	0	58	0	284	284	0	0
Volume Right	0	0	389	0	0	0	0	55	55
cSH	1700	1700	1700	694	1700	238	238	696	696
Volume to Capacity	0.18	0.18	0.23	0.08	0.56	1.19	1.19	0.08	0.08
Queue Length 95th (ft)	0	0	0	7	0	340	340	6	6
Control Delay (s)	0.0	0.0	0.0	10.7	0.0	163.8	163.8	10.6	10.6
Lane LOS				B		F	F	B	B
Approach Delay (s)	0.0			0.6		138.9			
Approach LOS						F			

Intersection Summary									
Average Delay			35.4						
Intersection Capacity Utilization			70.0%		ICU Level of Service				C
Analysis Period (min)			15						

HCM Unsignalized Intersection Capacity Analysis
 12: S Frontage Rd & Vail Valley Drive West

12/15/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	305	315	80	335	0	0	480	70	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	321	332	84	353	0	0	505	74	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	718	579	0	703	542	542	0			579		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	718	579	0	703	542	542	0			579		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	25	69	10	21	100	100			100		
cM capacity (veh/h)	120	426	1085	94	447	540	1623			995		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1							
Volume Total	321	332	84	353	579							
Volume Left	0	0	84	0	0							
Volume Right	0	332	0	0	74							
cSH	426	1085	94	447	1700							
Volume to Capacity	0.75	0.31	0.90	0.79	0.34							
Queue Length 95th (ft)	155	33	127	175	0							
Control Delay (s)	35.0	9.8	147.6	37.0	0.0							
Lane LOS	E	A	F	E								
Approach Delay (s)	22.2		58.3		0.0							
Approach LOS	C		F									

Intersection Summary

Average Delay		23.9			
Intersection Capacity Utilization		60.0%		ICU Level of Service	B
Analysis Period (min)		15			

HCM Unsignalized Intersection Capacity Analysis
 13: S Frontage Rd & Ford Park

12/15/2008

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↕	↕
Volume (veh/h)	300	90	5	375	140	15
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	316	95	5	395	147	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			411		768	363
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			411		768	363
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		60	98
cM capacity (veh/h)			1148		368	682




















Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	411	400	163
Volume Left	0	5	147
Volume Right	95	0	16
cSH	1700	1148	385
Volume to Capacity	0.24	0.00	0.42
Queue Length 95th (ft)	0	0	51
Control Delay (s)	0.0	0.2	21.0
Lane LOS		A	C
Approach Delay (s)	0.0	0.2	21.0
Approach LOS			C

Intersection Summary			
Average Delay		3.6	
Intersection Capacity Utilization		39.1%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

14: S Frontage Rd & Vail Valley Rd E

12/15/2008

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	175	125	35	265	20	75	1	30	20	1	25
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	16	184	132	37	279	21	79	1	32	21	1	26
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	300			316			606	589	184	611	711	289
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	300			316			606	589	184	611	711	289
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			97			79	100	96	94	100	96
cM capacity (veh/h)	1261			1244			381	403	858	378	343	750
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1						
Volume Total	200	132	337	80	32	48						
Volume Left	16	0	37	79	0	21						
Volume Right	0	132	21	0	32	26						
cSH	1261	1700	1244	382	858	516						
Volume to Capacity	0.01	0.08	0.03	0.21	0.04	0.09						
Queue Length 95th (ft)	1	0	2	19	3	8						
Control Delay (s)	0.7	0.0	1.1	16.9	9.4	12.7						
Lane LOS	A		A	C	A	B						
Approach Delay (s)	0.4		1.1	14.8		12.7						
Approach LOS				B		B						

Intersection Summary

Average Delay		3.4				
Intersection Capacity Utilization		46.5%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis
 15: S Frontage Rd & Westhaven Dr

12/15/2008












Movement	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	705	55	50	60	45	930
Sign Control	Free		Stop		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	742	58	53	63	47	979
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL				TWLTL	
Median storage (veh)	2				2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1816	742	800	
vC1, stage 1 conf vol			742			
vC2, stage 2 conf vol			1074			
vCu, unblocked vol			1816	742	800	
tC, single (s)			6.4	6.2	4.1	
tC, 2 stage (s)			5.4			
tF (s)			3.5	3.3	2.2	
p0 queue free %			80	85	94	
cM capacity (veh/h)			262	416	823	

Direction, Lane #	EB 1	EB 2	NB 1	SW 1	SW 2
Volume Total	742	58	116	47	979
Volume Left	0	0	53	47	0
Volume Right	0	58	63	0	0
cSH	1700	1700	328	823	1700
Volume to Capacity	0.44	0.03	0.35	0.06	0.58
Queue Length 95th (ft)	0	0	39	5	0
Control Delay (s)	0.0	0.0	21.8	9.6	0.0
Lane LOS			C	A	
Approach Delay (s)	0.0		21.8	0.4	
Approach LOS			C		

Intersection Summary					
Average Delay			1.5		
Intersection Capacity Utilization			60.9%	ICU Level of Service	B
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
 16: S Frontage Rd & Matterhorn Cir

12/15/2008










						
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	735	80	70	900	70	35
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	774	84	74	947	74	37
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage (veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			858		1911	816
vC1, stage 1 conf vol					816	
vC2, stage 2 conf vol					1095	
vCu, unblocked vol			858		1911	816
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			91		70	90
cM capacity (veh/h)			783		243	377

Direction, Lane #	EB 1	WB 1	NW 1
Volume Total	858	1021	111
Volume Left	0	74	74
Volume Right	84	0	37
cSH	1700	783	276
Volume to Capacity	0.50	0.09	0.40
Queue Length 95th (ft)	0	8	46
Control Delay (s)	0.0	2.7	26.5
Lane LOS		A	D
Approach Delay (s)	0.0	2.7	26.5
Approach LOS			D

Intersection Summary			
Average Delay		2.9	
Intersection Capacity Utilization		110.8%	ICU Level of Service
Analysis Period (min)		15	H

HCM Unsignalized Intersection Capacity Analysis
 17: S Frontage Rd & W Gore Creek Dr

12/15/2008

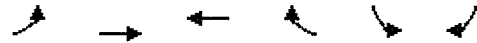
						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	810	35	10	970	30	15
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	853	37	11	1021	32	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage (veh)				2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			889		1913	871
vC1, stage 1 conf vol					871	
vC2, stage 2 conf vol					1042	
vCu, unblocked vol			889		1913	871
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			99		88	95
cM capacity (veh/h)			762		262	350

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	889	1032	47
Volume Left	0	11	32
Volume Right	37	0	16
cSH	1700	762	286
Volume to Capacity	0.52	0.01	0.17
Queue Length 95th (ft)	0	1	15
Control Delay (s)	0.0	0.4	20.1
Lane LOS		A	C
Approach Delay (s)	0.0	0.4	20.1
Approach LOS			C

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization		69.0%	ICU Level of Service
Analysis Period (min)		15	C

HCM Unsignalized Intersection Capacity Analysis
 18: N Frontage Rd & W Drive

12/15/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	195	1035	1020	30	25	105
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	205	1089	1074	32	26	111
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage (veh)		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1105				2574	1074
vC1, stage 1 conf vol					1074	
vC2, stage 2 conf vol					1500	
vCu, unblocked vol	1105				2574	1074
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	68				79	59
cM capacity (veh/h)	632				123	267

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	205	1089	1074	32	137
Volume Left	205	0	0	0	26
Volume Right	0	0	0	32	111
cSH	632	1700	1700	1700	218
Volume to Capacity	0.32	0.64	0.63	0.02	0.63
Queue Length 95th (ft)	35	0	0	0	92
Control Delay (s)	13.4	0.0	0.0	0.0	45.7
Lane LOS	B				E
Approach Delay (s)	2.1		0.0		45.7
Approach LOS					E

Intersection Summary					
Average Delay			3.6		
Intersection Capacity Utilization			82.3%	ICU Level of Service	E
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
 19: N Frontage Rd & Safeway

12/15/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	250	795	765	125	95	270
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	263	837	805	132	100	284
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage (veh)		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	937				2168	805
vC1, stage 1 conf vol					805	
vC2, stage 2 conf vol					1363	
vCu, unblocked vol	937				2168	805
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	64				29	26
cM capacity (veh/h)	731				141	382

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	263	837	805	132	100	284
Volume Left	263	0	0	0	100	0
Volume Right	0	0	0	132	0	284
cSH	731	1700	1700	1700	141	382
Volume to Capacity	0.36	0.49	0.47	0.08	0.71	0.74
Queue Length 95th (ft)	41	0	0	0	102	147
Control Delay (s)	12.7	0.0	0.0	0.0	76.2	37.2
Lane LOS	B				F	E
Approach Delay (s)	3.0		0.0		47.3	
Approach LOS					E	

Intersection Summary						
Average Delay			8.9			
Intersection Capacity Utilization			69.4%	ICU Level of Service		C
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 20: N Frontage Rd & E Drive

12/15/2008



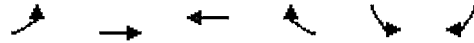
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	115	730	695	45	65	100
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	121	768	732	47	68	105
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage (veh)		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	779				1742	732
vC1, stage 1 conf vol					732	
vC2, stage 2 conf vol					1011	
vCu, unblocked vol	779				1742	732
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	86				74	75
cM capacity (veh/h)	838				258	421

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	121	768	732	47	174
Volume Left	121	0	0	0	68
Volume Right	0	0	0	47	105
cSH	838	1700	1700	1700	337
Volume to Capacity	0.14	0.45	0.43	0.03	0.51
Queue Length 95th (ft)	13	0	0	0	70
Control Delay (s)	10.0	0.0	0.0	0.0	26.5
Lane LOS	B				D
Approach Delay (s)	1.4		0.0		26.5
Approach LOS					D

Intersection Summary					
Average Delay			3.2		
Intersection Capacity Utilization			62.7%	ICU Level of Service	B
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
 21: N Frontage Rd & City Market

12/15/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↑	↗	↘	
Volume (veh/h)	115	645	575	70	70	140
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	121	679	605	74	74	147
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage (veh)		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	679				1526	605
vC1, stage 1 conf vol					605	
vC2, stage 2 conf vol					921	
vCu, unblocked vol	679				1526	605
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	87				75	70
cM capacity (veh/h)	913				296	497

