

## Updated Traffic Operations Analysis

### **Appendix A - Traffic Operations Analysis**

### **Appendix B - Data Collection Worksheets**

## Appendix A – Traffic Operations Analysis

## Existing Conditions Traffic Operations Analysis

Existing Traffic Conditions  
1: Maple St & North Main St

Weekday PM Peak Hour

6/1/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (vph)	117	1	83	6	1	8	62	992	8	1	787	32
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	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes		0.99			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	
Frt		0.94			0.93		1.00	1.00		1.00	0.99	
Flt Protected		0.97			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1560			1492		1662	3256		1662	3274	
Flt Permitted		0.81			0.88		0.28	1.00		0.21	1.00	
Satd. Flow (perm)		1302			1336		485	3256		361	3274	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	131	1	93	7	1	9	70	1115	9	1	884	36
RTOR Reduction (vph)	0	41	0	0	7	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	184	0	0	10	0	70	1124	0	1	917	0
Confl. Peds. (#/hr)	3		1	1		3						
Confl. Bikes (#/hr)			2			1						
Heavy Vehicles (%)	3%	100%	0%	0%	100%	0%	0%	2%	0%	0%	1%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		11.6			11.6		30.0	30.0		30.0	30.0	
Effective Green, g (s)		11.6			11.6		30.0	30.0		30.0	30.0	
Actuated g/C Ratio		0.23			0.23		0.60	0.60		0.60	0.60	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		2.5			2.5		6.9	6.9		6.9	6.9	
Lane Grp Cap (vph)		305			312		293	1969		218	1980	
v/s Ratio Prot								c0.35			0.28	
v/s Ratio Perm		c0.14			0.01		0.14			0.00		
v/c Ratio		0.60			0.03		0.24	0.57		0.00	0.46	
Uniform Delay, d1		17.0			14.7		4.5	5.9		3.9	5.4	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.8			0.0		1.5	0.9		0.0	0.6	
Delay (s)		19.8			14.7		6.0	6.9		3.9	6.0	
Level of Service		B			B		A	A		A	A	
Approach Delay (s)		19.8			14.7			6.8			6.0	
Approach LOS		B			B			A			A	

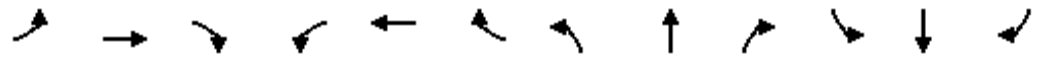
Intersection Summary

HCM Average Control Delay	7.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	49.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Existing Traffic Conditions  
2: Coolidge St & North Main St

Weekday PM Peak Hour  
6/1/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	0	1	17	2	1	39	14	1023	17	36	838	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	1	19	2	1	44	16	1149	19	40	942	2
Pedestrians		7			4			3				
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			TWLTL	
Median storage veh												2
Upstream signal (ft)												500
pX, platoon unblocked	0.88	0.88	0.88	0.88	0.88		0.88					
vC, conflicting volume	1681	2235	482	1769	2226	588	951			1173		
vC1, stage 1 conf vol	1031	1031		1194	1194							
vC2, stage 2 conf vol	651	1204		574	1032							
vCu, unblocked vol	1494	2126	125	1594	2117	588	661			1173		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.2		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	98	99	99	90	98			93		
cM capacity (veh/h)	228	179	789	185	198	456	816			584		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	20	47	590	594	511	473
Volume Left	0	2	16	0	40	0
Volume Right	19	44	0	19	0	2
cSH	663	414	816	1700	584	1700
Volume to Capacity	0.03	0.11	0.02	0.35	0.07	0.28
Queue Length 95th (ft)	2	10	1	0	6	0
Control Delay (s)	10.6	14.8	0.5	0.0	1.9	0.0
Lane LOS	B	B	A		A	
Approach Delay (s)	10.6	14.8	0.3		1.0	
Approach LOS	B	B				

Intersection Summary		
Average Delay		1.0
Intersection Capacity Utilization	65.3%	ICU Level of Service
Analysis Period (min)		15
		C

Existing Traffic Conditions  
3: Nursery St & North Main St

Weekday PM Peak Hour  
6/1/2011



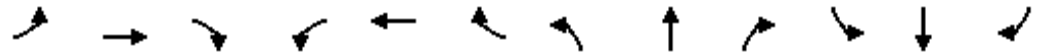
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	8	15	1054	851	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	9	16	1158	935	7
Pedestrians	7				4	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	4.0				4.0	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					871	
pX, platoon unblocked						
vC, conflicting volume	1562	478	949			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1562	478	949			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	98			
cM capacity (veh/h)	101	536	728			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	9	403	772	623	318
Volume Left	0	16	0	0	0
Volume Right	9	0	0	0	7
cSH	536	728	1700	1700	1700
Volume to Capacity	0.02	0.02	0.45	0.37	0.19
Queue Length 95th (ft)	1	2	0	0	0
Control Delay (s)	11.8	0.7	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	11.8	0.2		0.0	
Approach LOS	B				

Intersection Summary					
Average Delay			0.2		
Intersection Capacity Utilization		53.1%		ICU Level of Service	A
Analysis Period (min)		15			

Existing Traffic Conditions  
4: Wimer St & North Main St

Weekday PM Peak Hour  
6/1/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	11	12	58	5	5	125	60	934	11	76	763	20
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	13	14	67	6	6	144	69	1074	13	87	877	23
Pedestrians		9			9			1				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		1			1			0				
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								1112			1155	
pX, platoon unblocked												
vC, conflicting volume	1893	2305	460	1915	2311	552	909			1095		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1893	2305	460	1915	2311	552	909			1095		
tC, single (s)	7.7	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	33	54	88	71	81	70	91			86		
cM capacity (veh/h)	19	30	549	20	30	476	739			640		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	93	155	606	549	526	461
Volume Left	13	6	69	0	87	0
Volume Right	67	144	0	13	0	23
cSH	75	197	739	1700	640	1700
Volume to Capacity	1.25	0.79	0.09	0.32	0.14	0.27
Queue Length 95th (ft)	179	136	8	0	12	0
Control Delay (s)	282.2	69.1	2.4	0.0	3.7	0.0
Lane LOS	F	F	A		A	
Approach Delay (s)	282.2	69.1	1.3		2.0	
Approach LOS	F	F				

Intersection Summary		
Average Delay		16.9
Intersection Capacity Utilization	76.7%	ICU Level of Service
Analysis Period (min)		15
		D

Existing Traffic Conditions  
5: Van Ness Ave & North Main St

Weekday PM Peak Hour  
6/1/2011



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	0	130	875	0	83	743
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	146	983	0	93	835
Pedestrians	10		1			1
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)			902			
pX, platoon unblocked						
vC, conflicting volume	1598	503			993	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1598	503			993	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	71			87	
cM capacity (veh/h)	85	512			699	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	146	655	328	372	557
Volume Left	0	0	0	93	0
Volume Right	146	0	0	0	0
cSH	512	1700	1700	699	1700
Volume to Capacity	0.29	0.39	0.19	0.13	0.33
Queue Length 95th (ft)	29	0	0	11	0
Control Delay (s)	14.8	0.0	0.0	4.1	0.0
Lane LOS	B			A	
Approach Delay (s)	14.8	0.0		1.6	
Approach LOS	B				

Intersection Summary					
Average Delay			1.8		
Intersection Capacity Utilization			70.2%	ICU Level of Service	C
Analysis Period (min)			15		



Existing Traffic Conditions  
6: Manzanita St & North Main St

Weekday PM Peak Hour  
6/1/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	10	7	12	6	1	26	24	839	33	19	713	11
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	11	8	13	7	1	29	27	943	37	21	801	12
Pedestrians		8			9						1	
Lane Width (ft)		12.0			12.0						12.0	
Walking Speed (ft/s)		4.0			4.0						4.0	
Percent Blockage		1			1						0	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								424				
pX, platoon unblocked	0.92	0.92		0.92	0.92	0.92				0.92		
vC, conflicting volume	1414	1901	415	1485	1888	500	821			989		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1270	1801	415	1347	1787	273	821			806		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.2			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 %	89	88	98	92	98	96	97			97		
cM capacity (veh/h)	103	68	588	85	70	665	779			753		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	33	37	498	508	422	413
Volume Left	11	7	27	0	21	0
Volume Right	13	29	0	37	0	12
cSH	132	266	779	1700	753	1700
Volume to Capacity	0.25	0.14	0.03	0.30	0.03	0.24
Queue Length 95th (ft)	23	12	3	0	2	0
Control Delay (s)	41.0	20.7	1.0	0.0	0.9	0.0
Lane LOS	E	C	A		A	
Approach Delay (s)	41.0	20.7	0.5		0.4	
Approach LOS	E	C				

