Appendix A: Existing Conditions Traffic Counts

Summary of Traffic Count
Transportation Development Division

Site: 20172010
County: Lane
City: Junction City
Milepoint:
Count Number: 1.00

Date: 9/14/2010
Hours: 3:00 PM-6:00 PM
Highway #: 531
Location: 1st Ave. @ Birch St. - 3 hr count 3-6P
Weather: Clear

	Summary By Movements								Entering Volumes		
Time of Day	N-E	N-W	E-N	E-W	W-N	W-E		TOTAL	North	East	West
15:00	6	6	6	42	2	24		86	12	48	26
15:15	7	3	3	33	1	23		70	10	36	24
15:30	3	1	4	43	4	25		80	4	47	29
15:45	4	2	7	28	7	25		73	6	35	32
16:00	7	3	11	40	3	38		102	10	51	41
16:15	12	3	9	45	5	27		101	15	54	32
16:30	9	2	7	34	3	30		85	11	41	33
16:45	5	4	4	29	5	24		71	9	33	29
17:00	9	2	8	42	9	42		112	11	50	51
17:15	4	4	3	27	4	34		76	8	30	38
17:30	4	0	5	41	3	34		87	4	46	37
17:45	3	3	6	39	5	25		81	6	45	30
Total Count	73	33	73	443	51	351		1024	106	516	402
24hr Factor	1	1	1	1	1	1		1	1	1	1
24hr Volume	73	33	73	443	51	351		1024	106	516	402

Summary of Traffic Count
Transportation Development Division

Site: 20082010
County: Lane
City: Junction City
Milepoint:
Count Number: 1.00

Date: 9/21/2010
Hours: 3:00 PM-6:00 PM
Highway #: 7075
Location: 1st Ave. @ Pitney Lane 3 hour count 3-6PM
Weather: Clear

	Summary By Movements								Entering Volumes		
Time of Day	E-S	E-W	S-E	S-W	W-E	W-S		TOTAL	East	South	West
15:00	2	26	2	4	17	6		57	28	6	23
15:15	6	21	2	5	21	2		57	27	7	23
15:30	3	14	6	1	16	2		42	17	7	18
15:45	8	25	4	3	16	7		63	33	7	23
16:00	7	34	6	3	20	0		70	41	9	20
16:15	4	23	5	6	23	1		62	27	11	24
16:30	5	38	1	3	21	4		72	43	4	25
16:45	5	37	2	3	16	1		64	42	5	17
17:00	6	34	3	3	18	2		66	40	6	20
17:15	4	31	2	4	17	5		63	35	6	22
17:30	4	32	2	3	19	4		64	36	5	23
17:45	3	28	6	3	21	3		64	31	9	24
Total Count	57	343	41	41	225	37		744	400	82	262
24hr Factor	1	1	1	1	1	1		1	1	1	1
24hr Volume	57	343	41	41	225	37		744	400	82	262

Summary of Traffic Count
Transportation Development Division

Site: 20122010
County: Lane
City: Junction City
Milepoint:
Count Number: 1.00

Date: 9/14/2010
Hours: 3:00 PM-6:00 PM
Highway #: 7075
Rd. 3 hr count 3-6P
Location: Maple St. - north leg Prairie Rd. -
Weather: Clear

	Summary By Movements														Entering Volumes			
Time of Day	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S		TOTAL	North	East	South	West
15:00	9	9	7	9	12	29	0	4	1	2	26	0		108	25	50	5	28
15:15	3	3	5	7	9	26	1	12	0	2	31	4		103	11	42	13	37
15:30	4	4	4	4	10	29	3	10	1	2	36	1		108	12	43	14	39
15:45	1	2	1	2	16	38	3	7	2	3	21	1		97	4	56	12	25
16:00	5	3	5	2	8	28	2	11	1	2	21	3		91	13	38	14	26
16:15	3	3	3	10	9	40	2	8	0	4	22	2		106	9	59	10	28
16:30	1	2	4	1	11	47	6	4	1	3	25	3		108	7	59	11	31
16:45	2	6	3	9	14	41	6	9	0	4	23	1		118	11	64	15	28
17:00	5	2	4	9	10	50	2	15	1	0	23	1		122	11	69	18	24
17:15	2	4	3	9	14	49	2	10	1	6	22	2		124	9	72	13	30
17:30	0	3	5	7	17	42	2	8	0	4	14	2		104	8	66	10	20
17:45	0	2	3	7	12	44	3	8	1	2	29	0		111	5	63	12	31
Total Count	35	43	47	76	142	463	32	106	9	34	293	20		1300	125	681	147	347
24hr Factor	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1
24hr Volume	35	43	47	76	142	463	32	106	9	34	293	20		1300	125	681	147	347

Summary of Traffic Count
Transportation Development Division

Site: 20012011
County: Lane
City: Junction City
Milepoint:
Count Number: 1.00

Date: 2/7/2011
Hours: 3:00 PM-6:00 PM
Highway #: 7075
Location: W 1st Ave. @ Oaklea Dr, - 3 hr count 3-6P
Weather: Cloudy

	Summary By Movements								Entering Volumes		
Time of Day	N-E	N-W	E-N	E-W	W-N	W-E		TOTAL	North	East	West
15:00	11	22	16	11	10	13		83	33	27	23
15:15	9	16	10	19	4	12		70	25	29	16
15:30	9	12	6	8	4	7		46	21	14	11
15:45	7	10	17	17	7	10		68	17	34	17
16:00	18	9	12	19	8	14		80	27	31	22
16:15	8	16	10	15	6	15		70	24	25	21
16:30	7	5	13	18	6	7		56	12	31	13
16:45	10	6	14	17	11	10		68	16	31	21
17:00	6	13	18	18	3	10		68	19	36	13
17:15	12	8	19	13	5	12		69	20	32	17
17:30	7	7	17	20	9	10		70	14	37	19
17:45	12	9	14	14	11	10		70	21	28	21
Total Count	116	133	166	189	84	130		818	249	355	214
24hr Factor	1	1	1	1	1	1		1	1	1	1
24hr Volume	116	133	166	189	84	130		818	249	355	214

Summary of Traffic Count
Transportation Development Division

Site:	20032010	Date:	9/20/2010
County:	Lane	Hours:	3:00 PM-6:00 PM
City:	Junction City	Highway #:	000
Milepoint:		Location:	W 6th Ave. @ Oaklea Dr. - 3 hr count 3-6PM
Count Number:	1.00	Weather:	Clear