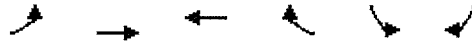
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	121	679	605	74	221
Volume Left	121	0	0	0	74
Volume Right	0	0	0	74	147
cSH	913	1700	1700	1700	405
Volume to Capacity	0.13	0.40	0.36	0.04	0.55
Queue Length 95th (ft)	11	0	0	0	79
Control Delay (s)	9.5	0.0	0.0	0.0	24.0
Lane LOS	A				C
Approach Delay (s)	1.4		0.0		24.0
Approach LOS					C

Intersection Summary					
Average Delay			3.8		
Intersection Capacity Utilization			59.1%	ICU Level of Service	B
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis

22: N Frontage Rd & Buffehr Creek Rd

12/15/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		←	←		←	
Volume (veh/h)	70	610	525	30	20	45
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	74	642	553	32	21	47
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	None			
Median storage (veh)		2				
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	584				1358	568
vC1, stage 1 conf vol					568	
vC2, stage 2 conf vol					789	
vCu, unblocked vol	584				1358	568
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	93				94	91
cM capacity (veh/h)	990				354	522

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	716	584	68
Volume Left	74	0	21
Volume Right	0	32	47
cSH	990	1700	455
Volume to Capacity	0.07	0.34	0.15
Queue Length 95th (ft)	6	0	13
Control Delay (s)	1.9	0.0	14.3
Lane LOS	A		B
Approach Delay (s)	1.9	0.0	14.3
Approach LOS			B

Intersection Summary			
Average Delay		1.7	
Intersection Capacity Utilization		79.3%	ICU Level of Service
Analysis Period (min)		15	D

HCM Unsignalized Intersection Capacity Analysis
 23: N Frontage Rd & Lions Ridge Loop

12/15/2008



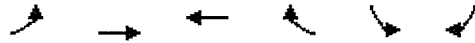
Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		←	→		↘	↙
Volume (veh/h)	30	515	520	35	35	40
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	32	542	547	37	37	42
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	584				1171	566
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	584				1171	566
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				82	92
cM capacity (veh/h)	990				206	524

Direction, Lane #	EB 1	WB 1	SE 1
Volume Total	574	584	79
Volume Left	32	0	37
Volume Right	0	37	42
cSH	990	1700	305
Volume to Capacity	0.03	0.34	0.26
Queue Length 95th (ft)	2	0	25
Control Delay (s)	0.9	0.0	20.9
Lane LOS	A		C
Approach Delay (s)	0.9	0.0	20.9
Approach LOS			C

Intersection Summary			
Average Delay		1.7	
Intersection Capacity Utilization		62.7%	ICU Level of Service
Analysis Period (min)		15	B

HCM Unsignalized Intersection Capacity Analysis
 24: N Frontage Rd & Red Sandstone Rd

12/15/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Volume (veh/h)	50	485	575	85	30	60
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	53	511	605	89	32	63
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	695				1266	650
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	695				1266	650
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				82	87
cM capacity (veh/h)	901				176	469

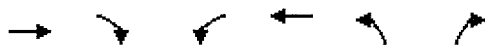
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	563	695	95
Volume Left	53	0	32
Volume Right	0	89	63
cSH	901	1700	301
Volume to Capacity	0.06	0.41	0.31
Queue Length 95th (ft)	5	0	33
Control Delay (s)	1.6	0.0	22.3
Lane LOS	A		C
Approach Delay (s)	1.6	0.0	22.3
Approach LOS			C

Intersection Summary			
Average Delay		2.2	
Intersection Capacity Utilization		79.1%	ICU Level of Service
Analysis Period (min)		15	D

**APPENDIX G 2025 LOS CALCULATIONS WITH
RECOMMENDED PLAN**

HCM Unsignalized Intersection Capacity Analysis
 5: S Frontage Rd & W Lionshead Cir E

05-168
 5/12/2009



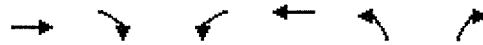
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Volume (veh/h)	635	85	165	795	80	200
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	668	89	174	837	84	211
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLT			TWLT		
Median storage (veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			758		1853	668
vC1, stage 1 conf vol					668	
vC2, stage 2 conf vol					1184	
vCu, unblocked vol			758		1853	668
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			80		60	54
cM capacity (veh/h)			853		211	458

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	668	89	174	837	84	211
Volume Left	0	0	174	0	84	0
Volume Right	0	89	0	0	0	211
cSH	1700	1700	853	1700	211	458
Volume to Capacity	0.39	0.05	0.20	0.49	0.40	0.46
Queue Length 95th (ft)	0	0	19	0	45	59
Control Delay (s)	0.0	0.0	10.3	0.0	33.0	19.4
Lane LOS			B		D	C
Approach Delay (s)	0.0		1.8		23.3	
Approach LOS					C	

Intersection Summary						
Average Delay			4.2			
Intersection Capacity Utilization			57.0%		ICU Level of Service	B
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 7: S Frontage Rd & Lionshead Parking

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 5/18/2009



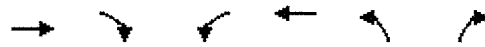
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Volume (veh/h)	735	130	100	840	210	485
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	774	137	105	884	221	511
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			911		1868	774
vC1, stage 1 conf vol					774	
vC2, stage 2 conf vol					1095	
vCu, unblocked vol			911		1868	774
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			86		7	0
cM capacity (veh/h)			748		237	399

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	774	137	105	884	221	511
Volume Left	0	0	105	0	221	0
Volume Right	0	137	0	0	0	511
cSH	1700	1700	748	1700	237	399
Volume to Capacity	0.46	0.08	0.14	0.52	0.93	1.28
Queue Length 95th (ft)	0	0	12	0	204	562
Control Delay (s)	0.0	0.0	10.6	0.0	86.2	173.1
Lane LOS			B		F	F
Approach Delay (s)	0.0		1.1		146.8	
Approach LOS					F	

Intersection Summary						
Average Delay			41.2			
Intersection Capacity Utilization			75.4%	ICU Level of Service		D
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 10: S Frontage Rd & Village Center Rd

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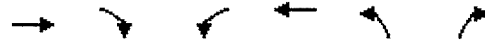
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↖	↗
Volume (veh/h)	955	100	55	1540	90	70
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1005	105	58	1621	95	74
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLT			TWLT		
Median storage (veh)	2			2		
Upstream signal (ft)				576		
pX, platoon unblocked						
vC, conflicting volume			1005		1932	503
vC1, stage 1 conf vol					1005	
vC2, stage 2 conf vol					926	
vCu, unblocked vol			1005		1932	503
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			92		57	86
cM capacity (veh/h)			685		223	514

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	503	503	105	58	811	811	95	74
Volume Left	0	0	0	58	0	0	95	0
Volume Right	0	0	105	0	0	0	0	74
cSH	1700	1700	1700	685	1700	1700	223	514
Volume to Capacity	0.30	0.30	0.06	0.08	0.48	0.48	0.43	0.14
Queue Length 95th (ft)	0	0	0	7	0	0	49	12
Control Delay (s)	0.0	0.0	0.0	10.7	0.0	0.0	32.6	13.2
Lane LOS				B			D	B
Approach Delay (s)	0.0			0.4			24.1	
Approach LOS							C	

Intersection Summary								
Average Delay			1.6					
Intersection Capacity Utilization			54.2%		ICU Level of Service		A	
Analysis Period (min)			15					

HCM Unsignalized Intersection Capacity Analysis
 11: S Frontage Rd & Vail Village Parking (Lower)

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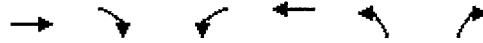
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑	↑↑	↑↑
Volume (veh/h)	570	370	55	905	540	105
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	600	389	58	953	568	111
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage (veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			989		1668	300
vC1, stage 1 conf vol					600	
vC2, stage 2 conf vol					1068	
vCu, unblocked vol			989		1668	300
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			92		0	84
cM capacity (veh/h)			694		239	696

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4
Volume Total	300	300	389	58	953	284	284	55	55
Volume Left	0	0	0	58	0	284	284	0	0
Volume Right	0	0	389	0	0	0	0	55	55
cSH	1700	1700	1700	694	1700	239	239	696	696
Volume to Capacity	0.18	0.18	0.23	0.08	0.56	1.19	1.19	0.08	0.08
Queue Length 95th (ft)	0	0	0	7	0	337	337	6	6
Control Delay (s)	0.0	0.0	0.0	10.7	0.0	161.2	161.2	10.6	10.6
Lane LOS				B		F	F	B	B
Approach Delay (s)	0.0			0.6		136.6			
Approach LOS						F			

Intersection Summary	
Average Delay	34.9
Intersection Capacity Utilization	69.7%
ICU Level of Service	C
Analysis Period (min)	15

Lanes, Volumes, Timings
11: S Frontage Rd & Vail Village Parking (Lower)

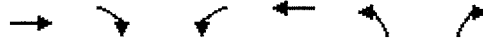
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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑	↘	↙
Volume (vph)	570	370	55	905	540	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	1.00	1.00	1.00	0.97	0.88
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	1863	3433	2787
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	1770	1863	3433	2787
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		389				111
Link Speed (mph)	30			30	30	
Link Distance (ft)	576			649	178	
Travel Time (s)	13.1			14.8	4.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	600	389	58	953	568	111
Shared Lane Traffic (%)						
Lane Group Flow (vph)	600	389	58	953	568	111
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	1	1	1	1	1	1
Detector Template						
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	50	50	50	50	50	50
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type		Perm	Prot			Prot
Protected Phases	4		3	8	2	2
Permitted Phases		4				
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	9.0	21.0	21.0	21.0
Total Split (s)	28.0	28.0	11.0	39.0	21.0	21.0
Total Split (%)	46.7%	46.7%	18.3%	65.0%	35.0%	35.0%
Maximum Green (s)	23.0	23.0	6.0	34.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0

Lanes, Volumes, Timings
 11: S Frontage Rd & Vail Village Parking (Lower)

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	24.9	24.9	5.9	31.0	13.9	13.9
Actuated g/C Ratio	0.45	0.45	0.10	0.56	0.25	0.25
v/c Ratio	0.37	0.42	0.33	0.91	0.66	0.14
Control Delay	12.6	3.3	30.8	26.4	23.1	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.6	3.3	30.8	26.4	23.1	4.9
LOS	B	A	C	C	C	A
Approach Delay	8.9			26.7	20.1	
Approach LOS	A			C	C	

Intersection Summary


















Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 55.1
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 18.5
 Intersection Capacity Utilization 71.4%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 11: S Frontage Rd & Vail Village Parking (Lower)