Intersection Summary		
Average Delay		1.5
Intersection Capacity Utilization	55.5%	ICU Level of Service
Analysis Period (min)		15
		B

Existing Traffic Conditions  
7: Central Ave & North Main St

Weekday PM Peak Hour  
6/1/2011



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	1	30	866	1	33	697
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	1	34	973	1	37	783
Pedestrians	8					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			166			
pX, platoon unblocked	0.88	0.88			0.88	
vC, conflicting volume	1447	495			982	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1228	141			697	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	96			95	
cM capacity (veh/h)	144	772			791	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	35	649	325	298	522
Volume Left	1	0	0	37	0
Volume Right	34	0	1	0	0
cSH	677	1700	1700	791	1700
Volume to Capacity	0.05	0.38	0.19	0.05	0.31
Queue Length 95th (ft)	4	0	0	4	0
Control Delay (s)	10.6	0.0	0.0	1.7	0.0
Lane LOS	B			A	
Approach Delay (s)	10.6	0.0		0.6	
Approach LOS	B				

Intersection Summary					
Average Delay			0.5		
Intersection Capacity Utilization			57.4%	ICU Level of Service	B
Analysis Period (min)			15		

Existing Traffic Conditions  
8: Laurel St & North Main St

Weekday PM Peak Hour

6/1/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕			↕			↕		
Volume (vph)	44	17	6	24	10	5	15	819	18	2	685	11	
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	
Total Lost time (s)		4.0			4.0			5.5			5.5		
Lane Util. Factor		1.00			1.00			0.95			0.95		
Frbp, ped/bikes		1.00			1.00			1.00			1.00		
Flpb, ped/bikes		1.00			1.00			1.00			1.00		
Frt		0.99			0.98			1.00			1.00		
Flt Protected		0.97			0.97			1.00			1.00		
Satd. Flow (prot)		1637			1663			3217			3251		
Flt Permitted		0.78			0.77			0.94			0.95		
Satd. Flow (perm)		1311			1319			3025			3100		
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Adj. Flow (vph)	47	18	6	26	11	5	16	871	19	2	729	12	
RTOR Reduction (vph)	0	5	0	0	4	0	0	1	0	0	1	0	
Lane Group Flow (vph)	0	66	0	0	38	0	0	905	0	0	742	0	
Confl. Peds. (#/hr)	4		9	9		4	3		1	1		3	
Confl. Bikes (#/hr)								2				2	
Heavy Vehicles (%)	3%	0%	0%	0%	0%	0%	0%	3%	0%	0%	2%	0%	
Turn Type	Perm			Perm			Perm				Perm		
Protected Phases		8			4			6				2	
Permitted Phases	8			4			6			2			
Actuated Green, G (s)		5.3			5.3			26.8				26.8	
Effective Green, g (s)		5.3			5.3			26.8				26.8	
Actuated g/C Ratio		0.13			0.13			0.64				0.64	
Clearance Time (s)		4.0			4.0			5.5				5.5	
Vehicle Extension (s)		2.5			2.5			6.1				6.1	
Lane Grp Cap (vph)		167			168			1949				1997	
v/s Ratio Prot													
v/s Ratio Perm		c0.05			0.03			c0.30				0.24	
v/c Ratio		0.39			0.22			0.46				0.37	
Uniform Delay, d1		16.7			16.3			3.8				3.5	
Progression Factor		1.00			1.00			1.00				1.00	
Incremental Delay, d2		1.1			0.5			0.5				0.3	
Delay (s)		17.8			16.8			4.3				3.8	
Level of Service		B			B			A				A	
Approach Delay (s)		17.8			16.8			4.3				3.8	
Approach LOS		B			B			A				A	
<b>Intersection Summary</b>													
HCM Average Control Delay			4.9									HCM Level of Service	A
HCM Volume to Capacity ratio			0.45										
Actuated Cycle Length (s)			41.6									Sum of lost time (s)	9.5
Intersection Capacity Utilization			53.2%									ICU Level of Service	A
Analysis Period (min)			15										
c Critical Lane Group													

Existing Traffic Conditions  
101: OR-99 & South Valley View Rd

Weekday PM Peak Hour  
6/1/2011



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	65	364	581	537	456	68
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	5.0	5.0	5.0	4.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	
Frbp, ped/bikes	1.00	1.00	1.00	0.96	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.98	
Flt Protected	0.95	1.00	1.00	1.00	0.96	
Satd. Flow (prot)	1409	3023	3167	1341	1605	
Flt Permitted	0.95	1.00	1.00	1.00	0.96	
Satd. Flow (perm)	1409	3023	3167	1341	1605	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	76	423	676	624	530	79
RTOR Reduction (vph)	0	0	0	258	3	0
Lane Group Flow (vph)	76	423	676	366	606	0
Confl. Peds. (#/hr)				5		
Confl. Bikes (#/hr)				7		
Heavy Vehicles (%)	18%	10%	5%	7%	1%	14%
Turn Type	Prot		Perm			
Protected Phases	1	6	2		8	
Permitted Phases				2		
Actuated Green, G (s)	8.1	47.3	35.2	35.2	41.1	
Effective Green, g (s)	8.1	47.3	35.2	35.2	41.1	
Actuated g/C Ratio	0.08	0.49	0.36	0.36	0.42	
Clearance Time (s)	4.0	5.0	5.0	5.0	4.0	
Vehicle Extension (s)	2.5	5.2	5.2	5.2	3.5	
Lane Grp Cap (vph)	117	1468	1145	485	677	
v/s Ratio Prot	c0.05	0.14	0.21		c0.38	
v/s Ratio Perm				c0.27		
v/c Ratio	0.65	0.29	0.59	0.75	0.89	
Uniform Delay, d1	43.3	15.0	25.2	27.3	26.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	10.5	0.2	1.3	7.9	14.6	
Delay (s)	53.8	15.2	26.5	35.3	40.7	
Level of Service	D	B	C	D	D	
Approach Delay (s)		21.1	30.7		40.7	
Approach LOS		C	C		D	

Intersection Summary

HCM Average Control Delay	31.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	97.4	Sum of lost time (s)	13.0
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Existing Traffic Conditions  
102: North Main St & Helman St

Weekday PM Peak Hour

6/1/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			FF		↑↑						↑	
Volume (vph)	0	0	715	0	841	68	0	0	0	0	61	11
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	
Lane Util. Factor			0.88		0.95						1.00	
Frbp, ped/bikes			1.00		0.98						0.99	
Flpb, ped/bikes			1.00		1.00						1.00	
Frt			0.85		0.99						0.98	
Flt Protected			1.00		1.00						1.00	
Satd. Flow (prot)			2567		3171						1692	
Flt Permitted			1.00		1.00						1.00	
Satd. Flow (perm)			2567		3171						1692	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	753	0	885	72	0	0	0	0	64	12
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	0	753	0	951	0	0	0	0	0	67	0
Confl. Peds. (#/hr)						84						57
Confl. Bikes (#/hr)			4			4						
Heavy Vehicles (%)	0%	0%	2%	0%	2%	2%	0%	0%	0%	0%	0%	0%
Turn Type			custom									
Protected Phases			6		2						4	
Permitted Phases												
Actuated Green, G (s)			47.0		47.0						20.0	
Effective Green, g (s)			47.0		47.0						20.0	
Actuated g/C Ratio			0.63		0.63						0.27	
Clearance Time (s)			4.0		4.0						4.0	
Vehicle Extension (s)			0.2		6.0						2.5	
Lane Grp Cap (vph)			1609		1987						451	
v/s Ratio Prot			0.29		c0.30						c0.04	
v/s Ratio Perm												
v/c Ratio			0.47		0.48						0.15	
Uniform Delay, d1			7.4		7.5						21.0	
Progression Factor			1.00		1.00						1.00	
Incremental Delay, d2			1.0		0.8						0.1	
Delay (s)			8.4		8.3						21.1	
Level of Service			A		A						C	
Approach Delay (s)		8.4			8.3			0.0			21.1	
Approach LOS		A			A			A			C	
<b>Intersection Summary</b>												
HCM Average Control Delay			8.9		HCM Level of Service						A	
HCM Volume to Capacity ratio			0.38									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			51.3%		ICU Level of Service					A		
Analysis Period (min)			15									

c Critical Lane Group

Existing Traffic Conditions  
103: Central Ave &

Weekday PM Peak Hour  
6/1/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	14	15	0	16	13	0	0	15	16	0	16	13
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)	15	16	0	17	14	0	0	16	17	0	17	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								100				
pX, platoon unblocked												
vC, conflicting volume	57	58	24	58	57	25	32			34		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	57	58	24	58	57	25	32			34		
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 %	98	98	100	98	98	100	100			100		
cM capacity (veh/h)	928	833	1052	925	835	1051	1581			1578		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	32	32	34	32
Volume Left	15	17	0	0
Volume Right	0	0	17	14
cSH	876	882	1581	1578
Volume to Capacity	0.04	0.04	0.00	0.00
Queue Length 95th (ft)	3	3	0	0
Control Delay (s)	9.3	9.2	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	9.3	9.2	0.0	0.0
Approach LOS	A	A		