	Summary By Movements								Entering Volumes		
Time of Day	N-E	N-S	E-N	E-S	S-N	S-E		TOTAL	North	East	South
15:00	11	15	10	17	12	2		67	26	27	14
15:15	3	10	3	5	18	5		44	13	8	23
15:30	2	19	2	1	20	1		45	21	3	21
15:45	1	14	1	3	23	4		46	15	4	27
16:00	0	14	5	6	19	2		46	14	11	21
16:15	0	25	2	4	22	3		56	25	6	25
16:30	4	19	4	2	18	0		47	23	6	18
16:45	2	21	1	4	23	4		55	23	5	27
17:00	3	19	3	2	28	5		60	22	5	33
17:15	4	18	3	2	39	4		70	22	5	43
17:30	3	23	9	6	20	2		63	26	15	22
17:45	6	23	4	6	31	2		72	29	10	33
Total Count	39	220	47	58	273	34		671	259	105	307
24hr Factor	1	1	1	1	1	1		1	1	1	1
24hr Volume	39	220	47	58	273	34		671	259	105	307

Summary of Traffic Count
Transportation Development Division

Site: 20102010
County: Lane
City: Junction City
Milepoint:
Count Number: 1.00

Date: 9/20/2010
Hours: 3:00 PM-6:00 PM
Highway #: 1628
Location: W 10 th Ave. @ Oaklea Rd. 3 hr count - 3-6P
Weather: Clear

	Summary By Movements								Entering Volumes		
Time of Day	N-E	N-S	E-N	E-S	S-N	S-E		TOTAL	North	East	South
15:00	3	14	3	7	16	5		48	17	10	21
15:15	1	12	3	3	15	3		37	13	6	18
15:30	6	17	2	4	17	7		53	23	6	24
15:45	5	11	7	2	16	6		47	16	9	22
16:00	3	11	4	6	21	7		52	14	10	28
16:15	6	18	1	4	13	9		51	24	5	22
16:30	3	22	4	3	12	7		51	25	7	19
16:45	2	21	3	1	16	12		55	23	4	28
17:00	4	18	4	4	21	7		58	22	8	28
17:15	2	20	6	2	28	13		71	22	8	41
17:30	7	32	2	5	25	3		74	39	7	28
17:45	5	18	3	5	29	7		67	23	8	36
Total Count	47	214	42	46	229	86		664	261	88	315
24hr Factor	1	1	1	1	1	1		1	1	1	1
24hr Volume	47	214	42	46	229	86		664	261	88	315

Summary of Traffic Count
Transportation Development Division

Site: 20152010
County: Lane
City: Junction City
Milepoint:
Count Number: 1.00

Date: 9/13/2010
Hours: 3:00 PM-6:00 PM
Highway #: 000
Oaklea Dr. @ W 18th Ave.
Location: 3 hr count 3-6P
Weather: Clear

	Summary By Movements								Entering Volumes		
Time of Day	N-E	N-S	E-N	E-S	S-N	S-E		TOTAL	North	East	South
15:00	2	11	5	21	10	12		61	13	26	22
15:15	4	4	3	5	10	5		31	8	8	15
15:30	3	5	2	15	7	7		39	8	17	14
15:45	4	8	2	4	7	5		30	12	6	12
16:00	2	7	3	15	7	4		38	9	18	11
16:15	6	8	6	5	7	11		43	14	11	18
16:30	3	5	6	11	6	5		36	8	17	11
16:45	3	9	8	11	13	19		63	12	19	32
17:00	3	10	3	18	8	8		50	13	21	16
17:15	5	14	3	13	12	7		54	19	16	19
17:30	3	11	4	19	11	9		57	14	23	20
17:45	3	7	10	17	6	11		54	10	27	17
Total Count	41	99	55	154	104	103		556	140	209	207
24hr Factor	1	1	1	1	1	1		1	1	1	1
24hr Volume	41	99	55	154	104	103		556	140	209	207

Summary of Traffic Count
Transportation Development Division

Site:	20142010	Date:	9/21/2010
County:	Lane	Hours:	3:00 PM-6:00 PM
City:	Junction City	Highway #:	091
			Albany-Junction City Hwy(OR99E) &
Milepoint:	108.76	Location:	W 18th Ave.
Count Number:	1.00	Weather:	Clear

	Summary By Movements														Entering Volumes			
Time of Day	NE-E	NE-S	NE-NW	E-NE	E-S	E-NW	S-NE	S-E	S-NW	NW-NE	NW-E	NW-S		TOTAL	North-East	East	South	North-West
15:00	4	64	13	4	2	5	54	3	54	14	4	57		278	81	11	111	75
15:15	1	57	6	4	0	4	81	3	38	13	1	45		253	64	8	122	59
15:30	5	74	9	4	3	6	74	4	40	18	4	51		292	88	13	118	73
15:45	8	89	16	4	5	5	96	4	48	19	2	53		349	113	14	148	74
16:00	5	107	13	4	1	10	79	3	52	12	3	61		350	125	15	134	76
16:15	4	91	9	2	1	8	86	3	53	19	3	57		336	104	11	142	79
16:30	4	85	19	2	3	4	81	2	57	13	3	61		334	108	9	140	77
16:45	3	87	12	4	2	11	96	3	55	22	6	48		349	102	17	154	76
17:00	8	81	23	3	2	12	88	3	60	20	11	70		381	112	17	151	101
17:15	3	67	14	3	2	7	86	2	64	22	6	49		325	84	12	152	77
17:30	5	65	16	6	2	8	94	3	58	21	4	70		352	86	16	155	95
17:45	7	68	13	6	1	7	66	1	49	20	3	44		285	88	14	116	67
Total Count	57	935	163	46	24	87	981	34	628	213	50	666		3884	1155	157	1643	929
24hr Factor	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1
24hr Volume	57	935	163	46	24	87	981	34	628	213	50	666		3884	1155	157	1643	929