21 s	11 s	28 s
	39 s	

HCM Unsignalized Intersection Capacity Analysis
 12: S Frontage Rd & Vail Valley Rd W

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 5/12/2009

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	305	315	80	815	0	0	0	70	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	321	332	84	858	0	0	0	74	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			None							
Median storage (veh)		2										
Upstream signal (ft)		649										
pX, platoon unblocked				0.95			0.95	0.95	0.95	0.95	0.95	
vC, conflicting volume	858			321			1347	1347	321	1421	1347	858
vC1, stage 1 conf vol							321	321		1026	1026	
vC2, stage 2 conf vol							1026	1026		395	321	
vCu, unblocked vol	858			254			1339	1339	254	1417	1339	858
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			93			100	100	90	100	100	100
cM capacity (veh/h)	783			1241			251	274	743	239	271	357

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	321	332	84	858	74
Volume Left	0	0	84	0	0
Volume Right	0	332	0	0	74
cSH	1700	1700	1241	1700	743
Volume to Capacity	0.19	0.20	0.07	0.50	0.10
Queue Length 95th (ft)	0	0	5	0	8
Control Delay (s)	0.0	0.0	8.1	0.0	10.4
Lane LOS			A		B
Approach Delay (s)	0.0		0.7		10.4
Approach LOS					B

Intersection Summary		
Average Delay		0.9
Intersection Capacity Utilization	46.2%	ICU Level of Service
Analysis Period (min)		15
		A

HCM Unsignalized Intersection Capacity Analysis
 15: S Frontage Rd & Westhaven Dr

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 5/12/2009



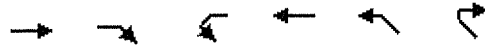
Movement	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	560	55	30	75	45	690
Sign Control	Free		Stop		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	589	58	32	79	47	726
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL				TWLTL	
Median storage veh	2				2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1411	589	647	
vC1, stage 1 conf vol			589			
vC2, stage 2 conf vol			821			
vCu, unblocked vol			1411	589	647	
tC, single (s)			6.4	6.2	4.1	
tC, 2 stage (s)			5.4			
tF (s)			3.5	3.3	2.2	
p0 queue free %			91	84	95	
cM capacity (veh/h)			348	508	938	

Direction, Lane #	EB 1	EB 2	NB 1	SW 1	SW 2
Volume Total	589	58	111	47	726
Volume Left	0	0	32	47	0
Volume Right	0	58	79	0	0
cSH	1700	1700	449	938	1700
Volume to Capacity	0.35	0.03	0.25	0.05	0.43
Queue Length 95th (ft)	0	0	24	4	0
Control Delay (s)	0.0	0.0	15.6	9.0	0.0
Lane LOS			C	A	
Approach Delay (s)	0.0		15.6	0.6	
Approach LOS			C		

Intersection Summary					
Average Delay			1.4		
Intersection Capacity Utilization			50.6%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
 16: S Frontage Rd & Matterhorn Cir

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 5/12/2009














Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑	↗	↖	↑	↖	
Volume (veh/h)	570	85	75	670	55	45
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	600	89	79	705	58	47
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage (veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			689		1463	600
vC1, stage 1 conf vol					600	
vC2, stage 2 conf vol					863	
vCu, unblocked vol			689		1463	600
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			91		82	91
cM capacity (veh/h)			905		324	501

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NW 1
Volume Total	600	89	79	705	105
Volume Left	0	0	79	0	58
Volume Right	0	89	0	0	47
cSH	1700	1700	905	1700	386
Volume to Capacity	0.35	0.05	0.09	0.41	0.27
Queue Length 95th (ft)	0	0	7	0	27
Control Delay (s)	0.0	0.0	9.4	0.0	17.8
Lane LOS			A		C
Approach Delay (s)	0.0		0.9		17.8
Approach LOS					C

Intersection Summary					
Average Delay			1.7		
Intersection Capacity Utilization			50.0%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
 17: S Frontage Rd & W Gore Creek Dr

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 5/12/2009

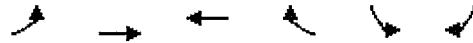
						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	625	40	10	725	20	25
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	658	42	11	763	21	26
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage (veh)				2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			700		1463	679
vC1, stage 1 conf vol					679	
vC2, stage 2 conf vol					784	
vCu, unblocked vol			700		1463	679
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			99		94	94
cM capacity (veh/h)			897		352	452

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	700	11	763	47
Volume Left	0	11	0	21
Volume Right	42	0	0	26
cSH	1700	897	1700	401
Volume to Capacity	0.41	0.01	0.45	0.12
Queue Length 95th (ft)	0	1	0	10
Control Delay (s)	0.0	9.1	0.0	15.2
Lane LOS		A		C
Approach Delay (s)	0.0	0.1		15.2
Approach LOS				C

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		48.2%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis
 18: N Frontage Rd & W Drive

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 5/12/2009



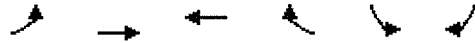
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↑		↑
Volume (veh/h)	0	1020	960	65	0	95
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	1074	1011	68	0	100
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLT	TL			
Median storage (veh)		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1079				2084	1011
vC1, stage 1 conf vol					1011	
vC2, stage 2 conf vol					1074	
vCu, unblocked vol	1079				2084	1011
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	66
cM capacity (veh/h)	646				240	291

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	1074	1011	68	100
Volume Left	0	0	0	0
Volume Right	0	0	68	100
cSH	1700	1700	1700	291
Volume to Capacity	0.63	0.59	0.04	0.34
Queue Length 95th (ft)	0	0	0	37
Control Delay (s)	0.0	0.0	0.0	23.7
Lane LOS				C
Approach Delay (s)	0.0	0.0		23.7
Approach LOS				C

Intersection Summary			
Average Delay		1.1	
Intersection Capacity Utilization		63.1%	ICU Level of Service
Analysis Period (min)		15	B

HCM Unsignalized Intersection Capacity Analysis
 20: N Frontage Rd & E Drive

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 5/12/2009



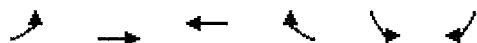
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↗		↘
Volume (veh/h)	0	835	840	65	0	75
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	879	884	68	0	79
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLT	TLTW			
Median storage (veh)		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	953				1763	884
vC1, stage 1 conf vol					884	
vC2, stage 2 conf vol					879	
vCu, unblocked vol	953				1763	884
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	77
cM capacity (veh/h)	721				294	344

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	879	884	68	79
Volume Left	0	0	0	0
Volume Right	0	0	68	79
cSH	1700	1700	1700	344
Volume to Capacity	0.52	0.52	0.04	0.23
Queue Length 95th (ft)	0	0	0	22
Control Delay (s)	0.0	0.0	0.0	18.5
Lane LOS				C
Approach Delay (s)	0.0	0.0		18.5
Approach LOS				C

Intersection Summary			
Average Delay		0.8	
Intersection Capacity Utilization		55.5%	ICU Level of Service
Analysis Period (min)		15	B

HCM Unsignalized Intersection Capacity Analysis
 21: N Frontage Rd & City Market

05-168
 5/12/2009



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	90	740	795	95	95	110
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	95	779	837	100	100	116
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage (veh)		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	937				1805	837
vC1, stage 1 conf vol					837	
vC2, stage 2 conf vol					968	
vCu, unblocked vol	937				1805	837
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	87				61	68
cM capacity (veh/h)	731				259	367

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	95	779	837	100	100	116
Volume Left	95	0	0	0	100	0
Volume Right	0	0	0	100	0	116
cSH	731	1700	1700	1700	259	367
Volume to Capacity	0.13	0.46	0.49	0.06	0.39	0.32
Queue Length 95th (ft)	11	0	0	0	43	33
Control Delay (s)	10.7	0.0	0.0	0.0	27.3	19.3
Lane LOS	B				D	C
Approach Delay (s)	1.2		0.0		23.0	
Approach LOS					C	

Intersection Summary						
Average Delay			2.9			
Intersection Capacity Utilization			62.1%		ICU Level of Service	B
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 22: N Frontage Rd & Buffehr Creek Rd

05-168
 5/12/2009



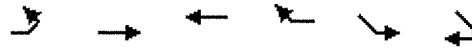
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↗		↙	
Volume (veh/h)	70	760	860	45	35	30
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	74	800	905	47	37	32
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	None			
Median storage (veh)		2				
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	953				1876	929
vC1, stage 1 conf vol					929	
vC2, stage 2 conf vol					947	
vCu, unblocked vol	953				1876	929
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	90				86	90
cM capacity (veh/h)	721				257	324

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	874	953	68
Volume Left	74	0	37
Volume Right	0	47	32
cSH	721	1700	284
Volume to Capacity	0.10	0.56	0.24
Queue Length 95th (ft)	8	0	23
Control Delay (s)	2.8	0.0	21.7
Lane LOS	A		C
Approach Delay (s)	2.8	0.0	21.7
Approach LOS			C

Intersection Summary			
Average Delay		2.1	
Intersection Capacity Utilization		105.6%	ICU Level of Service
Analysis Period (min)		15	G

HCM Unsignalized Intersection Capacity Analysis
 23: N Frontage Rd & Lions Ridge Loop

05-168
 5/12/2009



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		←	→		↘	↙
Volume (veh/h)	45	485	530	35	15	50
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	47	511	558	37	16	53
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	595				1182	576
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	595				1182	576
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				92	90
cM capacity (veh/h)	981				200	517

Direction, Lane #	EB 1	WB 1	SE 1
Volume Total	558	595	68
Volume Left	47	0	16
Volume Right	0	37	53
cSH	981	1700	378
Volume to Capacity	0.05	0.35	0.18
Queue Length 95th (ft)	4	0	16
Control Delay (s)	1.3	0.0	16.6
Lane LOS	A		C
Approach Delay (s)	1.3	0.0	16.6
Approach LOS			C

Intersection Summary			
Average Delay		1.5	
Intersection Capacity Utilization		71.9%	ICU Level of Service
Analysis Period (min)		15	C

HCM Unsignalized Intersection Capacity Analysis
 24: N Frontage Rd & Red Sandstone Rd

05-168
 5/12/2009



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↙	↘
Volume (veh/h)	60	440	495	65	20	70
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	63	463	521	68	21	74
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	589				1145	555
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	589				1145	555
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				90	86
cM capacity (veh/h)	986				207	531