Intersection Summary			
Average Delay		4.5	
Intersection Capacity Utilization	13.3%		ICU Level of Service
Analysis Period (min)		15	A

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**Arterial Level of Service: SB North Main St**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Maple St	III	37	136.4	7.8	144.2	1.41	35.1	A
Laurel St	III	31	54.5	5.5	60.0	0.43	25.8	B
North Main St	III	31	20.7	8.6	29.3	0.15	19.0	C
Total	III		211.6	21.9	233.5	1.99	30.7	A

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**Arterial Level of Service: WB North Main St**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Laurel St	II	32	20.7	6.1	26.8	0.15	20.7	D
Maple St	II	32	54.5	9.0	63.5	0.43	24.3	C
South Valley View Rd	II	43	117.9	27.3	145.2	1.41	34.9	B
Total	II		193.1	42.4	235.5	1.99	30.4	B

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	4:00	4:00	4:00	4:00	4:00	4:00	4:00
End Time	5:15	5:15	5:15	5:15	5:15	5:15	5:15
Total Time (min)	75	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3	3
# of Recorded Intvls	2	2	2	2	2	2	2
Vehs Entered	2973	2968	3015	2957	2973	2951	3015
Vehs Exited	2998	2956	3137	2992	3040	2959	3088
Starting Vehs	186	169	249	179	218	179	223
Ending Vehs	161	181	127	144	151	171	150
Denied Entry Before	0	4	10	6	2	1	1
Denied Entry After	0	0	0	0	1	1	0
Travel Distance (mi)	4388	4309	4480	4399	4396	4357	4376
Travel Time (hr)	166.5	162.5	178.2	178.5	171.5	162.5	174.6
Total Delay (hr)	38.5	36.5	47.7	50.8	43.4	36.2	46.2
Total Stops	4228	4187	4353	4353	4318	4125	4454
Fuel Used (gal)	145.7	142.7	151.1	147.9	147.3	144.4	148.2

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	4:00	4:00	4:00	4:00
End Time	5:15	5:15	5:15	5:15
Total Time (min)	75	75	75	75
Time Recorded (min)	60	60	60	60
# of Intervals	3	3	3	3
# of Recorded Intvls	2	2	2	2
Vehs Entered	3009	3036	2949	2983
Vehs Exited	3040	3086	3012	3028
Starting Vehs	203	197	188	190
Ending Vehs	172	147	125	145
Denied Entry Before	2	0	7	3
Denied Entry After	0	2	1	0
Travel Distance (mi)	4380	4580	4286	4395
Travel Time (hr)	166.9	187.9	160.6	171.0
Total Delay (hr)	39.2	54.0	35.7	42.8
Total Stops	4152	4589	4108	4285
Fuel Used (gal)	144.9	156.1	142.6	147.1

Interval #0 Information Seeding

Start Time	4:00
End Time	4:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	



**Interval #1 Information Recording1**

Start Time	4:15
End Time	4:30
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	10	2	3	4	5	6
Vehs Entered	798	833	826	844	822	840	870
Vehs Exited	803	823	893	834	842	816	884
Starting Vehs	186	169	249	179	218	179	223
Ending Vehs	181	179	182	189	198	203	209
Denied Entry Before	0	4	10	6	2	1	1
Denied Entry After	0	1	17	30	13	1	7
Travel Distance (mi)	1167	1197	1206	1245	1251	1190	1214
Travel Time (hr)	45.8	48.0	56.4	55.4	53.2	45.1	55.0
Total Delay (hr)	11.6	12.9	21.2	19.6	17.0	10.8	19.2
Total Stops	1219	1336	1374	1346	1316	1175	1402
Fuel Used (gal)	39.3	40.7	43.2	43.4	42.6	39.6	42.4

**Interval #1 Information Recording1**

Start Time	4:15
End Time	4:30
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	7	8	9	Avg
Vehs Entered	877	839	835	833
Vehs Exited	861	808	818	839
Starting Vehs	203	197	188	190
Ending Vehs	219	228	205	192
Denied Entry Before	2	0	7	3
Denied Entry After	0	22	1	9
Travel Distance (mi)	1240	1253	1210	1217
Travel Time (hr)	51.6	55.8	46.0	51.2
Total Delay (hr)	15.4	19.4	11.0	15.8
Total Stops	1348	1329	1193	1303
Fuel Used (gal)	42.5	43.8	41.2	41.9

**Interval #2 Information Recording2**

Start Time	4:30
End Time	5:15
Total Time (min)	45
Volumes adjusted by Growth Factors, Anti PHF.	

Run Number	1	10	2	3	4	5	6
Vehs Entered	2175	2135	2189	2113	2151	2111	2145
Vehs Exited	2195	2133	2244	2158	2198	2143	2204
Starting Vehs	181	179	182	189	198	203	209
Ending Vehs	161	181	127	144	151	171	150
Denied Entry Before	0	1	17	30	13	1	7
Denied Entry After	0	0	0	0	1	1	0
Travel Distance (mi)	3221	3112	3274	3154	3145	3167	3162
Travel Time (hr)	120.7	114.5	121.8	123.1	118.3	117.4	119.6
Total Delay (hr)	26.9	23.6	26.6	31.2	26.5	25.5	26.9
Total Stops	3009	2851	2979	3007	3002	2950	3052
Fuel Used (gal)	106.4	102.0	107.9	104.5	104.7	104.8	105.8

**Interval #2 Information Recording2**

Start Time	4:30
End Time	5:15
Total Time (min)	45
Volumes adjusted by Growth Factors, Anti PHF.	

Run Number	7	8	9	Avg
Vehs Entered	2132	2197	2114	2144
Vehs Exited	2179	2278	2194	2193
Starting Vehs	219	228	205	192
Ending Vehs	172	147	125	145
Denied Entry Before	0	22	1	9
Denied Entry After	0	2	1	0
Travel Distance (mi)	3140	3328	3075	3178
Travel Time (hr)	115.4	132.1	114.7	119.8
Total Delay (hr)	23.8	34.7	24.7	27.0
Total Stops	2804	3260	2915	2980
Fuel Used (gal)	102.4	112.3	101.4	105.2

1: Maple St & North Main St Performance by movement Interval #1 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.3	0.0	0.1	0.0	0.0	0.0	0.1	0.4	0.0	0.0	0.3	0.0
Delay / Veh (s)	28.3		19.7	23.7		12.0	14.6	4.8	5.0		4.8	4.3
Total Stops	29	0	21	2	0	2	13	59	1	0	47	2
Travel Dist (mi)	1.1	0.0	0.8	0.1	0.0	0.1	1.5	26.3	0.3	0.0	37.0	1.4
Travel Time (hr)	0.3	0.0	0.2	0.0	0.0	0.0	0.1	1.2	0.0	0.0	1.5	0.1
Avg Speed (mph)	4	4	5	4	5	8	13	22	19	21	25	24
Fuel Used (gal)	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.9	0.0	0.0	1.1	0.0
HC Emissions (g)	1	0	0	0	0	0	0	11	0	0	13	0
CO Emissions (g)	22	4	9	0	2	0	8	270	2	0	262	4
NOx Emissions (g)	3	1	1	0	0	0	1	35	0	0	39	1
Vehicles Entered	32	0	24	2	0	2	16	283	3	0	225	8
Vehicles Exited	31	0	24	2	0	2	16	283	3	0	226	8
Hourly Exit Rate	124	0	96	8	0	8	64	1132	12	0	904	32
Input Volume	131	1	93	7	1	9	70	1127	9	1	922	36
% of Volume	95	0	103	114	0	89	91	100	133	0	98	89
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

1: Maple St & North Main St Performance by movement Interval #1 4:15

Movement	All
Total Delay (hr)	1.2
Delay / Veh (s)	7.1
Total Stops	176
Travel Dist (mi)	68.6
Travel Time (hr)	3.4
Avg Speed (mph)	20
Fuel Used (gal)	2.2
HC Emissions (g)	26
CO Emissions (g)	582
NOx Emissions (g)	80
Vehicles Entered	595
Vehicles Exited	595
Hourly Exit Rate	2380
Input Volume	2407
% of Volume	99
Denied Entry Before	0
Denied Entry After	0