Summary of Traffic Count
Transportation Development Division

Site: 20042010
County: Lane
City: Junction City

Date: 9/22/2010
Hours: 6:00 AM-10:00 PM
Highway #: 091

Milepoint: 109.76
Count Number: 1.00

Location: OR99 @ 1st Ave. site 360 - north leg
Weather: Clear

	Summary By Movements														Entering Volumes			
Time of Day	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S		TOTAL	North	East	South	West
6:00	2	74	1	3	0	1	47	1	0	10	0	18		157	77	4	48	28
6:15	1	97	7	5	9	0	76	0	2	10	0	27		234	105	14	78	37
6:30	0	145	5	5	12	3	78	1	7	12	4	39		311	150	20	86	55
6:45	4	110	8	13	4	6	69	1	15	11	7	29		277	122	23	85	47
7:00	9	123	10	9	11	5	102	3	12	13	11	28		336	142	25	117	52
7:15	8	165	8	18	15	11	104	0	27	14	10	35		415	181	44	131	59
7:30	11	164	14	9	26	10	122	1	9	17	11	40		434	189	45	132	68
7:45	10	152	17	23	15	11	106	1	29	26	14	30		434	179	49	136	70
8:00	22	177	18	15	6	9	101	1	11	12	18	38		428	217	30	113	68
8:15	10	134	9	11	10	6	102	1	7	9	11	28		338	153	27	110	48
8:30	13	120	11	10	8	3	94	1	11	11	6	21		309	144	21	106	38
8:45	15	110	5	11	3	6	109	1	19	13	5	16		313	130	20	129	34
9:00	43	423	44	51	41	36	366	5	50	63	41	66		1229	510	128	421	170
9:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
10:00	45	443	68	76	33	26	394	1	60	61	40	70		1317	556	135	455	171
10:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
11:00	50	455	74	63	44	33	442	5	61	79	27	75		1408	579	140	508	181
11:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
12:00	47	462	82	65	39	52	428	0	52	83	45	56		1411	591	156	480	184
12:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
13:00	34	462	61	57	46	44	442	0	67	67	33	60		1373	557	147	509	160
13:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:00	57	564	69	80	42	47	506	0	73	63	37	74		1612	690	169	579	174
14:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
15:00	17	129	17	16	19	9	118	0	23	16	7	16		387	163	44	141	39
15:15	18	150	19	20	11	15	132	0	31	19	11	14		440	187	46	163	44
15:30	14	127	26	14	14	18	144	2	32	22	11	15		439	167	46	178	48
15:45	10	128	14	19	19	16	184	1	25	22	12	17		467	152	54	210	51
16:00	22	178	24	15	12	21	155	0	36	26	10	24		523	224	48	191	60
16:15	18	144	28	16	16	9	166	0	27	14	7	21		466	190	41	193	42
16:30	18	158	24	17	14	9	173	1	30	23	9	18		494	200	40	204	50
16:45	14	133	22	23	13	29	185	1	37	23	15	18		513	169	65	223	56
17:00	24	126	21	15	15	15	173	2	36	34	16	30		507	171	45	211	80
17:15	17	135	21	21	12	15	184	1	35	22	9	24		496	173	48	220	55
17:30	16	122	22	19	7	14	174	0	25	17	8	13		437	160	40	199	38
17:45	26	117	27	27	10	15	158	0	27	13	7	12		439	170	52	185	32
18:00	52	402	86	48	22	44	449	5	75	39	23	65		1310	540	114	529	127
18:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
19:00	41	215	81	50	9	41	292	2	43	70	22	22		888	337	100	337	114
19:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
20:00	32	184	50	31	10	35	225	2	55	30	15	20		689	266	76	282	65
20:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
21:00	22	104	33	21	9	11	143	2	32	15	10	16		418	159	41	177	41
21:15	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Total Count	742	6932	1026	896	576	625	6743	42	1081	979	512	1095		21249	8700	2097	7866	2586
24hr Factor	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1		1.1	1.1	1.1	1.1	1.1
24hr Volume	817	7626	1129	986	634	688	7418	47	1190	1077	564	1205		23374	9570	2307	8653	2845

Summary of Traffic Count
Transportation Development Division

Site: 20112010
County: Lane
City: Junction City

Date: 9/22/2010
Hours: 3:00 PM-6:00 PM
Highway #: 091

Milepoint: 109.47
Count Number: 1.00

Location: OR99 2 6th Ave. - 3 hr count 3-6P
Weather: Clear

	Summary By Movements														Entering Volumes			
Time of Day	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S		TOTAL	North	East	South	West
15:00	11	138	3	18	12	9	130	12	3	11	19	16		382	152	39	145	46
15:15	7	159	3	17	16	12	157	10	3	10	8	10		412	169	45	170	28
15:30	15	158	2	18	16	7	180	9	3	12	8	6		434	175	41	192	26
15:45	10	137	6	22	17	13	225	10	2	7	11	2		462	153	52	237	20
16:00	10	177	3	20	18	2	189	15	1	3	8	5		451	190	40	205	16
16:15	13	179	3	15	12	7	193	12	2	4	4	7		451	195	34	207	15
16:30	11	176	5	19	21	10	191	18	5	6	6	4		472	192	50	214	16
16:45	10	147	4	16	13	14	232	22	1	7	4	9		479	161	43	255	20
17:00	3	142	1	15	27	7	201	17	1	5	13	9		441	146	49	219	27
17:15	8	152	9	22	18	7	207	21	4	5	13	6		472	169	47	232	24
17:30	5	137	7	15	14	14	207	14	5	5	8	8		439	149	43	226	21
17:45	13	151	8	18	12	14	204	14	4	6	6	10		460	172	44	222	22
Total Count	116	1853	54	215	196	116	2316	174	34	81	108	92		5355	2023	527	2524	281
24hr Factor	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1
24hr Volume	116	1853	54	215	196	116	2316	174	34	81	108	92		5355	2023	527	2524	281

Summary of Traffic Count
Transportation Development Division

Site: 20052010
County: Lane
City: Junction City
Milepoint: 109.25
Count Number: 1.00

Date: 9/13/2010
Hours: 3:00 PM-6:00 PM
Highway #: 091
Location: OR99 @ 10th Ave. - 3 hr count 3-6PM
Weather: Clear

	Summary By Movements														Entering Volumes			
Time of Day	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S		TOTAL	North	East	South	West
15:00	5	142	4	10	20	10	140	9	8	6	19	16		389	151	40	157	41
15:15	3	141	6	17	10	9	135	7	3	3	11	14		359	150	36	145	28
15:30	5	110	5	14	11	18	131	9	3	4	10	13		333	120	43	143	27
15:45	3	155	4	14	10	10	155	7	9	9	10	12		398	162	34	171	31
16:00	7	164	2	17	13	8	174	8	6	5	7	9		420	173	38	188	21
16:15	2	166	1	12	9	8	193	4	8	8	7	15		433	169	29	205	30
16:30	7	129	6	14	8	4	162	10	12	9	11	5		377	142	26	184	25
16:45	4	136	5	21	2	13	173	6	8	7	10	10		395	145	36	187	27
17:00	4	131	4	20	7	9	182	12	11	4	10	16		410	139	36	205	30
17:15	10	153	1	26	7	9	201	6	9	8	9	9		448	164	42	216	26
17:30	7	129	9	14	5	12	145	15	7	7	6	12		368	145	31	167	25
17:45	3	140	8	19	6	10	169	7	12	7	7	12		400	151	35	188	26
Total Count	60	1696	55	198	108	120	1960	100	96	77	117	143		4730	1811	426	2156	337
24hr Factor	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1
24hr Volume	60	1696	55	198	108	120	1960	100	96	77	117	143		4730	1811	426	2156	337