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	526	589	95
Volume Left	63	0	21
Volume Right	0	68	74
cSH	986	1700	394
Volume to Capacity	0.06	0.35	0.24
Queue Length 95th (ft)	5	0	23
Control Delay (s)	1.8	0.0	17.0
Lane LOS	A		C
Approach Delay (s)	1.8	0.0	17.0
Approach LOS			C

Intersection Summary			
Average Delay		2.1	
Intersection Capacity Utilization		71.9%	ICU Level of Service
Analysis Period (min)		15	C



Movement Summary

S Frontage Rd Vail Rd PM 2025 2nb

w/ Simba Run; ideal

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Vail Rd										
3L	L	15	6.2	0.552	27.7	LOS C	111	0.91	1.14	18.3
8T	T	310	1.9	0.554	18.5	LOS B	124	0.92	1.11	19.6
8R	R	75	2.6	0.555	17.9	LOS B	124	0.94	1.13	19.7
Approach		402	2.2	0.553	18.8	LOS B	124	0.93	1.12	19.5
WB S Frontage Rd										
1L	L	65	1.5	0.163	15.7	LOS B	21	0.68	0.88	21.4
6T	T	435	5.1	0.605	8.2	LOS A	137	0.82	0.99	23.0
6R	R	1160	4.2	0.611	1.0	LOS F#	48#	0.00	0.12	24.5
Approach		1660	4.3	0.611	3.5	LOS A	137	0.24	0.38	23.9
SB Vail Rd										
7L	L	345	3.8	0.625	14.6	LOS B	166	0.69	0.95	21.8
4T	T	185	2.2	0.625	5.7	LOS A	166	0.78	0.76	23.6
4R	R	355	5.1	0.625	6.6	LOS A	166	0.78	0.82	23.3
Approach		885	4.0	0.625	9.5	LOS A	166	0.74	0.86	22.7
EB I-70 Off Ramps										
15L	L	20	4.8	0.457	18.0	LOS B	91	0.85	1.04	20.9
12T	T	395	2.0	0.611	12.9	LOS B	166	0.86	1.04	21.7
12R	R	275	2.2	0.612	11.7	LOS B	166	0.88	1.08	21.6
Approach		692	2.2	0.611	12.6	LOS B	166	0.87	1.05	21.6
EB S Frontage Rd										
5L	L	190	5.2	0.476	14.0	LOS B	90	0.74	0.98	21.9
2T	T	950	3.8	0.762	9.9	LOS A	240	0.85	1.11	22.7
2R	R	150	2.0	0.217	6.2	LOS A	31	0.66	0.71	23.5
Approach		1291	3.8	0.762	10.1	LOS B	240	0.81	1.05	22.6
All Vehicles		4930	3.7	0.762	8.8	LOS A	240	0.63	0.79	22.6

sh. #10

Symbols which may appear in this table:



Movement Summary

S Frontage Rd Vail Rd PM 2025 2nb

w/ Simba Run; snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Vail Rd										
3L	L	18	5.3	1.118	137.8	LOS F	644	1.00	2.38	7.8
8T	T	373	1.9	1.120	108.8	LOS F	644	1.00	2.08	8.6
8R	R	90	2.2	1.000#	51.2	LOS D	238	1.00	1.27	13.3
Approach		483	2.1	1.121	99.1	LOS F	644	1.00	1.94	9.1
WB S Frontage Rd										
1L	L	78	2.5	0.230	17.4	LOS B	32	0.75	0.91	20.8
6T	T	524	5.0	0.855	19.7	LOS B	307	0.97	1.46	19.3
6R	R	1398	4.2	0.735	1.1	LOS F#	58#	0.00	0.12	24.5
Approach		2000	4.3	0.855	6.6	LOS A	307	0.29	0.50	22.5
SB Vail Rd										
7L	L	416	3.8	0.821	18.0	LOS B	310	0.81	1.11	20.9
4T	T	223	1.8	0.822	10.7	LOS B	310	0.97	1.25	22.1
4R	R	428	4.9	0.821	11.6	LOS B	310	0.97	1.17	21.7
Approach		1065	3.8	0.821	13.9	LOS B	310	0.91	1.17	21.4
EB I-70 Off Ramps										
15L	L	24	4.0	0.714	29.4	LOS C	184	0.96	1.28	18.1
12T	T	476	2.1	0.943	32.1	LOS C	511	0.98	1.50	16.8
12R	R	331	2.1	0.943	42.0	LOS D	511	1.00	1.99	14.6
Approach		833	2.2	0.943	36.0	LOS D	511	0.99	1.69	15.9
EB S Frontage Rd										
5L	L	229	4.8	0.646	17.4	LOS B	150	0.86	1.12	20.9
2T	T	1145	3.8	1.032	36.8	LOS D	852	0.98	2.34	15.9
2R	R	181	2.2	0.286	6.9	LOS A	44	0.74	0.79	23.3
Approach		1553	3.7	1.032	30.5	LOS C	852	0.93	1.98	17.1
All Vehicles		5934	3.6	1.120	25.8	LOS C	852	0.72	1.29	17.7

Symbols which may appear in this table:



Movement Summary

S Frontage Rd Vail Rd AM 2025 2nb 600toEast Vail

w/ Simba Run; snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Vail Rd										
3L	L	145	2.1	0.457	20.9	LOS C	82	0.84	1.05	19.9
8T	T	229	2.2	0.457	11.6	LOS B	90	0.85	0.99	21.7
8R	R	66	1.5	0.458	12.1	LOS B	90	0.86	1.00	21.5
Approach		440	2.0	0.457	14.7	LOS B	90	0.85	1.01	21.0
WB S Frontage Rd										
1L	L	78	2.5	0.160	13.5	LOS B	20	0.60	0.85	22.0
6T	T	392	5.1	0.440	4.4	LOS A	79	0.65	0.55	23.9
6R	R	494	4.7	0.260	0.8	LOS C#	21#	0.00	0.11	24.6
Approach		965	4.7	0.440	3.3	LOS A	79	0.31	0.35	24.0
SB Vail Rd										
7L	L	542	4.6	0.850	17.4	LOS B	354	0.83	1.12	20.9
4T	T	223	1.8	0.851	12.2	LOS B	354	0.96	1.31	21.6
4R	R	422	5.0	0.849	13.1	LOS B	354	0.96	1.25	21.2
Approach		1186	4.2	0.849	14.9	LOS B	354	0.90	1.20	21.1
EB I-70 Off Ramps										
15L	L	12	7.7	0.722	34.6	LOS C	196	0.98	1.33	17.0
12T	T	506	2.0	0.973	43.3	LOS D	543	0.99	1.65	15.1
12R	R	247	2.0	0.972	52.5	LOS D	543	1.00	2.20	13.1
Approach		766	2.1	0.973	46.1	LOS D	543	0.99	1.82	14.4
EB S Frontage Rd										
5L	L	90	5.5	0.324	13.8	LOS B	53	0.77	0.93	21.9
2T	T	560	4.5	0.519	6.9	LOS A	115	0.82	0.86	23.4
2R	R	114	1.8	0.185	6.8	LOS A	28	0.73	0.77	23.3
Approach		765	4.2	0.519	7.7	LOS A	115	0.80	0.85	23.2
All Vehicles		4122	3.7	0.973	16.6	LOS B	543	0.76	1.03	20.2

Symbols which may appear in this table:



Movement Summary

N Frontage Rd Vail Rd PM 2025 2nb only

w/ Simba Run

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Vail Rd										
3L	L	875	5.0	0.405	9.1	LOS A	100	0.06	0.63	23.0
8T	T	380	5.0	0.405	8.0	LOS A	100	0.06	0.60	23.2
8R	R	5	16.7	0.400	2.6	LOS A	100	0.06	0.28	25.1
Approach		1261	5.1	0.405	8.7	LOS A	100	0.06	0.62	23.1
WB I-70 Off Ramps										
1L	L	555	2.0	0.870	25.9	LOS C	271	0.90	1.47	18.2
6T	T	180	2.2	0.493	15.1	LOS B	72	0.78	0.97	20.5
6R	R	5	16.7	0.500	16.8	LOS B	72	0.78	1.01	19.9
Approach		741	2.2	0.870	23.2	LOS C	271	0.87	1.35	18.7
WB Spraddle Creek										
14T	T	10	9.1	0.030	16.7	LOS B	4	0.80	0.87	20.2
14R	R	5	16.7	0.030	16.2	LOS B	4	0.80	0.88	20.1
Approach		17	11.8	0.030	16.5	LOS B	4	0.80	0.87	20.1
EB N Frontage Rd										
15L	L	5	16.7	0.667	24.4	LOS C	165	0.89	1.22	18.6
12T	T	320	5.0	0.694	17.9	LOS B	165	0.89	1.18	19.7
12R	R	45	2.2	0.194	18.5	LOS B	24	0.80	0.90	19.4
Approach		371	4.9	0.694	18.1	LOS B	165	0.88	1.15	19.6
All Vehicles		2390	4.2	0.870	14.7	LOS B	271	0.45	0.93	21.0