1: Maple St & North Main St Performance by movement Interval #2 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.6	0.0	0.3	0.0	0.0	0.0	0.1	0.9	0.0	0.0	0.7	0.0
Delay / Veh (s)	26.2	34.3	14.8	22.1	28.3	7.7	11.1	4.2	2.9		4.3	5.0
Total Stops	73	1	55	3	1	6	35	141	1	0	120	5
Travel Dist (mi)	2.9	0.0	2.2	0.1	0.0	0.2	4.3	67.7	0.7	0.1	98.0	3.7
Travel Time (hr)	0.8	0.0	0.4	0.0	0.0	0.0	0.3	3.0	0.0	0.0	3.9	0.2
Avg Speed (mph)	4	4	6	4	4	9	14	23	22	22	25	23
Fuel Used (gal)	0.3	0.0	0.1	0.0	0.0	0.0	0.1	2.2	0.0	0.0	2.8	0.1
HC Emissions (g)	2	1	0	0	0	0	0	25	0	0	33	0
CO Emissions (g)	48	9	20	1	4	1	21	624	3	0	649	10
NOx Emissions (g)	6	1	3	0	0	0	2	81	0	0	97	1
Vehicles Entered	82	1	62	3	1	7	46	727	7	0	611	23
Vehicles Exited	82	1	62	4	1	7	46	726	7	0	612	23
Hourly Exit Rate	109	1	83	5	1	9	61	968	9	0	816	31
Input Volume	112	1	80	6	1	8	59	961	8	1	785	31
% of Volume	98	133	103	89	133	117	104	101	117	0	104	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

1: Maple St & North Main St Performance by movement Interval #2 4:30

Movement	All
Total Delay (hr)	2.7
Delay / Veh (s)	6.1
Total Stops	441
Travel Dist (mi)	179.9
Travel Time (hr)	8.6
Avg Speed (mph)	21
Fuel Used (gal)	5.7
HC Emissions (g)	61
CO Emissions (g)	1390
NOx Emissions (g)	193
Vehicles Entered	1570
Vehicles Exited	1571
Hourly Exit Rate	2095
Input Volume	2053
% of Volume	102
Denied Entry Before	0
Denied Entry After	0

1: Maple St & North Main St Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.8	0.0	0.4	0.0	0.0	0.0	0.2	1.2	0.0	0.0	1.0	0.0
Delay / Veh (s)	26.8	24.1	16.1	27.1	18.5	8.7	12.0	4.4	3.5		4.4	4.8
Total Stops	102	2	75	4	2	8	48	199	2	0	166	7
Travel Dist (mi)	4.0	0.1	3.0	0.2	0.1	0.3	5.8	94.0	1.0	0.1	135.0	5.1
Travel Time (hr)	1.1	0.0	0.5	0.0	0.0	0.0	0.4	4.2	0.0	0.0	5.4	0.2
Avg Speed (mph)	4	4	6	4	4	9	14	22	21	22	25	23
Fuel Used (gal)	0.4	0.0	0.2	0.0	0.0	0.0	0.2	3.0	0.0	0.0	3.9	0.1
HC Emissions (g)	3	1	1	0	0	0	1	35	0	0	46	1
CO Emissions (g)	70	13	28	1	6	1	29	894	4	0	911	14
NOx Emissions (g)	9	2	4	0	0	0	3	116	1	0	137	2
Vehicles Entered	114	2	86	5	2	9	62	1010	10	0	836	31
Vehicles Exited	114	2	86	5	2	9	62	1009	10	0	838	31
Hourly Exit Rate	114	2	86	5	2	9	62	1009	10	0	838	31
Input Volume	117	1	83	6	1	8	62	1002	8	1	819	32
% of Volume	98	200	103	80	200	109	100	101	121	0	102	96
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

1: Maple St & North Main St Performance by movement Entire Run

Movement	All
Total Delay (hr)	3.8
Delay / Veh (s)	6.4
Total Stops	615
Travel Dist (mi)	248.5
Travel Time (hr)	12.1
Avg Speed (mph)	21
Fuel Used (gal)	7.9
HC Emissions (g)	87
CO Emissions (g)	1973
NOx Emissions (g)	274
Vehicles Entered	2167
Vehicles Exited	2168
Hourly Exit Rate	2168
Input Volume	2142
% of Volume	101
Denied Entry Before	0
Denied Entry After	0

2: Coolidge St & North Main St Performance by movement Interval #1 4:15

Movement	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.0	0.4
Delay / Veh (s)	9.1			14.1	8.3	0.9	1.1	23.0	2.6		2.4
Total Stops	6	0	0	12	3	3	0	8	12	0	44
Travel Dist (mi)	0.3	0.0	0.0	0.7	0.3	20.0	0.4	0.8	20.8	0.0	43.4
Travel Time (hr)	0.0	0.0	0.0	0.1	0.0	0.7	0.0	0.1	0.9	0.0	1.8
Avg Speed (mph)	10	4	7	9	13	29	24	9	24	23	24
Fuel Used (gal)	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.9	0.0	1.6
HC Emissions (g)	0	0	0	0	0	11	0	0	9	0	21
CO Emissions (g)	1	0	0	4	2	244	2	8	307	0	568
NOx Emissions (g)	0	0	0	0	0	33	0	1	33	0	69
Vehicles Entered	6	0	0	12	5	287	6	9	235	0	560
Vehicles Exited	6	0	0	12	5	287	5	9	234	0	558
Hourly Exit Rate	24	0	0	48	20	1148	20	36	936	0	2232
Input Volume	19	2	1	44	16	1150	19	40	953	2	2247
% of Volume	126	0	0	109	125	100	105	90	98	0	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0

2: Coolidge St & North Main St Performance by movement Interval #2 4:30

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.4	0.0	0.8
Delay / Veh (s)		7.4	15.4	55.3	10.5	9.2	0.7	0.5	14.5	2.1	1.0	1.9
Total Stops	0	12	1	1	28	6	7	0	21	23	0	99
Travel Dist (mi)	0.0	0.7	0.0	0.0	1.6	0.6	52.9	0.9	2.3	56.2	0.2	115.4
Travel Time (hr)	0.0	0.1	0.0	0.0	0.2	0.0	1.8	0.0	0.2	2.2	0.0	4.6
Avg Speed (mph)	2	12	6	3	10	13	29	25	12	25	24	25
Fuel Used (gal)	0.0	0.0	0.0	0.0	0.1	0.0	1.6	0.0	0.1	2.3	0.0	4.0
HC Emissions (g)	0	0	0	0	0	0	25	0	1	23	0	48
CO Emissions (g)	0	1	0	0	6	3	524	3	26	771	2	1337
NOx Emissions (g)	0	0	0	0	1	0	74	0	2	84	0	162
Vehicles Entered	0	12	1	1	28	9	752	12	26	632	2	1475
Vehicles Exited	0	12	1	1	29	9	751	12	26	634	2	1477
Hourly Exit Rate	0	16	1	1	39	12	1001	16	35	845	3	1969
Input Volume	1	16	2	1	37	13	990	16	35	813	2	1926
% of Volume	0	100	67	133	105	92	101	100	99	104	133	102
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

2: Coolidge St & North Main St Performance by movement Entire Run

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.2	0.5	0.0	1.2
Delay / Veh (s)		7.9	27.1	59.2	11.9	8.9	0.8	0.7	16.6	2.2	1.3	2.0
Total Stops	0	18	1	1	40	9	11	0	30	35	0	145
Travel Dist (mi)	0.0	1.0	0.1	0.1	2.3	0.9	72.9	1.2	3.1	77.0	0.2	158.8
Travel Time (hr)	0.0	0.1	0.0	0.0	0.2	0.1	2.5	0.1	0.3	3.1	0.0	6.4
Avg Speed (mph)	2	11	5	3	10	13	29	24	11	25	24	25
Fuel Used (gal)	0.0	0.0	0.0	0.0	0.1	0.0	2.2	0.0	0.1	3.1	0.0	5.6
HC Emissions (g)	0	0	0	0	0	0	36	0	1	32	0	69
CO Emissions (g)	0	3	0	0	10	4	767	5	33	1078	2	1904
NOx Emissions (g)	0	0	0	0	1	0	107	1	3	117	0	230
Vehicles Entered	0	18	1	1	40	14	1039	18	35	868	2	2036
Vehicles Exited	0	18	1	1	40	14	1038	18	35	868	2	2035
Hourly Exit Rate	0	18	1	1	40	14	1038	18	35	868	2	2035
Input Volume	1	17	2	1	39	14	1030	17	36	848	2	2006
% of Volume	0	107	50	100	103	102	101	107	97	102	100	101
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