Summary of Traffic Count
Transportation Development Division

Site:	20092010	Date:	9/15/2010
County:	Lane	Hours:	3:00 PM-6:00 PM
City:	Junction City	Highway #:	091
Milepoint:	110.90	Location:	OR99 @ Prairie Rd. 3 hr count 3-6P
Count Number:	1.00	Weather:	Clear

	Summary By Movements								Entering Volumes		
Time of Day	N-S	N-NW	S-N	S-NW	NW-N	NW-S		TOTAL	North	South	North-West
15:00	177	1	162	5	1	4		350	178	167	5
15:15	161	2	179	1	2	1		346	163	180	3
15:30	155	1	174	2	0	0		332	156	176	0
15:45	144	0	188	2	2	0		336	144	190	2
16:00	181	0	183	0	2	2		368	181	183	4
16:15	160	0	221	1	1	1		384	160	222	2
16:30	174	2	207	0	2	1		386	176	207	3
16:45	123	0	212	6	2	2		345	123	218	4
17:00	215	1	188	2	1	2		409	216	190	3
17:15	158	0	228	3	1	1		391	158	231	2
17:30	165	2	199	3	0	0		369	167	202	0
17:45	139	1	222	8	0	0		370	140	230	0
Total Count	1952	10	2363	33	14	14		4386	1962	2396	28
24hr Factor	1	1	1	1	1	1		1	1	1	1
24hr Volume	1952	10	2363	33	14	14		4386	1962	2396	28

Summary of Traffic Count
Transportation Development Division

Site: 20182010
County: Lane
City:
Milepoint: 111.28
Count Number: 1.00

Date: 9/15/2010
Hours: 3:00 PM-6:00 PM
Highway #: 091
count 3-6P
Location:
Weather: Clear

Time of Day	Summary By Movements														Entering Volumes			
	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S		TOTAL	North	East	South	West
15:00	29	142	12	31	1	6	115	7	22	15	3	13		396	183	38	144	31
15:15	16	139	13	22	1	5	139	2	16	15	5	7		380	168	28	157	27
15:30	26	112	14	18	1	7	137	2	24	6	13	20		380	152	26	163	39
15:45	11	121	12	32	0	8	153	3	18	10	6	16		390	144	40	174	32
16:00	12	134	18	27	0	7	157	1	14	12	6	25		413	164	34	172	43
16:15	22	134	12	20	3	14	173	1	28	13	7	18		445	168	37	202	38
16:30	19	124	19	44	0	9	166	1	16	13	2	18		431	162	53	183	33
16:45	22	158	18	28	3	16	164	5	16	18	3	26		477	198	47	185	47
17:00	33	127	24	32	1	13	153	3	21	12	3	17		439	184	46	177	32
17:15	15	122	12	37	4	10	183	2	20	8	7	11		431	149	51	205	26
17:30	26	95	16	38	4	10	150	0	13	5	4	11		372	137	52	163	20
17:45	18	0	9	38	0	6	164	0	16	15	0	6		272	27	44	180	21
Total Count	249	1408	179	367	18	111	1854	27	224	142	59	188		4826	1836	496	2105	389
24hr Factor	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1
24hr Volume	249	1408	179	367	18	111	1854	27	224	142	59	188		4826	1836	496	2105	389

Summary of Traffic Count
Transportation Development Division

Site:	20132010	Date:	9/21/2010
County:	Lane	Hours:	3:00 PM-6:00 PM
City:	RURAL	Highway #:	091
Milepoint:	112.77	Location:	OR99 @ Milliron Rd. 3 hr count 3-6P
Count Number:	1.00	Weather:	Clear

	Summary By Movements														Entering Volumes			
Time of Day	N-E	N-S	N-W	E-N	E-S	E-W	S-N	S-E	S-W	W-N	W-E	W-S		TOTAL	North	East	South	West
15:00	2	135	0	4	3	0	144	0	1	3	0	0		292	137	7	145	3
15:15	3	130	1	7	4	0	143	4	1	1	0	0		294	134	11	148	1
15:30	3	126	3	1	0	0	164	4	0	3	0	3		307	132	1	168	6
15:45	0	156	2	2	5	1	186	5	1	3	1	1		363	158	8	192	5
16:00	5	153	1	2	1	0	182	1	0	2	1	2		350	159	3	183	5
16:15	3	144	1	4	1	0	178	3	1	2	2	0		339	148	5	182	4
16:30	2	156	1	2	5	0	199	4	1	0	0	2		372	159	7	204	2
16:45	0	149	2	2	1	0	177	3	0	3	0	0		337	151	3	180	3
17:00	1	159	1	2	4	1	161	2	0	1	0	1		333	161	7	163	2
17:15	1	158	2	3	2	0	195	2	0	3	0	2		368	161	5	197	5
17:30	1	135	1	0	2	0	180	3	1	2	0	2		327	137	2	184	4
17:45	3	126	1	1	3	0	163	1	0	0	1	0		299	130	4	164	1
Total Count	24	1727	16	30	31	2	2072	32	6	23	5	13		3981	1767	63	2110	41
24hr Factor	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1
24hr Volume	24	1727	16	30	31	2	2072	32	6	23	5	13		3981	1767	63	2110	41

Appendix B: Seasonal Factor Methodology

Seasonal Factor Calculation Methodology

Guidelines for determining the appropriate traffic volumes to use in transportation impact analysis have been set forth by the Oregon Department of Transportation (ODOT). The guidelines specify that in rural areas, the 30th Highest Hourly Volumes (30th HV) should be used for design and analysis purposes.[1] Because the 30th HV have been shown to correspond to the typical weekday peak hour volumes during the peak month of the year, PM peak hour counts collected during the peak month can be used directly. Counts collected during an off-peak month must be adjusted by a seasonal factor.

The seasonal factor typically can be determined from yearly count data, which can be obtained by analyzing the records of a nearby ODOT Automatic Traffic Recorder (ATR). When there are no ATR stations within the study corridor to provide reliable annual traffic data, ODOT's Seasonal Trend Table[2] is used to develop a seasonal factor. The Seasonal Trend Table, developed by ODOT's Transportation Planning Analysis Unit, was constructed by averaging seasonal trend groupings from all ATRs across the state.