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Movement Summary

N Frontage Rd Vail Rd PM 2025 2nb only

w/ Simba Run - snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Vail Rd										
3L	L	1054	5.0	0.489	9.1	LOS A	140	0.08	0.63	22.9
8T	T	458	5.0	0.489	8.0	LOS A	140	0.08	0.60	23.2
8R	R	6	14.3	0.500	2.6	LOS A	140	0.08	0.28	25.0
Approach		1520	5.1	0.489	8.7	LOS A	140	0.08	0.61	23.0
WB I-70 Off Ramps										
1L	L	<u>669</u>	1.9	1.162	103.2	LOS F	1082	1.00	3.71	9.2
6T	T	217	1.8	0.662	21.3	LOS C	113	0.87	1.14	18.7
6R	R	6	14.3	0.636	23.0	LOS C	113	0.87	1.15	18.2
Approach		892	2.0	1.162	82.7	LOS F	1082	0.97	3.06	10.5
WB Spraddle Creek										
14T	T	12	7.7	0.046	23.0	LOS C	7	0.86	0.93	18.5
14R	R	6	14.3	0.046	21.7	LOS C	7	0.86	0.93	18.6
Approach		20	10.0	0.046	22.5	LOS C	7	0.86	0.93	18.5
EB N Frontage Rd										
15L	L	6	14.3	1.000#	37.7	LOS D	293	0.99	1.43	15.9
12T	T	386	4.9	0.965	31.2	LOS C	293	0.99	1.43	16.5
12R	R	54	1.9	0.267	22.3	LOS C	34	0.85	0.95	18.4
Approach		446	4.7	0.966	30.2	LOS C	293	0.97	1.38	16.7
All Vehicles		2878	4.1	1.162	35.1	LOS D	1082	0.50	1.49	16.1

shift to E. Varl

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Movement Summary

N Frontage Rd Vail Rd AM 2025 2nb only 600toEast Vail

w/ Simba Run - ideal

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Vail Rd										
3L	L	360	5.0	0.182	9.1	LOS A	36	0.05	0.64	23.0
8T	T	190	5.2	0.182	8.0	LOS A	36	0.05	0.61	23.3
8R	R	5	16.7	0.182	2.6	LOS A	36	0.05	0.29	25.1
Approach		557	5.2	0.182	8.6	LOS A	36	0.05	0.63	23.1
WB I-70 Off Ramps										
1L	L	600	2.0	0.715	15.3	LOS B	182	0.75	1.08	21.0
6T	T	120	1.7	0.300	9.7	LOS A	37	0.61	0.76	22.3
6R	R	5	16.7	0.300	11.4	LOS B	37	0.61	0.82	21.6
Approach		726	2.1	0.715	14.4	LOS B	182	0.73	1.02	21.2
WB Spraddle Creek										
14T	T	15	6.2	0.024	11.5	LOS B	3	0.69	0.77	21.9
14R	R	5	16.7	0.024	10.8	LOS B	3	0.69	0.78	21.8
Approach		22	9.1	0.024	11.3	LOS B	3	0.69	0.78	21.9
EB N Frontage Rd										
15L	L	5	16.7	0.750	23.1	LOS C	245	0.92	1.30	18.9
12T	T	490	4.9	0.799	16.4	LOS B	245	0.91	1.26	20.1
12R	R	25	3.8	0.160	14.4	LOS B	20	0.71	0.86	20.6
Approach		522	5.0	0.800	16.4	LOS B	245	0.90	1.24	20.1
All Vehicles		1827	3.9	0.799	13.2	LOS B	245	0.57	0.96	21.4

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Movement Summary

N Frontage Rd Vail Rd AM 2025 2nb only 600toEast Vail

w/ Simba Run - snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Vail Rd										
3L	L	434	5.1	0.219	9.1	LOS A	45	0.06	0.64	23.0
8T	T	229	4.8	0.219	8.0	LOS A	45	0.06	0.61	23.2
8R	R	6	14.3	0.219	2.6	LOS A	45	0.06	0.29	25.1
Approach		669	5.1	0.219	8.6	LOS A	45	0.06	0.62	23.1
WB I-70 Off Ramps										
1L	L	723	1.9	0.907	23.5	LOS C	373	0.94	1.48	18.7
6T	T	145	2.1	0.389	11.9	LOS B	53	0.66	0.84	21.5
6R	R	6	14.3	0.389	13.6	LOS B	53	0.66	0.89	20.9
Approach		874	2.1	0.907	21.5	LOS C	373	0.89	1.37	19.1
WB Spraddle Creek										
14T	T	18	5.3	0.035	13.4	LOS B	5	0.76	0.84	21.3
14R	R	6	14.3	0.035	12.4	LOS B	5	0.76	0.84	21.3
Approach		26	7.7	0.035	13.1	LOS B	5	0.76	0.84	21.3
EB N Frontage Rd										
15L	L	6	14.3	1.000#	26.5	LOS C	293	1.00	1.26	18.1
12T	T	590	5.1	1.000#	19.8	LOS B	293	0.97	1.22	19.2
12R	R	30	3.2	0.517	21.4	LOS C	86	0.85	1.05	18.6
Approach		629	5.1	1.000	19.9	LOS B	293	0.97	1.21	19.1
All Vehicles		2198	3.9	1.000	17.0	LOS B	373	0.66	1.09	20.2

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement



Movement Summary

S Frontage Rd Chamonix Dr AM 2025 2nb

w/ Simba Run - snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Chamonix Dr										
3L	L	6	14.3	0.250	31.6	LOS C	43	0.91	0.97	17.2
8T	T	18	5.3	0.247	24.5	LOS C	43	0.91	0.93	18.0
8R	R	12	7.7	0.245	25.6	LOS C	43	0.91	0.85	17.7
Approach		39	7.7	0.248	26.2	LOS C	43	0.91	0.91	17.7
WB S Frontage Rd										
1L	L	18	5.3	0.352	12.7	LOS B	65	0.68	0.84	22.0
6T	T	60	1.7	0.351	5.7	LOS A	65	0.68	0.66	23.6
6R	R	542	5.0	0.468	7.2	LOS A	104	0.72	0.77	23.2
Approach		621	4.7	0.468	7.2	LOS A	104	0.71	0.76	23.2
SB Chamonix Dr										
7L	L	392	4.3	0.368	10.0	LOS A	74	0.30	0.61	22.7
4T	T	6	14.3	0.368	2.8	LOS A	74	0.30	0.32	24.6
4R	R	12	7.7	0.371	3.6	LOS A	74	0.30	0.39	24.2
Approach		412	4.6	0.368	9.7	LOS A	74	0.30	0.60	22.8
EB I-70 Off Ramps										
15L	L	404	2.0	0.630	18.2	LOS B	159	0.78	1.06	20.5
12T	T	970	2.0	0.903	15.3	LOS B	360	1.00	1.00	21.0
12R	R	6	14.3	0.875	11.2	LOS B	360	1.00	0.64	21.8
Approach		1380	2.0	0.903	16.2	LOS B	360	0.94	1.01	20.8
EB S Frontage Rd										
5L	L	6	14.3	0.636	43.8	LOS D	125	0.94	1.18	15.0
2T	T	102	2.0	0.622	37.7	LOS D	125	0.94	1.17	15.5
2R	R	6	14.3	0.636	37.7	LOS D	125	0.94	1.16	15.3
Approach		116	3.4	0.621	38.0	LOS D	125	0.94	1.17	15.4
All Vehicles		2568	3.2	0.903	14.1	LOS B	360	0.78	0.89	21.2

Symbols which may appear in this table:



Movement Summary

S Frontage Rd Chamonix Dr PM 2025 2nb

w/ Simba Run *Ideal*

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Chamonix Dr										
3L	L	5	16.7	0.143	24.2	LOS C	24	0.86	0.95	18.8
8T	T	15	6.2	0.144	17.2	LOS B	24	0.86	0.89	19.9
8R	R	10	9.1	0.145	18.2	LOS B	24	0.86	0.80	19.6
Approach		33	9.1	0.144	18.8	LOS B	24	0.86	0.87	19.6
WB S Frontage Rd										
1L	L	5	16.7	0.545	17.2	LOS B	109	0.82	1.04	20.6
6T	T	40	2.5	0.533	10.3	LOS B	109	0.82	0.97	22.2
6R	R	670	5.1	0.710	12.9	LOS B	195	0.87	1.10	21.2
Approach		717	5.0	0.710	12.8	LOS B	195	0.87	1.09	21.3
SB Chamonix Dr										
7L	L	455	3.3	0.534	10.2	LOS B	140	0.29	0.60	22.6
4T	T	15	6.2	0.533	2.6	LOS A	140	0.29	0.30	24.7
4R	R	205	2.0	0.534	3.4	LOS A	140	0.29	0.36	24.3
Approach		676	3.0	0.534	8.0	LOS A	140	0.29	0.52	23.1
EB I-70 Off Ramps										
15L	L	560	2.0	0.747	21.8	LOS C	339	0.90	1.18	19.6
12T	T	400	2.0	0.746	21.7	LOS C	339	1.00	1.31	19.2
12R	R	5	16.7	0.750	17.5	LOS B	339	1.00	1.14	19.7
Approach		966	2.1	0.747	21.7	LOS C	339	0.94	1.23	19.4
EB S Frontage Rd										
5L	L	115	1.7	0.642	29.9	LOS C	137	0.92	1.18	17.5
2T	T	70	1.4	0.642	23.6	LOS C	137	0.92	1.15	18.3
2R	R	5	16.7	0.667	23.8	LOS C	137	0.92	1.15	18.1
Approach		191	2.1	0.643	27.4	LOS C	137	0.92	1.17	17.8
All Vehicles		2583	3.2	0.750	16.0	LOS B	339	0.75	1.00	20.6

Symbols which may appear in this table:



Movement Summary

S Frontage Rd Chamonix Dr PM 2025 2nb

w/ Simba Run - snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Chamonix Dr										
3L	L	6	14.3	0.250	34.2	LOS C	44	0.91	0.97	16.7
8T	T	18	5.3	0.253	27.1	LOS C	44	0.91	0.93	17.4
8R	R	12	7.7	0.255	28.1	LOS C	44	0.91	0.85	17.1
Approach		39	7.7	0.254	28.7	LOS C	44	0.91	0.91	17.2
WB S Frontage Rd										
1L	L	6	14.3	0.778	31.1	LOS C	236	0.96	1.35	17.3
6T	T	48	2.1	0.800	24.1	LOS C	236	0.96	1.35	18.1
6R	R	807	5.0	1.069	54.7	LOS D	766	0.99	2.12	12.8
Approach		862	4.9	1.068	52.8	LOS D	766	0.99	2.07	13.1
SB Chamonix Dr										
7L	L	548	3.3	0.651	10.4	LOS B	211	0.40	0.59	22.4
4T	T	18	5.3	0.655	2.8	LOS A	211	0.40	0.32	24.3
4R	R	247	2.0	0.650	3.6	LOS A	211	0.40	0.38	24.0
Approach		814	2.9	0.651	8.2	LOS A	211	0.40	0.52	22.9
EB I-70 Off Ramps										
15L	L	675	1.9	1.000#	35.4	LOS D	405	1.00	1.49	16.6
12T	T	482	2.1	1.000#	21.7	LOS C	360	1.00	1.12	19.2
12R	R	6	14.3	1.000#	17.6	LOS B	360	1.00	0.84	19.7
Approach		1163	2.1	1.000	29.6	LOS C	405	1.00	1.33	17.6
EB S Frontage Rd										
5L	L	139	2.2	1.045	100.6	LOS F	424	1.00	1.94	9.5
2T	T	84	2.4	1.049	94.4	LOS F	424	1.00	1.94	9.5
2R	R	6	14.3	1.000	94.6	LOS F	424	1.00	1.91	9.3
Approach		231	2.6	1.046	98.1	LOS F	424	1.00	1.94	9.5
All Vehicles		3109	3.2	1.069	35.5	LOS D	766	0.84	1.36	16.1