3: Nursery St & North Main St Performance by movement Interval #1 4:15

Movement	EBR	NBL	NBT	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.2
Delay / Veh (s)	8.2	8.5	1.0	0.8	0.9	1.0
Total Stops	2	3	5	2	0	12
Travel Dist (mi)	0.1	0.2	16.2	16.9	0.1	33.5
Travel Time (hr)	0.0	0.0	0.6	0.6	0.0	1.3
Avg Speed (mph)	11	11	26	28	24	27
Fuel Used (gal)	0.0	0.0	0.7	0.5	0.0	1.3
HC Emissions (g)	0	0	12	6	0	18
CO Emissions (g)	0	2	381	142	5	529
NOx Emissions (g)	0	0	38	18	1	57
Vehicles Entered	2	4	308	237	1	552
Vehicles Exited	2	4	307	236	1	550
Hourly Exit Rate	8	16	1228	944	4	2200
Input Volume	9	16	1227	957	7	2216
% of Volume	89	100	100	99	57	99
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

**3: Nursery St & North Main St Performance by movement Interval #2 4:30**

Movement	EBR	NBL	NBT	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.3
Delay / Veh (s)	7.0	7.0	0.7	0.6	1.0	0.7
Total Stops	6	7	6	3	0	22
Travel Dist (mi)	0.3	0.6	41.6	46.0	0.4	88.9
Travel Time (hr)	0.0	0.0	1.5	1.6	0.0	3.2
Avg Speed (mph)	12	13	28	28	24	28
Fuel Used (gal)	0.0	0.0	1.7	1.4	0.0	3.2
HC Emissions (g)	0	0	26	14	0	41
CO Emissions (g)	1	6	831	363	9	1209
NOx Emissions (g)	0	1	84	46	1	132
Vehicles Entered	6	11	774	639	5	1435
Vehicles Exited	6	11	774	640	5	1436
Hourly Exit Rate	8	15	1032	853	7	1915
Input Volume	8	15	1019	823	6	1871
% of Volume	100	98	101	104	111	102
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

**3: Nursery St & North Main St Performance by movement Entire Run**

Movement	EBR	NBL	NBT	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.2	0.2	0.0	0.4
Delay / Veh (s)	7.3	7.4	0.8	0.7	1.0	0.8
Total Stops	8	10	11	5	0	34
Travel Dist (mi)	0.4	0.8	57.8	62.9	0.5	122.4
Travel Time (hr)	0.0	0.1	2.1	2.2	0.0	4.5
Avg Speed (mph)	12	12	27	28	24	27
Fuel Used (gal)	0.0	0.0	2.5	1.9	0.0	4.4
HC Emissions (g)	0	0	38	20	1	59
CO Emissions (g)	1	8	1212	505	13	1738
NOx Emissions (g)	0	1	123	63	2	189
Vehicles Entered	8	15	1081	876	6	1986
Vehicles Exited	8	15	1081	876	6	1986
Hourly Exit Rate	8	15	1081	876	6	1986
Input Volume	8	15	1071	856	6	1957
% of Volume	97	98	101	102	96	101
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0



4: Wimer St & North Main St Performance by movement Interval #1 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.2	0.7	0.1	0.1	0.6	0.0	0.1	0.0	0.1	0.2	0.0
Delay / Veh (s)	126.2	223.8	155.1	125.9	237.5	64.9	10.5	1.7	1.2	16.3	2.7	1.1
Total Stops	3	3	15	2	1	34	13	12	0	18	18	0
Travel Dist (mi)	0.1	0.2	0.8	0.1	0.0	1.4	0.8	12.6	0.1	1.1	11.5	0.3
Travel Time (hr)	0.1	0.2	0.7	0.1	0.1	0.7	0.1	0.6	0.0	0.1	0.5	0.0
Avg Speed (mph)	1	1	1	1	1	2	10	23	21	8	22	23
Fuel Used (gal)	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.5	0.0	0.0	0.4	0.0
HC Emissions (g)	1	0	0	0	0	0	0	7	0	0	4	0
CO Emissions (g)	12	3	14	1	1	18	4	220	2	5	114	1
NOx Emissions (g)	1	0	1	0	0	2	1	26	0	1	13	0
Vehicles Entered	3	3	16	2	1	36	18	272	3	22	220	6
Vehicles Exited	3	3	17	2	1	35	17	271	3	22	221	6
Hourly Exit Rate	12	12	68	8	4	140	68	1084	12	88	884	24
Input Volume	13	14	67	6	6	144	69	1081	13	87	887	23
% of Volume	92	86	101	133	67	97	99	100	92	101	100	104
Denied Entry Before	0	0	0	0	0	1	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	1	0	0	0	0	0	0

4: Wimer St & North Main St Performance by movement Interval #1 4:15

Movement	All
Total Delay (hr)	2.2
Delay / Veh (s)	13.3
Total Stops	119
Travel Dist (mi)	29.1
Travel Time (hr)	3.3
Avg Speed (mph)	10
Fuel Used (gal)	1.5
HC Emissions (g)	12
CO Emissions (g)	396
NOx Emissions (g)	44
Vehicles Entered	602
Vehicles Exited	601
Hourly Exit Rate	2404
Input Volume	2410
% of Volume	100
Denied Entry Before	1
Denied Entry After	1

4: Wimer St & North Main St Performance by movement Interval #2 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.1	0.3	0.0	0.1	0.7	0.1	0.2	0.0	0.2	0.2	0.0
Delay / Veh (s)	38.3	54.5	24.5	39.5	105.9	27.6	7.9	1.1	0.7	9.9	1.5	0.6
Total Stops	7	8	40	3	3	90	27	15	0	41	25	0
Travel Dist (mi)	0.3	0.4	2.0	0.1	0.1	3.5	1.9	32.2	0.4	3.0	31.1	0.8
Travel Time (hr)	0.1	0.1	0.4	0.1	0.1	0.9	0.2	1.3	0.0	0.3	1.3	0.0
Avg Speed (mph)	4	3	5	3	2	5	11	25	21	11	25	23
Fuel Used (gal)	0.0	0.0	0.1	0.0	0.0	0.3	0.1	1.3	0.0	0.1	1.0	0.0
HC Emissions (g)	1	0	0	0	0	0	0	19	0	0	9	0
CO Emissions (g)	9	3	15	1	2	28	13	560	9	10	253	3
NOx Emissions (g)	1	0	1	0	0	3	2	64	1	1	30	0
Vehicles Entered	7	7	40	3	3	90	41	683	8	55	576	14
Vehicles Exited	7	8	42	4	4	92	41	684	8	55	577	14
Hourly Exit Rate	9	11	56	5	5	123	55	912	11	73	769	19
Input Volume	10	11	55	5	5	119	57	897	10	72	740	19
% of Volume	93	97	102	107	107	103	96	102	107	102	104	98
Denied Entry Before	0	0	0	0	0	1	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

4: Wimer St & North Main St Performance by movement Interval #2 4:30

Movement	All
Total Delay (hr)	2.0
Delay / Veh (s)	4.7
Total Stops	259
Travel Dist (mi)	75.8
Travel Time (hr)	4.7
Avg Speed (mph)	17
Fuel Used (gal)	3.0
HC Emissions (g)	30
CO Emissions (g)	907
NOx Emissions (g)	105
Vehicles Entered	1527
Vehicles Exited	1536
Hourly Exit Rate	2048
Input Volume	2000
% of Volume	102
Denied Entry Before	1
Denied Entry After	0

4: Wimer St & North Main St Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.2	0.3	1.0	0.1	0.2	1.3	0.1	0.3	0.0	0.3	0.4	0.0
Delay / Veh (s)	64.7	100.7	61.1	81.9	111.1	38.2	8.7	1.3	0.8	11.7	1.9	0.8
Total Stops	10	10	55	5	4	124	40	27	0	59	43	0
Travel Dist (mi)	0.5	0.5	2.8	0.2	0.2	4.8	2.7	44.8	0.5	4.1	42.6	1.1
Travel Time (hr)	0.2	0.3	1.1	0.1	0.2	1.6	0.3	1.8	0.0	0.4	1.8	0.0
Avg Speed (mph)	3	2	3	2	1	4	11	24	21	10	24	23
Fuel Used (gal)	0.1	0.1	0.3	0.0	0.0	0.5	0.1	1.9	0.0	0.1	1.4	0.0
HC Emissions (g)	1	0	0	0	0	1	0	26	1	0	13	0
CO Emissions (g)	21	7	29	3	3	46	17	780	11	15	368	4
NOx Emissions (g)	2	0	2	0	0	5	2	90	1	2	43	0
Vehicles Entered	10	10	56	5	5	126	58	955	11	77	796	20
Vehicles Exited	10	11	58	5	5	127	58	954	11	77	798	20
Hourly Exit Rate	10	11	58	5	5	127	58	954	11	77	798	20
Input Volume	11	12	58	5	5	125	60	943	11	76	777	20
% of Volume	93	94	100	95	95	101	97	101	102	102	103	100
Denied Entry Before	0	0	0	0	0	1	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