Applicable Seasonal Factor for Junction City

To determine the seasonal factor for the section of Highway 99 through Junction City, data from the following trend groupings were averaged:

- Summer
- Commuter

The applicable factors and calculations are shown on the following page. As shown, a seasonal factor of 1.025 (or 2.5%) should be applied to counts made in early September.

[1] *Developing Design Hour Volumes*, ODOT Analysis Procedure Manual, Chapter 4, September 2006.
[2] *2008 Seasonal Trend Table*. Retrieved October 2, 2008 from ODOT: http://www.oregon.gov/ODOT/TD/TPAU/A_Data.shtml

2008 SEASONAL TREND TABLE (Second Half of Year)													Peak Period Seasonal Factor
	1-Jul	15-Jul	1-Aug	15-Aug	1-Sep	15-Sep	1-Oct	15-Oct	1-Nov	15-Nov	1-Dec	15-Dec	
INTERSTATE URBANIZED	0.919	0.929	0.917	0.906	0.924	0.943	0.941	0.939	0.953	0.968	0.994	1.019	0.9062
INTERSTATE NONURBANIZED	0.904	0.881	0.870	0.859	0.908	0.956	0.995	1.034	1.045	1.055	1.117	1.179	0.8594
COMMUTER	0.910	0.918	0.909	0.900	0.911	0.923	0.927	0.932	0.960	0.989	1.020	1.052	0.8999
COASTAL DESTINATION	0.897	0.839	0.838	0.836	0.879	0.922	0.988	1.053	1.103	1.153	1.181	1.209	0.8362
COASTAL DESTINATION ROUTE	0.877	0.780	0.783	0.785	0.858	0.930	1.049	1.167	1.219	1.270	1.386	1.501	0.7797
AGRICULTURE	0.885	0.883	0.874	0.866	0.885	0.904	0.928	0.952	0.990	1.028	1.078	1.128	0.8655
RECREATIONAL SUMMER	0.830	0.765	0.771	0.778	0.825	0.872	0.998	1.123	1.283	1.444	1.622	1.800	0.7654
RECREATIONAL SUMMER WINTER	0.962	0.874	0.887	0.901	1.069	1.236	1.536	1.835	1.853	1.871	1.472	1.074	0.8742
RECREATIONAL WINTER	1.475	1.275	1.239	1.203	1.312	1.422	1.832	2.241	2.594	2.947	1.886	0.825	0.8245
SUMMER	0.870	0.846	0.846	0.845	0.878	0.911	0.952	0.994	1.041	1.088	1.153	1.217	0.8454
SUMMER < 2500	0.840	0.827	0.829	0.832	0.837	0.843	0.894	0.945	1.028	1.111	1.237	1.363	0.8267

Average for 1-Sep 0.895

Average of Peak Seasonal Factors 0.873

$$\frac{X}{X} = 1.025$$

Appendix C: Level of Service Descriptions

TRAFFIC LEVELS OF SERVICE

Analysis of traffic volumes is useful in understanding the general nature of traffic in an area, but by itself indicates neither the ability of the street network to carry additional traffic nor the quality of service afforded by the street facilities. For this, the concept of *level of service* has been developed to subjectively describe traffic performance. Level of service can be measured at intersections and along key roadway segments.

Level of service categories are similar to report card ratings for traffic performance. Intersections are typically the controlling bottlenecks of traffic flow and the ability of a roadway system to carry traffic efficiently is generally diminished in their vicinities. Levels of Service A, B and C indicate conditions where traffic moves without significant delays over periods of peak travel demand. Level of service D and E are progressively worse peak hour operating conditions and F conditions represent where demand exceeds the capacity of an intersection. Most urban communities set level of service D as the minimum acceptable level of service for peak hour operation and plan for level of service C or better for all other times of the day. The *Highway Capacity Manual* provides level of service calculation methodology for both intersections and arterials.[1] The following three sections provide interpretations of the analysis approaches.

---

[1] *2000 Highway Capacity Manual*, Transportation Research Board, Washington D.C., 2000, Chapters 16 and 17.

ALL-WAY STOP CONTROLLED INTERSECTIONS

Unsignalized intersections and all-way stop controlled intersections are each subject to a separate capacity analysis methodology. All-way stop controlled intersection operations are reported by leg of the intersection.

This method calculates a delay value for each approach to the intersection. The *2000 Highway Capacity Manual* describes the detailed methodology. The following table describes the amount of delay associated with each level of service.

Delay (Seconds)	Level of Service
0 - 10	A
10 - 15	B
15 - 25	C
25 - 35	D
35 - 50	E
> 50	F

Source: 2000 *Highway Capacity Manual*, Transportation Research Board, Washington, D.C.

UNSIGNALIZED INTERSECTIONS (Two-Way Stop Controlled)

Unsignalized intersection level of service is reported for the major street and minor street (generally, left turn movements). The method assesses available and critical gaps in the traffic stream which make it possible for side street traffic to enter the main street flow. The *2000 Highway Capacity Manual* describes the detailed methodology. It is not unusual for an intersection to experience level of service E or F conditions for the minor street left turn movement. It should be understood that, often, a poor level of service is experienced by only a few vehicles and the intersection as a whole operates acceptably.

Unsignalized intersection levels of service are described in the following table.

Level of Service	Expected Delay	(Sec/Veh)
A	Little or no delay	0-10.0
B	Short traffic delay	>10.1-15.0
C	Average traffic delays	>15.1-25.0
D	Long traffic delays	>25.1-35.0
E	Very long traffic delays	>35.1-50.0
F	Extreme delays potentially affecting other traffic movements in the intersection	> 50

Source: 2000 *Highway Capacity Manual*, Transportation Research Board Washington, D.C.

SIGNALIZED INTERSECTIONS

For signalized intersections, level of service is evaluated based upon average vehicle delay experienced by vehicles entering an intersection. Control delay (or signal delay) includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. In previous versions of this chapter of the HCM (1994 and earlier), delay included only stopped delay. As delay increases, the level of service decreases. Calculations for signalized and unsignalized intersections are different due to the variation in traffic control. The *2000 Highway Capacity Manual* provides the basis for these calculations.