Symbols which may appear in this table:



Movement Summary

N Frontage Rd Chamonix Dr wChamonix AM 2025 3wb 2nb full

w/ Simba Run - snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Chamonix Dr										
3L	L	145	2.1	0.217	10.5	LOS B	33	0.18	0.63	22.7
8T	T	60	1.7	0.217	2.5	LOS A	33	0.18	0.28	25.0
8R	R	627	2.1	0.442	3.7	LOS A	92	0.19	0.38	24.4
Approach		832	2.0	0.442	4.8	LOS A	92	0.19	0.41	24.1
WB I-70 Off Ramps										
11L	L	36	2.8	0.054	13.4	LOS B	7	0.57	0.78	21.9
16T	T	42	2.4	0.054	5.7	LOS A	7	0.57	0.61	23.7
16R	R	36	2.8	0.019	2.1	LOS A#	1#	0.00	0.27	24.0
Approach		114	2.6	0.054	7.0	LOS A	7	0.39	0.56	23.1
WB N Frontage Rd										
1L	L	271	1.8	0.247	12.7	LOS B	37	0.41	0.71	27.1
6T	T	349	2.0	0.284	10.8	LOS B	45	0.41	0.68	27.8
6R	R	36	2.8	0.048	7.9	LOS A	6	0.40	0.59	29.4
Approach		656	2.0	0.284	11.4	LOS B	45	0.41	0.69	27.6
SB Chamonix Dr										
7L	L	24	4.0	0.121	12.0	LOS B	16	0.58	0.81	22.2
4T	T	145	2.1	0.121	5.0	LOS A	16	0.58	0.58	23.9
4R	R	6	14.3	0.121	6.4	LOS A	16	0.58	0.70	23.4
Approach		177	2.8	0.121	6.0	LOS A	16	0.58	0.62	23.6
EB N Frontage Rd										
5L	L	6	14.3	0.031	12.5	LOS B	4	0.58	0.77	22.1
2T	T	12	7.7	0.031	5.5	LOS A	4	0.58	0.59	23.9
2R	R	18	5.3	0.023	5.4	LOS A	3	0.48	0.52	23.7
Approach		39	7.7	0.031	6.7	LOS A	4	0.53	0.59	23.4
All Vehicles		1818	2.3	0.442	7.5	LOS A	92	0.33	0.55	25.1

Symbols which may appear in this table:



Movement Summary

N Frontage Rd Chamonix Dr wChamonix PM 2025 3wb 2nb full

w/ Simba Run - ideal

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Chamonix Dr										
3L	L	600	2.0	0.516	10.8	LOS B	122	0.33	0.62	22.5
8T	T	80	2.5	0.516	2.7	LOS A	122	0.33	0.31	24.5
8R	R	660	2.0	0.514	4.0	LOS A	121	0.33	0.42	24.0
Approach		1340	2.0	0.516	6.9	LOS A	122	0.33	0.50	23.3
WB I-70 Off Ramps										
11L	L	15	6.2	0.079	15.0	LOS B	10	0.67	0.89	21.4
16T	T	70	1.4	0.079	7.0	LOS A	10	0.67	0.75	23.4
16R	R	345	2.0	0.182	2.1	LOS B#	14#	0.00	0.27	24.0
Approach		431	2.1	0.182	3.3	LOS A	10	0.13	0.37	23.7
WB N Frontage Rd										
1L	L	525	2.1	0.599	18.3	LOS B	170	0.85	1.03	24.9
6T	T	525	1.9	0.679	19.1	LOS B	210	0.89	1.13	24.3
6R	R	60	1.7	0.113	11.5	LOS B	17	0.66	0.79	27.5
Approach		1111	2.0	0.679	18.3	LOS B	210	0.86	1.06	24.7
SB Chamonix Dr										
7L	L	50	2.0	0.303	20.5	LOS C	50	0.86	0.97	19.7
4T	T	145	2.1	0.303	12.6	LOS B	52	0.87	0.91	21.3
4R	R	5	16.7	0.300	13.6	LOS B	52	0.87	0.93	21.0
Approach		201	2.5	0.303	14.6	LOS B	52	0.87	0.93	20.9
EB N Frontage Rd										
5L	L	5	16.7	0.098	20.0	LOS B	17	0.85	0.95	19.8
2T	T	25	3.8	0.099	13.0	LOS B	17	0.85	0.88	21.2
2R	R	100	2.0	0.198	12.2	LOS B	41	0.87	0.87	21.4
Approach		132	3.0	0.198	12.7	LOS B	41	0.86	0.88	21.3
All Vehicles		3215	2.1	0.679	11.1	LOS B	210	0.54	0.72	23.6

Symbols which may appear in this table:



Movement Summary

N Frontage Rd Chamonix Dr wChamonix PM 2025 3wb 2nb full

w/ Simba Run - snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Chamonix Dr										
3L	L	723	1.9	0.630	11.0	LOS B	178	0.44	0.62	22.3
8T	T	96	2.1	0.632	2.9	LOS A	178	0.44	0.34	24.2
8R	R	795	2.0	0.628	4.2	LOS A	177	0.44	0.45	23.8
Approach		1613	2.0	0.630	7.2	LOS A	178	0.44	0.52	23.1
WB I-70 Off Ramps										
11L	L	18	5.3	0.119	16.8	LOS B	16	0.75	0.92	20.9
16T	T	84	2.4	0.119	8.5	LOS A	17	0.75	0.81	22.8
16R	R	416	1.9	0.218	2.1	LOS B#	17#	0.00	0.27	24.0
Approach		519	2.1	0.218	3.7	LOS A	17	0.15	0.38	23.6
WB N Frontage Rd										
1L	L	633	2.1	0.994	56.0	LOS E	691	1.00	1.91	15.2
6T	T	633	2.1	0.854	30.4	LOS C	416	1.00	1.45	20.4
6R	R	72	1.4	0.159	13.3	LOS B	26	0.75	0.87	26.5
Approach		1338	2.0	0.993	41.6	LOS D	691	0.99	1.63	17.7
SB Chamonix Dr										
7L	L	60	1.7	0.583	44.8	LOS D	114	0.94	1.18	14.8
4T	T	175	1.7	0.584	35.0	LOS C	126	0.96	1.18	15.8
4R	R	6	14.3	0.583	35.3	LOS D	126	0.97	1.19	15.7
Approach		241	2.1	0.583	37.4	LOS D	126	0.96	1.18	15.5
EB N Frontage Rd										
5L	L	6	14.3	0.200	31.7	LOS C	37	0.94	0.98	17.1
2T	T	30	3.2	0.201	24.6	LOS C	37	0.94	0.95	18.0
2R	R	120	1.7	0.351	21.2	LOS C	82	1.00	1.02	18.8
Approach		158	2.5	0.351	22.3	LOS C	82	0.99	1.00	18.5
All Vehicles		3869	2.0	0.994	21.1	LOS C	691	0.64	0.95	20.1

Symbols which may appear in this table:



Movement Summary

N Frontage Rd W Vail 2 w/ Chamonix PM 2025 wSR

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
WB S Frontage Rd										
6T	T	760	2.0	0.565	9.8	LOS A	140	0.74	0.83	30.8
6R	R	190	2.1	0.564	7.7	LOS A	140	0.74	0.83	23.0
Approach		950	2.0	0.565	9.3	LOS A	140	0.74	0.83	28.9
SB W Vail Comm										
7L	L	265	1.9	0.378	12.5	LOS B	63	0.70	0.91	22.0
4R	R	225	2.2	0.337	6.8	LOS A	53	0.69	0.74	23.2
Approach		491	2.0	0.378	9.9	LOS A	63	0.69	0.84	22.5
EB N Frontage Rd										
5L	L	450	2.0	0.505	10.9	LOS B	110	0.59	0.72	22.2
2T	T	570	1.9	0.505	3.9	LOS A	110	0.59	0.46	23.8
Approach		1020	2.0	0.505	7.0	LOS A	110	0.59	0.57	23.1
All Vehicles		2461	2.0	0.565	8.5	LOS A	140	0.67	0.72	24.8

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement





Movement Summary

N Frontage Rd W Vail 2 w/ Chamonix PM 2025 wSR

snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
WB S Frontage Rd										
6T	T	916	2.0	0.758	14.8	LOS B	269	0.94	1.10	28.0
6R	R	229	2.2	0.758	12.7	LOS B	270	0.94	1.16	21.2
Approach		1144	2.0	0.758	14.3	LOS B	270	0.94	1.11	26.3
SB W Vail Comm										
7L	L	319	1.9	0.535	14.5	LOS B	107	0.82	1.02	21.4
4R	R	271	1.8	0.483	8.7	LOS A	90	0.80	0.94	22.7
Approach		590	1.9	0.535	11.9	LOS B	107	0.81	0.98	21.9
EB N Frontage Rd										
5L	L	542	2.0	0.643	12.6	LOS B	186	0.74	0.84	22.0
2T	T	687	2.0	0.643	5.7	LOS A	186	0.74	0.71	23.4
Approach		1229	2.0	0.643	8.7	LOS A	186	0.74	0.77	22.7
All Vehicles		2963	2.0	0.758	11.5	LOS B	270	0.83	0.94	23.8

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Site: NF&WV2 wC_p2025 wSR snow
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Movement Summary

S Frontage Rd Simba Run 1 PM 2025 +sb by

1 lane roundabout - snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
WB S Frontage Rd										
6T	T	813	2.0	1.046	38.8	LOS D	1564	1.00	1.10	18.7
6R	R	392	2.0	1.045	36.6	LOS D	1564	1.00	1.32	15.4
Approach		1205	2.0	1.046	38.1	LOS D	1564	1.00	1.18	17.5
SB Simba Run										
7L	L	361	1.9	0.883	41.2	LOS D	369	1.00	1.53	15.1
4R	R	60	1.7	0.147	10.4	LOS B	29	0.84	0.84	22.0
Approach		421	1.9	0.883	36.8	LOS D	369	0.98	1.43	15.8
EB S Frontage Rd										
5L	L	120	1.7	0.992	41.6	LOS D	820	1.00	1.79	15.0
2T	T	639	2.0	0.994	35.8	LOS D	820	1.00	1.79	15.6
Approach		759	2.0	0.994	36.8	LOS D	820	1.00	1.79	15.5
All Vehicles		2385	2.0	1.046	37.4	LOS D	1564	1.00	1.42	16.5