4: Wimer St & North Main St Performance by movement Entire Run

Movement	All
Total Delay (hr)	4.2
Delay / Veh (s)	7.1
Total Stops	377
Travel Dist (mi)	104.9
Travel Time (hr)	7.9
Avg Speed (mph)	14
Fuel Used (gal)	4.5
HC Emissions (g)	42
CO Emissions (g)	1303
NOx Emissions (g)	149
Vehicles Entered	2129
Vehicles Exited	2134
Hourly Exit Rate	2134
Input Volume	2102
% of Volume	101
Denied Entry Before	1
Denied Entry After	0

5: Van Ness Ave & North Main St Performance by movement Interval #1 4:15

Movement	WBR	NBT	SBL	SBT	All
Total Delay (hr)	0.2	0.1	0.1	0.1	0.5
Delay / Veh (s)	18.2	1.2	20.8	1.9	3.6
Total Stops	38	4	20	13	75
Travel Dist (mi)	1.9	19.7	1.0	8.9	31.5
Travel Time (hr)	0.3	0.7	0.2	0.4	1.6
Avg Speed (mph)	7	28	5	21	20
Fuel Used (gal)	0.1	0.6	0.1	0.4	1.2
HC Emissions (g)	1	9	0	5	15
CO Emissions (g)	21	248	8	162	439
NOx Emissions (g)	2	30	1	16	49
Vehicles Entered	37	252	24	215	528
Vehicles Exited	38	251	24	215	528
Hourly Exit Rate	152	1004	96	860	2112
Input Volume	146	993	93	865	2097
% of Volume	104	101	103	99	101
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

5: Van Ness Ave & North Main St Performance by movement Interval #2 4:30

Movement	WBR	NBT	SBL	SBT	All
Total Delay (hr)	0.3	0.1	0.3	0.2	1.0
Delay / Veh (s)	11.9	0.8	14.6	1.5	2.5
Total Stops	93	1	50	26	170
Travel Dist (mi)	4.6	50.6	2.7	23.2	81.2
Travel Time (hr)	0.5	1.8	0.4	1.0	3.7
Avg Speed (mph)	9	29	7	23	22
Fuel Used (gal)	0.2	1.7	0.1	1.0	3.0
HC Emissions (g)	1	24	0	10	35
CO Emissions (g)	41	626	22	344	1033
NOx Emissions (g)	4	74	2	33	115
Vehicles Entered	93	646	65	552	1356
Vehicles Exited	93	647	65	552	1357
Hourly Exit Rate	124	863	87	736	1809
Input Volume	125	848	80	712	1765
% of Volume	99	102	108	103	103
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

5: Van Ness Ave & North Main St Performance by movement Entire Run

Movement	WBR	NBT	SBL	SBT	All
Total Delay (hr)	0.5	0.2	0.4	0.3	1.5
Delay / Veh (s)	13.7	0.9	16.4	1.6	2.8
Total Stops	131	4	71	38	244
Travel Dist (mi)	6.5	70.2	3.7	32.2	112.6
Travel Time (hr)	0.8	2.5	0.6	1.4	5.3
Avg Speed (mph)	8	28	7	23	21
Fuel Used (gal)	0.3	2.3	0.2	1.4	4.2
HC Emissions (g)	2	33	1	14	50
CO Emissions (g)	62	874	30	506	1472
NOx Emissions (g)	7	104	3	50	164
Vehicles Entered	130	898	88	767	1883
Vehicles Exited	131	898	88	766	1883
Hourly Exit Rate	131	898	88	766	1883
Input Volume	130	884	83	750	1848
% of Volume	101	102	106	102	102
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

6: Manzanita St & North Main St Performance by movement Interval #1 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Delay / Veh (s)	30.1	86.4	15.2	21.2		11.1	7.7	1.4	0.8	9.5	1.1	1.5
Total Stops	3	2	4	2	0	7	5	6	0	4	2	0
Travel Dist (mi)	0.1	0.1	0.2	0.1	0.0	0.3	0.4	14.7	0.6	0.5	17.1	0.3
Travel Time (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	0.0
Avg Speed (mph)	5	3	8	4	3	8	13	26	23	14	28	25
Fuel Used (gal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.5	0.0
HC Emissions (g)	0	0	0	0	0	0	1	10	0	0	7	1
CO Emissions (g)	1	0	2	0	0	1	12	306	6	5	180	13
NOx Emissions (g)	0	0	0	0	0	0	1	32	0	0	21	2
Vehicles Entered	3	2	4	2	0	8	7	241	9	6	198	4
Vehicles Exited	3	1	4	2	0	7	7	241	9	6	199	4
Hourly Exit Rate	12	4	16	8	0	28	28	964	36	24	796	16
Input Volume	11	8	13	7	1	29	27	952	37	21	804	12
% of Volume	109	50	123	114	0	97	104	101	97	114	99	133
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

6: Manzanita St & North Main St Performance by movement Interval #1 4:15

Movement	All
Total Delay (hr)	0.3
Delay / Veh (s)	2.2
Total Stops	35
Travel Dist (mi)	34.3
Travel Time (hr)	1.4
Avg Speed (mph)	24
Fuel Used (gal)	1.3
HC Emissions (g)	18
CO Emissions (g)	526
NOx Emissions (g)	58
Vehicles Entered	484
Vehicles Exited	483
Hourly Exit Rate	1932
Input Volume	1922
% of Volume	101
Denied Entry Before	0
Denied Entry After	0

6: Manzanita St & North Main St Performance by movement Interval #2 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0
Delay / Veh (s)	26.2	34.7	12.7	14.5		7.9	5.4	1.0	0.8	8.3	0.8	0.8
Total Stops	7	4	8	4	0	21	11	8	0	9	4	0
Travel Dist (mi)	0.3	0.2	0.4	0.2	0.0	0.8	1.2	37.5	1.6	1.3	45.7	0.7
Travel Time (hr)	0.1	0.0	0.0	0.0	0.0	0.1	0.1	1.4	0.1	0.1	1.6	0.0
Avg Speed (mph)	5	4	9	7	7	9	15	27	23	15	28	25
Fuel Used (gal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	1.4	0.0
HC Emissions (g)	0	0	0	0	0	0	0	20	0	0	16	2
CO Emissions (g)	2	1	2	1	0	3	9	627	14	15	398	34
NOx Emissions (g)	0	0	0	0	0	0	1	67	1	1	46	5
Vehicles Entered	7	4	8	4	0	21	20	616	27	15	528	9
Vehicles Exited	7	4	8	4	0	21	20	616	27	15	528	9
Hourly Exit Rate	9	5	11	5	0	28	27	821	36	20	704	12
Input Volume	10	7	12	6	1	25	23	812	32	18	685	11
% of Volume	93	76	89	89	0	112	116	101	112	111	103	109
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

6: Manzanita St & North Main St Performance by movement Interval #2 4:30

Movement	All
Total Delay (hr)	0.6
Delay / Veh (s)	1.6
Total Stops	76
Travel Dist (mi)	89.9
Travel Time (hr)	3.5
Avg Speed (mph)	26
Fuel Used (gal)	3.1
HC Emissions (g)	38
CO Emissions (g)	1106
NOx Emissions (g)	122
Vehicles Entered	1259
Vehicles Exited	1259
Hourly Exit Rate	1679
Input Volume	1642
% of Volume	102
Denied Entry Before	0
Denied Entry After	0

6: Manzanita St & North Main St Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.1	0.2	0.0
Delay / Veh (s)	27.4	37.5	12.5	16.7	24.4	8.7	6.2	1.1	0.8	8.6	0.9	1.1
Total Stops	10	6	13	6	1	28	16	14	0	13	6	0
Travel Dist (mi)	0.5	0.3	0.6	0.2	0.0	1.1	1.6	52.1	2.2	1.8	62.8	1.0
Travel Time (hr)	0.1	0.1	0.1	0.0	0.0	0.1	0.1	2.0	0.1	0.1	2.2	0.0
Avg Speed (mph)	5	4	8	6	4	9	15	27	23	15	28	25
Fuel Used (gal)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.1	0.1	0.1	1.9	0.0
HC Emissions (g)	0	0	0	0	0	0	1	30	0	0	23	3
CO Emissions (g)	3	2	3	1	0	4	21	933	20	20	578	47
NOx Emissions (g)	0	0	0	0	0	0	2	99	2	2	67	7
Vehicles Entered	10	6	13	6	1	28	26	856	36	20	726	12
Vehicles Exited	10	6	13	6	1	28	26	857	36	21	727	12
Hourly Exit Rate	10	6	13	6	1	28	26	857	36	21	727	12
Input Volume	10	7	12	6	1	26	24	847	33	19	715	11
% of Volume	98	83	106	96	100	108	108	101	108	112	102	107
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