Level of Service	Delay (secs.)	Description
A	≤10.00	**Free Flow/Insignificant Delays:** No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Most vehicles do not stop at all. Progression is extremely favorable and most vehicles arrive during the green phase.
B	10.1-20.0	**Stable Operation/Minimal Delays:** An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles. This level generally occurs with good progression, short cycle lengths, or both.
C	20.1-35.0	**Stable Operation/Acceptable Delays:** Major approach phases fully utilized. Most drivers feel somewhat restricted. Higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level, and the number of vehicles stopping is significant.
D	35.1-55.0	**Approaching Unstable/Tolerable Delays:** The influence of congestion becomes more noticeable. Drivers may have to wait through more than one red signal indication. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. The proportion of vehicles not stopping declines, and individual cycle failures are noticeable.
E	55.1-80.0	**Unstable Operation/Significant Delays:** Volumes at or near capacity. Vehicles may wait though several signal cycles. Long queues form upstream from intersection. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are a frequent occurrence.
F	≥80.0	**Forced Flow/Excessive Delays:** Represents jammed conditions. Queues may block upstream intersections. This level occurs when arrival flow rates exceed intersection capacity, and is considered to be unacceptable to most drivers. Poor progression, long cycle lengths, and v/c ratios approaching 1.0 may contribute to these high delay levels.

Source: *2000 Highway Capacity Manual*, Transportation Research Board, Washington D.C.

ARTERIAL LEVEL OF SERVICE

Arterial level of service is based on the average travel speed for the segment, section, or entire arterial under consideration. The average travel speed is computed from the running time on the arterial segment(s) and the intersection approach delay. It is strongly influenced by the number of signals per mile and the average intersection delay. On a given facility, factors such as inappropriate signal timing, poor progression, and increasing traffic flow can substantially degrade the arterial LOS.[2]

Arterial levels of service are summarized in the following table.

Arterial Levels of Service

Arterial Class	**I**	**II**	**III**
Range of Free Flow Speeds (mph)	45 to 35	35 to 30	35 to 25
Typical Free Flow Speed (mph)	40 mph	33 mph	27 mph
Level of Service	**Average Travel Speed (mph)**		
A	35	30	25
B	28	24	19
C	22	18	13
D	17	14	9
E	13	10	7
F	< 13	< 10	< 7

[2] *1994 Highway Capacity Manual*, Special Report 209, Transportation Research Board, Washington D.C., 1994, Chapter 11.

The three arterial classes (I, II, and III) used to find the appropriate level of service are based on design and functional characteristics shown in the table below.

Definition of functional categories

Functional Category	Characteristics
Principal Arterial	● Mobility very important ● Heavily restricted access ● Connected to freeways, important activity centers, major traffic generators ● Relatively long trips between above points and through trips entering, leaving,and going through the city.
Minor Arterial	● Mobility important ● Substantially restricted access ● Connected to principal arterials ● Trips of moderate lengths within relatively small geographical area

Design Category	Characteristics
Suburban	● Low access density ● Multilane divided; undivided or two-lane with shoulders arterial ● No parking ● Separate left turn lanes ● 1 to 5 signals per mile ● 40 to 45 mph speed limits ● Little Pedestrian activity ● Low to medium roadside development density
Intermediate	● Moderate access density ● Multilane divided or undivided; one way or two lane arterial ● Some parking ● Usually separate left turn lanes ● 4 to 10 signals per mile ● 30 to 40 mph speed limits ● Some pedestrian activity ● Medium to moderate roadside development density
Urban	● High access density ● Undivided one way; two way, two or more lanes arterial ● Much parking ● Some separate left-turn lanes ● 6 to 12 signals per mile ● 25 to 35 mph speed limits ● Usually pedestrian activity ● High density roadside development

Once the arterial is classified using the functional and design categories, the table below can be used to find the associated arterial class.

Arterial Class According to Design and Functional Categories

	FUNCTIONAL CATEGORY	
DESIGN CATEGORY	**PRINCIPAL ARTERIAL**	**MINOR ARTERIAL**
TYPICAL SUBURBAN	I	II
INTERMEDIATE	II	II OR III
TYPICAL URBAN	II OR III	III

Appendix D: 2010 Existing Conditions Capacity Analysis - Synchro Output

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	55	20	40	40	15	40
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Hourly flow rate (vph)	68	25	49	49	19	49
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	160	74			99	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	160	74			99	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	97			99	
cM capacity (veh/h)	820	979			1507	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	93	99	68
Volume Left	68	0	19
Volume Right	25	49	0
cSH	857	1700	1507
Volume to Capacity	0.11	0.06	0.01
Queue Length 95th (ft)	9	0	1
Control Delay (s)	9.7	0.0	2.1
Lane LOS	A		A
Approach Delay (s)	9.7	0.0	2.1
Approach LOS	A		

Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	21.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	10	20	80	40	10	85
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	12	24	96	48	12	102
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	248	121			146	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	248	121			146	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	97			99	
cM capacity (veh/h)	738	934			1448	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	36	145	114
Volume Left	12	0	12
Volume Right	24	48	0
cSH	858	1700	1448
Volume to Capacity	0.04	0.09	0.01
Queue Length 95th (ft)	3	0	1
Control Delay (s)	9.4	0.0	0.8
Lane LOS	A		A
Approach Delay (s)	9.4	0.0	0.8
Approach LOS	A		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	22.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	10	10	115	15	15	80
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	12	12	139	18	18	96
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	281	149			158	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	281	149			158	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	99			99	
cM capacity (veh/h)	704	903			1433	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	24	157	114
Volume Left	12	0	18
Volume Right	12	18	0
cSH	791	1700	1433
Volume to Capacity	0.03	0.09	0.01
Queue Length 95th (ft)	2	0	1
Control Delay (s)	9.7	0.0	1.3
Lane LOS	A		A
Approach Delay (s)	9.7	0.0	1.3
Approach LOS	A		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	26.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	30	95	115	90	55	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	100	121	95	58	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	216				332	168
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	216				332	168
tC, single (s)	4.1				6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.3
p0 queue free %	98				91	95
cM capacity (veh/h)	1366				640	881

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	132	216	100
Volume Left	32	0	58
Volume Right	0	95	42
cSH	1366	1700	723
Volume to Capacity	0.02	0.13	0.14
Queue Length 95th (ft)	2	0	12
Control Delay (s)	2.0	0.0	10.8
Lane LOS	A		B
Approach Delay (s)	2.0	0.0	10.8
Approach LOS			B

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	35.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	135	15	25	190	15	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)	147	16	27	207	16	16
Pedestrians				2	1	
Lane Width (ft)				12.0	12.0	
Walking Speed (ft/s)				4.0	4.0	
Percent Blockage				0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			164		417	158
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			164		417	158
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		97	98
cM capacity (veh/h)			1419		584	891

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	163	234	33
Volume Left	0	27	16
Volume Right	16	0	16
cSH	1700	1419	706
Volume to Capacity	0.10	0.02	0.05
Queue Length 95th (ft)	0	1	4
Control Delay (s)	0.0	1.0	10.3
Lane LOS		A	B
Approach Delay (s)	0.0	1.0	10.3
Approach LOS			B