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Site: SF&SR1_p2025 wSR +sb by 0.68
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Movement Summary

S Frontage Rd Simba Run 1 PM 2025 +sb by

1 lane roundabout

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
WB S Frontage Rd										
6T	T	675	2.1	0.848	8.5	LOS A	447	0.91	0.57	29.8
6R	R	325	2.1	0.847	6.2	LOS A	447	0.91	0.56	22.6
Approach		1002	2.1	0.848	7.7	LOS A	447	0.91	0.57	27.0
SB Simba Run										
7L	L	300	2.0	0.611	20.4	LOS C	170	0.95	1.14	19.4
4R	R	50	2.0	0.102	9.0	LOS A	19	0.77	0.76	22.5
Approach		350	2.0	0.611	18.8	LOS B	170	0.92	1.08	19.8
EB S Frontage Rd										
5L	L	100	2.0	0.763	16.8	LOS B	317	0.95	1.01	20.4
2T	T	530	2.1	0.766	11.0	LOS B	317	0.95	0.99	21.8
Approach		630	2.1	0.766	11.9	LOS B	317	0.95	0.99	21.6
All Vehicles		1982	2.1	0.848	11.0	LOS B	447	0.92	0.79	23.6

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Site: SF&SR1_p2025 WSR +sb by
 L:\05168\cap analysis\p2025\20% close-in reduction\SF&SR1_p2025.aap
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Movement Summary

S Frontage Rd Simba Run 2 PM 2025

2 lane roundabout

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
WB S Frontage Rd										
6T	T	675	2.1	0.533	6.6	LOS A	132	0.39	0.51	32.2
6R	R	325	2.1	0.327	4.2	LOS A	61	0.33	0.44	24.0
Approach		1002	2.1	0.533	5.8	LOS A	132	0.37	0.48	29.0
SB Simba Run										
7L	L	300	2.0	0.455	14.9	LOS B	95	0.77	0.97	21.0
4R	R	50	2.0	0.149	12.7	LOS B	20	0.67	0.83	21.2
Approach		350	2.0	0.454	14.6	LOS B	95	0.75	0.95	21.1
EB S Frontage Rd										
5L	L	100	2.0	0.617	12.3	LOS B	167	0.71	0.82	22.0
2T	T	530	2.1	0.618	6.5	LOS A	167	0.69	0.72	23.3
Approach		630	2.1	0.618	7.4	LOS A	167	0.69	0.73	23.0
All Vehicles		1982	2.1	0.618	7.9	LOS A	167	0.54	0.65	25.2

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement



Site: SF&SR2_p2025 wSR

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Movement Summary

S Frontage Rd Simba Run 2 PM 2025

2 lane roundabout - snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
WB S Frontage Rd										
6T	T	813	2.0	0.657	7.0	LOS A	203	0.55	0.54	31.5
6R	R	392	2.0	0.405	4.4	LOS A	84	0.41	0.47	23.8
Approach		1205	2.0	0.657	6.1	LOS A	203	0.50	0.52	28.5
SB Simba Run										
7L	L	361	1.9	0.661	21.4	LOS C	189	0.93	1.19	19.2
4R	R	60	1.7	0.218	15.2	LOS B	32	0.75	0.87	20.4
Approach		421	1.9	0.661	20.6	LOS C	189	0.91	1.14	19.3
EB S Frontage Rd										
5L	L	120	1.7	0.800	16.7	LOS B	324	0.94	1.07	20.6
2T	T	639	2.0	0.801	10.5	LOS B	324	0.90	1.01	22.1
Approach		759	2.0	0.800	11.5	LOS B	324	0.91	1.02	21.8
All Vehicles		2385	2.0	0.801	10.4	LOS B	324	0.70	0.79	24.1

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Site: SF&SR2_p2025 WSR snow
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Movement Summary

N Frontage Rd Simba Run 1 PM 2025 wb by

1 lane roundabout

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Simba Run										
3L	L	410	2.0	0.656	18.6	LOS B	200	0.89	1.12	19.9
8R	R	15	6.2	0.667	13.8	LOS B	200	0.89	1.10	20.8
Approach		426	2.1	0.657	18.4	LOS B	200	0.89	1.12	19.9
WB N Frontage Rd										
1L	L	70	1.4	0.609	16.2	LOS B	184	0.84	0.91	25.5
6T	T	510	2.0	0.607	10.6	LOS B	184	0.82	0.85	28.0
Approach		580	1.9	0.607	11.2	LOS B	184	0.82	0.86	27.7
EB N Frontage Rd										
2T	T	515	1.9	0.641	4.0	LOS A	228	0.48	0.42	23.7
2R	R	280	2.1	0.641	5.0	LOS A	228	0.48	0.47	23.4
Approach		795	2.0	0.641	4.4	LOS A	228	0.48	0.44	23.6
All Vehicles		1801	2.0	0.667	9.9	LOS A	228	0.69	0.73	23.7

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



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Movement Summary

N Frontage Rd Simba Run 1 PM 2025 wb by

1 lane roundabout - snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Simba Run										
3L	L	494	2.0	0.932	40.8	LOS D	508	1.00	1.72	15.2
8R	R	18	5.3	0.950	36.0	LOS D	508	1.00	1.71	15.5
Approach		513	2.1	0.933	40.6	LOS D	508	1.00	1.72	15.2
WB N Frontage Rd										
1L	L	84	2.4	0.817	23.5	LOS C	370	1.00	1.18	22.5
6T	T	614	2.0	0.815	17.2	LOS B	370	0.97	1.14	24.7
Approach		699	2.0	0.816	18.0	LOS B	370	0.97	1.14	24.4
EB N Frontage Rd										
2T	T	620	1.9	0.788	4.6	LOS A	377	0.74	0.49	23.1
2R	R	337	2.1	0.788	5.6	LOS A	377	0.74	0.51	22.9
Approach		958	2.0	0.788	5.0	LOS A	377	0.74	0.50	23.1
All Vehicles		2170	2.0	0.950	17.6	LOS B	508	0.88	0.99	20.8

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Site: NF&SR1_p2025 wSR wb by 0.68
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Movement Summary

N Frontage Rd Simba Run 2 PM 2025

2 lane roundabout

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Simba Run										
3L	L	410	2.0	0.447	12.9	LOS B	88	0.67	0.85	21.8
8R	R	15	6.2	0.128	8.9	LOS A	17	0.59	0.71	22.6
Approach		426	2.1	0.447	12.7	LOS B	88	0.67	0.84	21.8
WB N Frontage Rd										
1L	L	70	1.4	0.593	16.0	LOS B	172	0.81	0.89	25.6
6T	T	510	2.0	0.593	10.4	LOS B	172	0.79	0.84	28.1
Approach		580	1.9	0.593	11.1	LOS B	172	0.79	0.84	27.8
EB N Frontage Rd										
2T	T	515	1.9	0.379	3.0	LOS A	94	0.31	0.34	24.4
2R	R	280	2.1	0.251	5.1	LOS A	53	0.29	0.48	23.7
Approach		795	2.0	0.379	3.8	LOS A	94	0.31	0.39	24.1
All Vehicles		1801	2.0	0.593	8.2	LOS A	172	0.55	0.64	24.5

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Site: NF&SR2_p2025 wSR
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Movement Summary

N Frontage Rd Simba Run 2 PM 2025

2 lane roundabout - snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Simba Run										
3L	L	494	2.0	0.598	15.9	LOS B	157	0.80	1.03	20.8
8R	R	18	5.3	0.171	10.3	LOS B	24	0.66	0.79	22.1
Approach		513	2.1	0.598	15.7	LOS B	157	0.80	1.02	20.8
WB N Frontage Rd										
1L	L	84	2.4	0.794	22.4	LOS C	341	1.00	1.15	22.9
6T	T	614	2.0	0.792	16.3	LOS B	341	0.97	1.11	25.1
Approach		699	2.0	0.792	17.0	LOS B	341	0.97	1.12	24.8
EB N Frontage Rd										
2T	T	620	1.9	0.465	3.2	LOS A	132	0.40	0.36	24.2
2R	R	337	2.1	0.309	5.3	LOS A	71	0.35	0.49	23.6
Approach		958	2.0	0.465	3.9	LOS A	132	0.38	0.41	23.9
All Vehicles		2170	2.0	0.794	10.9	LOS B	341	0.67	0.78	23.3

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Site: NF&SR2_p2025 WSR 0.68
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Movement Summary

S Frontage Rd Ford Park 1 wSR PM 2025

1 lane roundabout

Roundabout

Vehicle Movements

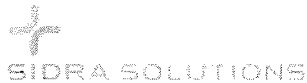
Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Ford Park										
3L	L	140	2.1	0.289	14.1	LOS B	52	0.76	0.90	19.6
8R	R	15	6.2	0.291	10.3	LOS B	52	0.76	0.84	20.6
Approach		156	2.6	0.289	13.7	LOS B	52	0.76	0.89	19.7
WB S Frontage Rd										
1L	L	5	16.7	0.600	17.3	LOS B	173	0.86	1.12	18.7
6T	T	375	1.9	0.619	12.4	LOS B	173	0.86	1.07	19.9
Approach		381	2.1	0.619	12.5	LOS B	173	0.86	1.07	19.8
EB S Frontage Rd										
2T	T	780	2.1	0.557	4.7	LOS A	193	0.09	0.46	22.7
2R	R	90	2.2	0.556	2.8	LOS A	193	0.09	0.33	23.4
Approach		870	2.1	0.557	4.5	LOS A	193	0.09	0.44	22.8
All Vehicles		1407	2.1	0.619	7.7	LOS A	193	0.37	0.66	21.6

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Site: SF&Ford1_p2025 wSR
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Movement Summary

S Frontage Rd Ford Park 1 wSR PM 2025

1 lane roundabout - snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Ford Park										
3L	L	169	1.8	0.413	19.1	LOS B	87	0.86	1.02	18.2
8R	R	18	5.3	0.413	15.3	LOS B	87	0.86	0.99	19.0
Approach		187	2.1	0.413	18.7	LOS B	87	0.86	1.02	18.3
WB S Frontage Rd										
1L	L	6	14.3	0.875	32.7	LOS C	366	1.00	1.54	15.2
6T	T	452	2.0	0.846	27.8	LOS C	366	1.00	1.56	15.8
Approach		459	2.2	0.846	27.9	LOS C	366	1.00	1.56	15.8
EB S Frontage Rd										
2T	T	940	2.0	0.671	4.8	LOS A	300	0.13	0.45	22.6
2R	R	108	1.9	0.671	2.8	LOS A	300	0.13	0.32	23.4
Approach		1048	2.0	0.671	4.6	LOS A	300	0.13	0.43	22.7
All Vehicles		1694	2.1	0.875	12.4	LOS B	366	0.45	0.80	19.9