6: Manzanita St & North Main St Performance by movement Entire Run

Movement	All
Total Delay (hr)	0.8
Delay / Veh (s)	1.7
Total Stops	113
Travel Dist (mi)	124.2
Travel Time (hr)	5.0
Avg Speed (mph)	25
Fuel Used (gal)	4.3
HC Emissions (g)	57
CO Emissions (g)	1632
NOx Emissions (g)	180
Vehicles Entered	1740
Vehicles Exited	1743
Hourly Exit Rate	1743
Input Volume	1712
% of Volume	102
Denied Entry Before	0
Denied Entry After	0



7: Central Ave & North Main St Performance by movement Interval #1 4:15

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.2	0.3
Delay / Veh (s)		7.5	0.8	0.2	17.6	2.8	2.2
Total Stops	0	9	4	0	8	28	49
Travel Dist (mi)	0.0	0.2	4.6	0.0	0.5	10.2	15.5
Travel Time (hr)	0.0	0.0	0.2	0.0	0.1	0.5	0.8
Avg Speed (mph)	2	5	22	17	8	21	20
Fuel Used (gal)	0.0	0.0	0.2	0.0	0.0	0.4	0.6
HC Emissions (g)	0	0	4	0	0	4	8
CO Emissions (g)	0	2	105	0	3	110	220
NOx Emissions (g)	0	0	14	0	0	13	27
Vehicles Entered	0	9	245	1	10	193	458
Vehicles Exited	0	9	245	1	10	193	458
Hourly Exit Rate	0	36	980	4	40	772	1832
Input Volume	1	34	973	1	37	784	1830
% of Volume	0	106	101	400	108	98	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

7: Central Ave & North Main St Performance by movement Interval #2 4:30

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Total Delay (hr)	0.0	0.1	0.1	0.0	0.1	0.3	0.6
Delay / Veh (s)		8.1	0.6		11.1	2.4	1.7
Total Stops	0	22	2	0	15	68	107
Travel Dist (mi)	0.0	0.4	12.6	0.0	1.2	27.3	41.5
Travel Time (hr)	0.0	0.1	0.5	0.0	0.1	1.2	2.0
Avg Speed (mph)	2	5	24	15	10	22	21
Fuel Used (gal)	0.0	0.0	0.6	0.0	0.0	0.9	1.6
HC Emissions (g)	0	0	9	0	0	8	17
CO Emissions (g)	0	5	272	0	7	223	506
NOx Emissions (g)	0	1	34	0	1	27	62
Vehicles Entered	0	22	650	0	22	517	1211
Vehicles Exited	0	23	650	0	22	517	1212
Hourly Exit Rate	0	31	867	0	29	689	1616
Input Volume	1	29	849	1	32	670	1582
% of Volume	0	106	102	0	92	103	102
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

7: Central Ave & North Main St Performance by movement Entire Run

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Total Delay (hr)	0.0	0.1	0.2	0.0	0.1	0.5	0.9
Delay / Veh (s)	25.3	7.9	0.7	0.4	13.2	2.5	1.9
Total Stops	1	31	6	0	22	96	156
Travel Dist (mi)	0.0	0.6	17.1	0.0	1.7	37.5	57.0
Travel Time (hr)	0.0	0.1	0.7	0.0	0.2	1.7	2.8
Avg Speed (mph)	2	5	23	16	9	22	21
Fuel Used (gal)	0.0	0.0	0.9	0.0	0.1	1.2	2.2
HC Emissions (g)	0	0	13	0	0	12	25
CO Emissions (g)	0	6	377	0	10	333	726
NOx Emissions (g)	0	1	47	0	1	39	89
Vehicles Entered	1	32	895	1	32	710	1671
Vehicles Exited	1	32	895	1	32	710	1671
Hourly Exit Rate	1	32	895	1	32	710	1671
Input Volume	1	30	880	1	33	698	1644
% of Volume	100	106	102	100	96	102	102
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

8: Laurel St & North Main St Performance by movement Interval #1 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0
Delay / Veh (s)	24.2	24.3	12.6	21.7	19.0	5.3	17.1	5.6	3.9	10.9	2.4	4.1
Total Stops	12	3	2	3	2	1	3	47	1	0	24	1
Travel Dist (mi)	0.7	0.2	0.1	0.1	0.0	0.0	0.5	33.6	0.9	0.0	5.3	0.1
Travel Time (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.3	0.0
Avg Speed (mph)	6	5	8	2	2	7	15	23	22	4	18	12
Fuel Used (gal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.2	0.0
HC Emissions (g)	0	0	0	0	0	0	0	21	0	0	3	0
CO Emissions (g)	10	2	1	1	1	0	7	695	11	0	84	1
NOx Emissions (g)	1	0	0	0	0	0	1	72	1	0	10	0
Vehicles Entered	14	4	2	5	3	1	3	220	6	1	189	3
Vehicles Exited	14	4	2	6	3	1	3	218	6	1	190	3
Hourly Exit Rate	56	16	8	24	12	4	12	872	24	4	760	12
Input Volume	47	18	6	26	11	5	16	871	19	2	770	12
% of Volume	119	89	133	92	109	80	75	100	126	200	99	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

8: Laurel St & North Main St Performance by movement Interval #1 4:15

Movement	All
Total Delay (hr)	0.7
Delay / Veh (s)	5.3
Total Stops	99
Travel Dist (mi)	41.5
Travel Time (hr)	2.1
Avg Speed (mph)	20
Fuel Used (gal)	1.9
HC Emissions (g)	24
CO Emissions (g)	812
NOx Emissions (g)	85
Vehicles Entered	451
Vehicles Exited	451
Hourly Exit Rate	1804
Input Volume	1803
% of Volume	100
Denied Entry Before	0
Denied Entry After	0

8: Laurel St & North Main St Performance by movement Interval #2 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.8	0.0	0.0	0.3	0.0
Delay / Veh (s)	24.3	24.5	11.4	20.6	20.6	8.0	11.4	4.9	4.9	12.6	2.4	2.0
Total Stops	30	11	4	10	5	2	7	110	3	1	67	2
Travel Dist (mi)	1.7	0.6	0.2	0.2	0.1	0.1	1.4	94.3	2.4	0.0	14.4	0.3
Travel Time (hr)	0.3	0.1	0.0	0.1	0.1	0.0	0.1	4.1	0.1	0.0	0.8	0.0
Avg Speed (mph)	6	6	10	2	2	5	17	23	22	8	18	15
Fuel Used (gal)	0.1	0.0	0.0	0.0	0.0	0.0	0.1	4.2	0.1	0.0	0.6	0.0
HC Emissions (g)	1	0	0	0	0	0	0	55	1	0	6	0
CO Emissions (g)	20	7	2	3	1	1	19	1897	29	0	189	1
NOx Emissions (g)	2	1	0	0	0	0	2	194	3	0	23	0
Vehicles Entered	33	12	4	16	8	4	9	619	15	2	515	9
Vehicles Exited	33	12	4	16	8	4	9	619	15	1	515	9
Hourly Exit Rate	44	16	5	21	11	5	12	825	20	1	687	12
Input Volume	43	17	6	23	10	5	15	811	18	2	670	11
% of Volume	102	94	89	93	107	107	80	102	111	67	102	109
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

8: Laurel St & North Main St Performance by movement Interval #2 4:30

Movement	All
Total Delay (hr)	1.7
Delay / Veh (s)	5.0
Total Stops	252
Travel Dist (mi)	115.6
Travel Time (hr)	5.7
Avg Speed (mph)	20
Fuel Used (gal)	5.2
HC Emissions (g)	63
CO Emissions (g)	2169
NOx Emissions (g)	226
Vehicles Entered	1246
Vehicles Exited	1245
Hourly Exit Rate	1660
Input Volume	1631
% of Volume	102
Denied Entry Before	0
Denied Entry After	0

8: Laurel St & North Main St Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.3	0.1	0.0	0.1	0.1	0.0	0.0	1.2	0.0	0.0	0.5	0.0
Delay / Veh (s)	24.3	24.4	11.8	20.9	20.2	7.5	12.8	5.1	4.6	11.7	2.4	2.5
Total Stops	42	14	5	14	7	3	10	156	4	2	92	2
Travel Dist (mi)	2.4	0.8	0.3	0.2	0.1	0.1	1.8	127.9	3.2	0.1	19.7	0.4
Travel Time (hr)	0.4	0.1	0.0	0.1	0.1	0.0	0.1	5.6	0.1	0.0	1.1	0.0
Avg Speed (mph)	6	6	9	2	2	5	16	23	22	6	18	14
Fuel Used (gal)	0.1	0.1	0.0	0.0	0.0	0.0	0.1	5.6	0.1	0.0	0.9	0.0
HC Emissions (g)	1	0	0	0	0	0	0	76	1	0	9	0
CO Emissions (g)	29	8	3	4	2	1	26	2592	40	0	273	2
NOx Emissions (g)	3	1	0	1	0	0	2	266	4	0	34	0
Vehicles Entered	47	16	6	21	11	5	12	838	21	2	704	12
Vehicles Exited	47	16	6	22	11	5	12	838	21	2	705	12
Hourly Exit Rate	47	16	6	22	11	5	12	838	21	2	705	12
Input Volume	44	17	6	24	10	5	15	826	18	2	695	11
% of Volume	107	93	100	93	107	100	79	101	115	100	101	107
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