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	155	5	50	220	30	5	15	50	15	15	15
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	163	5	53	232	32	5	16	53	16	16	16
Pedestrians					7			1			2	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					1			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1166							
pX, platoon unblocked												
vC, conflicting volume	265			169			575	569	174	620	556	249
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	265			169			575	569	174	620	556	249
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			96			99	96	94	96	96	98
cM capacity (veh/h)	1308			1407			395	412	869	351	420	793

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	184	316	74	47
Volume Left	16	53	5	16
Volume Right	5	32	53	16
cSH	1308	1407	657	462
Volume to Capacity	0.01	0.04	0.11	0.10
Queue Length 95th (ft)	1	3	9	9
Control Delay (s)	0.8	1.6	11.2	13.7
Lane LOS	A	A	B	B
Approach Delay (s)	0.8	1.6	11.2	13.7
Approach LOS			B	B

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	80	30	245	10	35	15	270	400	10	20	340	75
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0	3.5		4.0		3.5	4.0		3.5	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85		0.97		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		0.99		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1646	1750	1417		1678		1630	3188		1662	3260	1444
Flt Permitted	0.71	1.00	1.00		0.96		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1238	1750	1417		1617		1630	3188		1662	3260	1444
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	88	33	269	11	38	16	297	440	11	22	374	82
RTOR Reduction (vph)	0	0	147	0	12	0	0	1	0	0	0	54
Lane Group Flow (vph)	88	33	122	0	53	0	297	450	0	22	374	28
Heavy Vehicles (%)	1%	0%	5%	0%	0%	0%	2%	4%	0%	0%	2%	3%
Turn Type	custom		custom	Perm			Prot			Prot		Perm
Protected Phases					4		1	6		5	2	
Permitted Phases	8	8	1 8	4								2
Actuated Green, G (s)	9.6	9.6	28.8		9.6		15.2	32.6		1.1	18.5	18.5
Effective Green, g (s)	9.6	9.6	24.8		9.6		15.2	32.6		1.1	18.5	18.5
Actuated g/C Ratio	0.18	0.18	0.45		0.18		0.28	0.59		0.02	0.34	0.34
Clearance Time (s)	4.0	4.0			4.0		3.5	4.0		3.5	4.0	4.0
Vehicle Extension (s)	2.5	2.5			2.5		2.5	4.6		2.5	4.6	4.6
Lane Grp Cap (vph)	217	307	641		283		452	1897		33	1101	487
v/s Ratio Prot							c0.18	0.14		0.01	c0.11	
v/s Ratio Perm	c0.07	0.02	0.09		0.03							0.02
v/c Ratio	0.41	0.11	0.19		0.19		0.66	0.24		0.67	0.34	0.06
Uniform Delay, d1	20.1	19.0	9.0		19.3		17.5	5.2		26.7	13.6	12.3
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.9	0.1	0.1		0.2		3.1	0.1		37.4	0.3	0.1
Delay (s)	21.0	19.1	9.1		19.5		20.6	5.4		64.0	13.9	12.3
Level of Service	C	B	A		B		C	A		E	B	B
Approach Delay (s)		12.6			19.5			11.4			16.0	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	54.8	Sum of lost time (s)	11.5
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	40	40	25	35	85	40	760	35	25	580	15
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.95			0.92			0.99			1.00	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1624			1564			3203			3214	
Flt Permitted		0.75			0.91			0.89			0.90	
Satd. Flow (perm)		1236			1438			2869			2898	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	33	44	44	27	38	93	44	835	38	27	637	16
RTOR Reduction (vph)	0	31	0	0	78	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	90	0	0	80	0	0	915	0	0	679	0
Confl. Peds. (#/hr)	7		9	9		7	3		7	7		3
Heavy Vehicles (%)	0%	0%	0%	4%	0%	0%	0%	3%	0%	0%	3%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		10.8			10.8			69.2			69.2	
Effective Green, g (s)		10.8			10.8			69.2			69.2	
Actuated g/C Ratio		0.12			0.12			0.79			0.79	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		2.5			2.5			6.1			6.1	
Lane Grp Cap (vph)		152			176			2256			2279	
v/s Ratio Prot												
v/s Ratio Perm		c0.07			0.06			c0.32			0.23	
v/c Ratio		0.59			0.45			0.41			0.30	
Uniform Delay, d1		36.5			35.9			2.9			2.6	
Progression Factor		1.00			1.00			0.87			1.00	
Incremental Delay, d2		5.1			1.4			0.5			0.3	
Delay (s)		41.6			37.2			3.0			3.0	
Level of Service		D			D			A			A	
Approach Delay (s)		41.6			37.2			3.0			3.0	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	8.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	88.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	40	30	85	40	75	10	890	85	35	660	20
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.96			0.95			0.99			1.00	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1618			1600			3215			3181	
Flt Permitted		0.88			0.81			0.95			0.87	
Satd. Flow (perm)		1443			1320			3049			2772	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	26	41	31	88	41	77	10	918	88	36	680	21
RTOR Reduction (vph)	0	24	0	0	30	0	0	5	0	0	1	0
Lane Group Flow (vph)	0	74	0	0	176	0	0	1011	0	0	736	0
Confl. Peds. (#/hr)	16		11	11		16	11		2	2		11
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	4%	0%	0%	0%	0%	0%	0%	2%	0%	0%	4%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		16.1			16.1			63.9			63.9	
Effective Green, g (s)		16.1			16.1			63.9			63.9	
Actuated g/C Ratio		0.18			0.18			0.73			0.73	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		2.5			2.5			6.1			6.1	
Lane Grp Cap (vph)		264			242			2214			2013	
v/s Ratio Prot												
v/s Ratio Perm		0.05			c0.13			c0.33			0.27	
v/c Ratio		0.28			0.73			0.46			0.37	
Uniform Delay, d1		31.0			33.9			4.9			4.5	
Progression Factor		1.00			1.00			1.00			0.85	
Incremental Delay, d2		0.4			9.7			0.7			0.5	
Delay (s)		31.4			43.6			5.6			4.3	
Level of Service		C			D			A			A	
Approach Delay (s)		31.4			43.6			5.6			4.3	
Approach LOS		C			D			A			A	