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Site: SF&Ford1_p2025 wSR snow
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 Processed Jan 20, 2009 10:20:09AM

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Movement Summary

Ever Vail roundabout

D=120' PM 2025 total traffic 1.2 bypass w/ SR wb by

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Forest Rd										
3L	L	353	2.0	0.528	15.3	LOS B	125	0.79	0.98	18.3
8R	R	234	2.1	0.123	0.4	LOS A#	10#	0.00	0.05	24.4
Approach		587	2.0	0.528	9.4	LOS A	125	0.48	0.61	19.6
WB S Frontage Rd										
1L	L	234	2.1	0.833	17.1	LOS B	394	0.98	1.07	17.5
6T	T	734	2.0	0.831	8.8	LOS A	394	0.91	0.98	20.2
Approach		968	2.1	0.832	10.8	LOS B	394	0.93	1.00	19.4
EB S Frontage Rd										
2T	T	549	2.0	0.482	2.8	LOS A	107	0.54	0.33	23.1
2R	R	375	1.9	0.373	3.8	LOS A	71	0.49	0.44	22.5
Approach		924	1.9	0.483	3.2	LOS A	107	0.52	0.37	22.9
All Vehicles		2479	2.0	0.833	7.6	LOS A	394	0.67	0.67	20.6

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Site: D=120' Ever vail pm 2025 total 1.2 bypass w/SR wb by
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Movement Summary

Ever Vail roundabout

D=120' PM 2025 total traffic 1.2 bypass w/ SR wb by snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Forest Rd										
3L	L	392	2.0	0.632	18.2	LOS B	175	0.88	1.11	17.1
8R	R	259	1.9	0.136	0.4	LOS A#	11#	0.00	0.05	24.4
Approach		651	2.0	0.632	11.1	LOS B	175	0.53	0.69	18.6
WB S Frontage Rd										
1L	L	259	1.9	0.963	29.4	LOS C	728	1.00	1.55	13.4
6T	T	813	2.0	0.963	19.0	LOS B	728	0.94	1.39	14.8
Approach		1072	2.0	0.963	21.5	LOS C	728	0.95	1.43	14.4
EB S Frontage Rd										
2T	T	608	2.0	0.546	3.0	LOS A	129	0.60	0.36	22.7
2R	R	416	1.9	0.423	4.0	LOS A	85	0.54	0.46	22.2
Approach		1023	2.0	0.546	3.4	LOS A	129	0.58	0.40	22.5
All Vehicles		2746	2.0	0.963	12.3	LOS B	728	0.71	0.87	17.6

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



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Site: D=120' Ever vail pm 2025 total 1.2 bypass w/SR wb by snow
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Movement Summary

S Frontage Rd Lionshead Pkg 1 PM 2025

1 lane roundabout

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Lionshead Pkg Dr										
3L	L	210	1.9	0.479	18.4	LOS B	115	0.92	1.05	19.9
8R	R	485	2.1	0.255	2.2	LOS C#	20#	0.00	0.28	23.9
Approach		695	2.0	0.480	7.1	LOS A	115	0.28	0.51	22.4
WB S Frontage Rd										
1L	L	235	2.1	0.967	30.0	LOS C	849	1.00	1.14	20.4
6T	T	705	2.0	0.966	24.4	LOS C	849	1.00	1.14	21.8
Approach		940	2.0	0.966	25.8	LOS C	849	1.00	1.14	21.4
EB S Frontage Rd										
2T	T	735	2.0	0.934	18.7	LOS B	690	1.00	1.20	19.4
2R	R	130	2.3	0.935	19.7	LOS B	690	1.00	1.20	19.1
Approach		865	2.1	0.933	18.8	LOS B	690	1.00	1.20	19.4
All Vehicles		2500	2.0	0.967	18.2	LOS B	849	0.80	0.99	20.9

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Site: SF&LHP1_p2025 wSR
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Movement Summary

S Frontage Rd Lionshead Pkg 1 PM 2025

1 lane roundabout snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Lionshead Pkg Dr										
3L	L	253	2.0	0.649	24.9	LOS C	182	1.00	1.19	18.3
8R	R	584	2.1	0.308	2.2	LOS C#	24#	0.00	0.28	23.9
Approach		838	2.0	0.648	9.1	LOS A	182	0.30	0.56	21.6
WB S Frontage Rd										
1L	L	283	2.1	1.225	124.4	LOS F	2398	1.00	2.83	8.7
6T	T	849	2.0	1.225	118.8	LOS F	2398	1.00	2.83	8.7
Approach		1132	2.0	1.226	120.2	LOS F	2398	1.00	2.83	8.7
EB S Frontage Rd										
2T	T	886	2.0	1.101	63.6	LOS E	1582	1.00	2.32	11.8
2R	R	157	1.9	1.099	64.6	LOS E	1582	1.00	2.32	11.7
Approach		1042	2.0	1.100	63.8	LOS E	1582	1.00	2.32	11.8
All Vehicles		3012	2.0	1.225	69.8	LOS E	2398	0.81	2.02	11.6

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



Site: SF&LHP1_p2025 snow wSR
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Movement Summary

S Frontage Rd Lionshead Pkg 2 PM 2025

2 lane roundabout

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Lionshead Pkg Dr										
3L	L	210	1.9	0.386	15.6	LOS B	84	0.87	0.95	20.9
8R	R	485	2.1	0.255	1.2	LOS C#	20#	0.00	0.16	24.4
Approach		695	2.0	0.386	5.5	LOS A	84	0.26	0.40	23.1
WB S Frontage Rd										
1L	L	235	2.1	0.328	13.7	LOS B	66	0.57	0.74	26.7
6T	T	705	2.0	0.629	7.6	LOS A	190	0.70	0.64	28.5
Approach		940	2.0	0.629	9.1	LOS A	190	0.67	0.67	28.0
EB S Frontage Rd										
2T	T	735	2.0	0.664	5.4	LOS A	212	0.73	0.64	23.3
2R	R	130	2.3	0.217	7.8	LOS A	38	0.54	0.65	23.0
Approach		865	2.1	0.664	5.8	LOS A	212	0.70	0.64	23.3
All Vehicles		2500	2.0	0.664	7.0	LOS A	212	0.57	0.58	24.8

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



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Movement Summary

S Frontage Rd Lionshead Pkg 2 PM 2025

2 lane roundabout - snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB Lionshead Pkg Dr										
3L	L	253	2.0	0.644	25.6	LOS C	189	1.00	1.20	18.3
8R	R	584	2.1	0.308	1.2	LOS C#	24#	0.00	0.16	24.4
Approach		838	2.0	0.644	8.6	LOS A	189	0.30	0.47	21.9
WB S Frontage Rd										
1L	L	283	2.1	0.419	14.5	LOS B	91	0.66	0.79	26.3
6T	T	849	2.0	0.797	11.3	LOS B	374	0.95	0.85	27.6
Approach		1132	2.0	0.797	12.1	LOS B	374	0.88	0.83	27.3
EB S Frontage Rd										
2T	T	886	2.0	0.841	10.6	LOS B	442	1.00	1.01	22.0
2R	R	157	1.9	0.278	8.6	LOS A	50	0.61	0.71	22.7
Approach		1042	2.0	0.842	10.3	LOS B	442	0.94	0.96	22.1
All Vehicles		3012	2.0	0.841	10.5	LOS B	442	0.74	0.78	23.8

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



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Movement Summary

S Frontage Rd E Lionshead Cir 1 wSR PM 2025

1 lane roundabout

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB E Lionshead Cir										
3L	L	125	1.6	0.206	11.8	LOS B	43	0.81	0.84	20.3
8R	R	90	2.2	0.169	9.0	LOS A	33	0.79	0.80	21.1
Approach		215	1.9	0.206	10.6	LOS B	43	0.80	0.82	20.6
WB S Frontage Rd										
1L	L	100	2.0	0.833	9.5	LOS A	414	0.91	0.65	20.8
6T	T	840	2.0	0.836	4.6	LOS A	414	0.91	0.61	21.8
Approach		940	2.0	0.835	5.1	LOS A	414	0.91	0.62	21.7
EB S Frontage Rd										
2T	T	750	2.0	0.725	3.1	LOS A	287	0.67	0.41	22.4
2R	R	95	2.1	0.725	4.2	LOS A	287	0.67	0.50	22.2
Approach		845	2.0	0.725	3.2	LOS A	287	0.67	0.42	22.4
All Vehicles		2000	2.0	0.836	4.9	LOS A	414	0.80	0.56	21.9

Symbols which may appear in this table:

Following Degree of Saturation
 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



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Movement Summary

S Frontage Rd E Lionshead Cir 1 wSR PM 2025

1 lane roundabout - snow

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
NB E Lionshead Cir										
3L	L	151	2.0	0.354	14.1	LOS B	83	0.97	0.97	19.6
8R	R	108	1.9	0.294	11.4	LOS B	64	0.94	0.95	20.2
Approach		259	1.9	0.353	13.0	LOS B	83	0.96	0.96	19.8
WB S Frontage Rd										
1L	L	120	1.7	1.043	40.5	LOS D	1420	1.00	1.48	13.9
6T	T	1012	2.0	1.041	35.6	LOS D	1420	1.00	1.48	14.4
Approach		1132	1.9	1.041	36.1	LOS D	1420	1.00	1.48	14.3
EB S Frontage Rd										
2T	T	904	2.0	0.888	5.3	LOS A	547	1.00	0.65	21.7
2R	R	114	1.8	0.891	6.4	LOS A	547	1.00	0.65	21.5
Approach		1018	2.0	0.888	5.5	LOS A	547	1.00	0.65	21.6
All Vehicles		2409	2.0	1.043	20.7	LOS C	1420	1.00	1.07	17.3

Symbols which may appear in this table:

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 # x = 1.00 for Short Lane with resulting Excess Flow
 * x = 1.00 due to minimum capacity

Following LOS
 # - Based on density for continuous movements

Following Queue
 # - Density for continuous movement



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