Intersection Summary			
HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	88.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	50	95	60	75	80	150	765	5	80	590	95
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	5.0		4.0	5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.90		1.00	0.92		1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1662	1553		1597	1569		1662	3225		1662	3143	
Flt Permitted	0.47	1.00		0.50	1.00		0.39	1.00		0.29	1.00	
Satd. Flow (perm)	822	1553		841	1569		675	3225		500	3143	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	112	51	97	61	77	82	153	781	5	82	602	97
RTOR Reduction (vph)	0	75	0	0	42	0	0	0	0	0	9	0
Lane Group Flow (vph)	112	73	0	61	117	0	153	786	0	82	690	0
Confl. Peds. (#/hr)			1	1					1	1		
Confl. Bikes (#/hr)			1			3			1			
Heavy Vehicles (%)	0%	0%	1%	4%	1%	3%	0%	3%	0%	0%	4%	1%
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	16.7	16.7		16.7	16.7		72.1	71.1		56.5	56.5	
Effective Green, g (s)	16.7	16.7		16.7	16.7		72.1	71.1		56.5	56.5	
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.67	0.66		0.53	0.53	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	6.1		2.0	6.1	
Lane Grp Cap (vph)	128	242		131	245		647	2143		331	1660	
v/s Ratio Prot		0.05			0.07		0.05	c0.24		0.01	c0.22	
v/s Ratio Perm	c0.14			0.07			0.11			0.12		
v/c Ratio	0.88	0.30		0.47	0.48		0.24	0.37		0.25	0.42	
Uniform Delay, d1	44.1	40.0		41.1	41.2		7.4	8.0		13.0	15.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	43.6	0.5		1.9	1.1		0.1	0.5		0.1	0.8	
Delay (s)	87.7	40.5		43.0	42.2		7.5	8.4		13.2	16.0	
Level of Service	F	D		D	D		A	A		B	B	
Approach Delay (s)		60.8			42.4			8.3			15.7	
Approach LOS		E			D			A			B	

Intersection Summary			
HCM Average Control Delay	20.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	107.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	20	140	140	25	30	15
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Hourly flow rate (vph)	26	182	182	32	39	19
Pedestrians					2	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	216				434	200
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	216				434	200
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				93	98
cM capacity (veh/h)	1351				571	845

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	208	214	58
Volume Left	26	0	39
Volume Right	0	32	19
cSH	1351	1700	640
Volume to Capacity	0.02	0.13	0.09
Queue Length 95th (ft)	1	0	8
Control Delay (s)	1.1	0.0	11.2
Lane LOS	A		B
Approach Delay (s)	1.1	0.0	11.2
Approach LOS			B

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	32.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	5	5	10	885	710	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	5	5	11	941	755	5
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	1250	380	761			
vC1, stage 1 conf vol	758					
vC2, stage 2 conf vol	492					
vCu, unblocked vol	1250	380	761			
tC, single (s)	7.1	6.9	4.1			
tC, 2 stage (s)	6.1					
tF (s)	3.7	3.3	2.2			
p0 queue free %	98	99	99			
cM capacity (veh/h)	331	623	860			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	11	11	471	471	504	257
Volume Left	5	11	0	0	0	0
Volume Right	5	0	0	0	0	5
cSH	433	860	1700	1700	1700	1700
Volume to Capacity	0.02	0.01	0.28	0.28	0.30	0.15
Queue Length 95th (ft)	2	1	0	0	0	0
Control Delay (s)	13.5	9.2	0.0	0.0	0.0	0.0
Lane LOS	B	A				
Approach Delay (s)	13.5	0.1			0.0	
Approach LOS	B					

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	36.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	15	75	10	50	150	75	705	10	95	565	75
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		5.0	5.0		5.0	5.0	5.0	6.0		5.0	6.0	6.0
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.99	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1539	1444		1680	1488	1599	3222		1646	3197	1377
Flt Permitted		0.73	1.00		0.94	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1165	1444		1592	1488	1599	3222		1646	3197	1377
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	59	16	81	11	54	161	81	758	11	102	608	81
RTOR Reduction (vph)	0	0	68	0	0	136	0	1	0	0	0	24
Lane Group Flow (vph)	0	75	13	0	65	25	81	768	0	102	608	57
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	12%	0%	3%	0%	4%	0%	4%	3%	0%	1%	4%	8%
Turn Type	Perm		Perm	Perm		Perm	Prot			Prot		Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4						2
Actuated Green, G (s)		9.4	9.4		9.4	9.4	6.9	26.9		7.5	27.5	27.5
Effective Green, g (s)		9.4	9.4		9.4	9.4	6.9	26.9		7.5	27.5	27.5
Actuated g/C Ratio		0.16	0.16		0.16	0.16	0.12	0.45		0.13	0.46	0.46
Clearance Time (s)		5.0	5.0		5.0	5.0	5.0	6.0		5.0	6.0	6.0
Vehicle Extension (s)		2.5	2.5		2.5	2.5	2.5	5.2		2.5	5.2	5.2
Lane Grp Cap (vph)		183	227		250	234	185	1449		206	1470	633
v/s Ratio Prot							0.05	c0.24		c0.06	0.19	
v/s Ratio Perm		c0.06	0.01		0.04	0.02						0.04
v/c Ratio		0.41	0.06		0.26	0.11	0.44	0.53		0.50	0.41	0.09
Uniform Delay, d1		22.7	21.4		22.1	21.6	24.6	11.9		24.4	10.8	9.1
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		1.1	0.1		0.4	0.1	1.2	0.7		1.4	0.4	0.1
Delay (s)		23.8	21.5		22.5	21.8	25.8	12.6		25.7	11.2	9.2
Level of Service		C	C		C	C	C	B		C	B	A
Approach Delay (s)		22.6			22.0			13.9			12.9	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	15.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	59.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	51.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	5	15	0	10	0	785	10	5	665	5
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)	5	0	5	16	0	11	0	826	11	5	700	5
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	1137	1550	353	1197	1547	418	705			837		
vC1, stage 1 conf vol	713	713		832	832							
vC2, stage 2 conf vol	424	837		366	716							
vCu, unblocked vol	1137	1550	353	1197	1547	418	705			837		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	7.3	4.1			4.6		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.5	2.2			2.5		
p0 queue free %	98	100	99	95	100	98	100			99		
cM capacity (veh/h)	342	300	649	307	303	531	902			662		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	11	26	0	551	286	5	467	239
Volume Left	5	16	0	0	0	5	0	0
Volume Right	5	11	0	0	11	0	0	5
cSH	448	369	1700	1700	1700	662	1700	1700
Volume to Capacity	0.02	0.07	0.00	0.32	0.17	0.01	0.27	0.14
Queue Length 95th (ft)	2	6	0	0	0	1	0	0
Control Delay (s)	13.2	15.5	0.0	0.0	0.0	10.5	0.0	0.0
Lane LOS	B	C				B		
Approach Delay (s)	13.2	15.5	0.0			0.1		
Approach LOS	B	C						

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	33.9%	ICU Level of Service	A
Analysis Period (min)	15		