8: Laurel St & North Main St Performance by movement Entire Run

Movement	All
Total Delay (hr)	2.4
Delay / Veh (s)	5.0
Total Stops	351
Travel Dist (mi)	157.1
Travel Time (hr)	7.8
Avg Speed (mph)	20
Fuel Used (gal)	7.0
HC Emissions (g)	88
CO Emissions (g)	2981
NOx Emissions (g)	311
Vehicles Entered	1695
Vehicles Exited	1697
Hourly Exit Rate	1697
Input Volume	1674
% of Volume	101
Denied Entry Before	0
Denied Entry After	0

101: OR-99 & South Valley View Rd Performance by movement Interval #1 4:15

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.4	0.4	1.3	0.9	4.1	0.6	7.6
Delay / Veh (s)	70.6	12.4	27.2	20.7	113.7	119.7	46.0
Total Stops	18	40	106	125	170	27	486
Travel Dist (mi)	4.5	25.4	35.6	31.5	16.4	2.5	115.8
Travel Time (hr)	0.5	0.9	2.1	1.7	4.6	0.7	10.5
Avg Speed (mph)	10	29	17	19	5	5	13
Fuel Used (gal)	0.2	0.9	1.1	0.8	1.4	0.2	4.6
HC Emissions (g)	16	37	19	15	6	8	101
CO Emissions (g)	336	1094	526	269	188	123	2536
NOx Emissions (g)	34	99	53	34	18	15	252
Vehicles Entered	18	105	173	152	128	20	596
Vehicles Exited	18	104	169	152	130	19	592
Hourly Exit Rate	72	416	676	608	520	76	2368
Input Volume	76	423	683	624	530	79	2415
% of Volume	95	98	99	97	98	96	98
Denied Entry Before	0	0	0	0	2	0	2
Denied Entry After	0	0	0	0	7	1	8

101: OR-99 & South Valley View Rd Performance by movement Interval #2 4:30

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.7	0.8	2.3	1.5	4.9	0.7	10.9
Delay / Veh (s)	54.6	10.4	18.2	14.0	53.8	51.9	25.5
Total Stops	45	94	212	248	315	49	963
Travel Dist (mi)	11.2	64.0	90.5	81.5	41.7	6.4	295.4
Travel Time (hr)	1.0	2.1	4.3	3.8	6.4	0.9	18.5
Avg Speed (mph)	12	31	21	22	7	8	17
Fuel Used (gal)	0.5	2.2	2.5	1.8	2.4	0.4	9.8
HC Emissions (g)	28	94	36	41	11	14	224
CO Emissions (g)	642	2731	1111	752	521	262	6019
NOx Emissions (g)	64	254	113	98	40	31	600
Vehicles Entered	47	265	453	396	322	49	1532
Vehicles Exited	47	265	457	400	330	51	1550
Hourly Exit Rate	63	353	609	533	440	68	2067
Input Volume	61	344	604	508	431	64	2012
% of Volume	103	103	101	105	102	106	103
Denied Entry Before	0	0	0	0	7	1	8
Denied Entry After	0	0	0	0	0	0	0

101: OR-99 & South Valley View Rd Performance by movement Entire Run

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	1.1	1.1	3.6	2.4	8.9	1.4	18.5
Delay / Veh (s)	59.0	11.0	20.6	15.8	70.7	69.5	31.2
Total Stops	64	134	318	373	485	76	1450
Travel Dist (mi)	15.7	89.4	126.1	113.0	58.1	8.8	411.1
Travel Time (hr)	1.4	2.9	6.4	5.5	11.0	1.7	29.0
Avg Speed (mph)	12	31	20	21	6	6	16
Fuel Used (gal)	0.7	3.1	3.6	2.6	3.9	0.6	14.5
HC Emissions (g)	43	132	55	55	16	22	324
CO Emissions (g)	978	3825	1637	1021	709	386	8555
NOx Emissions (g)	98	353	165	132	58	46	852
Vehicles Entered	65	370	626	549	450	69	2129
Vehicles Exited	66	370	626	552	461	70	2145
Hourly Exit Rate	66	370	626	552	461	70	2145
Input Volume	65	364	624	537	456	68	2113
% of Volume	102	102	100	103	101	103	102
Denied Entry Before	0	0	0	0	2	0	2
Denied Entry After	0	0	0	0	0	0	0

102: North Main St & Helman St Performance by movement Interval #1 4:15

Movement	EBT	EBR	WBT	WBR	SBT	SBR	All
Total Delay (hr)	0.0	0.5	0.5	0.0	0.1	0.0	1.1
Delay / Veh (s)	1.2	9.9	7.7	7.2	19.3	14.1	8.9
Total Stops	0	76	96	8	9	2	191
Travel Dist (mi)	0.2	27.7	10.9	0.9	1.5	0.3	41.4
Travel Time (hr)	0.0	1.6	1.0	0.1	0.1	0.0	2.9
Avg Speed (mph)	28	18	11	10	11	11	15
Fuel Used (gal)	0.0	0.8	0.5	0.0	0.1	0.0	1.5
HC Emissions (g)	0	9	4	0	0	0	14
CO Emissions (g)	3	255	111	8	9	1	387
NOx Emissions (g)	0	27	16	1	1	0	46
Vehicles Entered	2	185	223	18	14	2	444
Vehicles Exited	2	185	224	18	15	3	447
Hourly Exit Rate	8	740	896	72	60	12	1788
Input Volume	8	753	885	72	64	12	1794
% of Volume	100	98	101	100	94	100	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

102: North Main St & Helman St Performance by movement Interval #2 4:30

Movement	EBT	EBR	WBT	WBR	SBT	SBR	All
Total Delay (hr)	0.0	1.5	1.3	0.1	0.3	0.0	3.2
Delay / Veh (s)		10.3	7.5	6.2	21.3	10.1	9.1
Total Stops	0	229	260	20	31	7	547
Travel Dist (mi)	0.0	80.1	30.7	2.4	4.6	1.0	118.8
Travel Time (hr)	0.0	4.6	2.9	0.2	0.4	0.1	8.2
Avg Speed (mph)	25	18	11	11	10	14	15
Fuel Used (gal)	0.0	2.5	1.5	0.1	0.2	0.0	4.3
HC Emissions (g)	0	22	11	1	0	0	34
CO Emissions (g)	0	678	305	21	27	5	1036
NOx Emissions (g)	0	70	43	3	3	1	119
Vehicles Entered	0	534	630	50	43	9	1266
Vehicles Exited	0	536	629	50	43	9	1267
Hourly Exit Rate	0	715	839	67	57	12	1689
Input Volume	0	702	826	67	60	11	1666
% of Volume		102	102	100	96	109	101
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

102: North Main St & Helman St Performance by movement Entire Run

Movement	EBT	EBR	WBT	WBR	SBT	SBR	All
Total Delay (hr)	0.0	2.0	1.8	0.1	0.3	0.0	4.3
Delay / Veh (s)	1.4	10.2	7.6	6.5	20.5	11.1	9.1
Total Stops	0	305	356	28	40	9	738
Travel Dist (mi)	0.2	107.8	41.6	3.3	6.0	1.2	160.2
Travel Time (hr)	0.0	6.1	4.0	0.3	0.6	0.1	11.1
Avg Speed (mph)	27	18	11	11	10	13	15
Fuel Used (gal)	0.0	3.3	2.0	0.1	0.3	0.0	5.8
HC Emissions (g)	0	30	15	1	1	0	48
CO Emissions (g)	3	933	416	30	36	7	1424
NOx Emissions (g)	0	97	59	4	4	1	165
Vehicles Entered	2	719	853	68	57	12	1711
Vehicles Exited	2	721	853	68	58	12	1714
Hourly Exit Rate	2	721	853	68	58	12	1714
Input Volume	2	715	841	68	61	11	1698
% of Volume	100	101	101	100	95	107	101
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0



103: Central Ave & Performance by movement Interval #1 4:15

Movement	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	3.9	2.5	8.7	6.6	0.5	0.6	4.4	0.2	3.2
Total Stops	4	4	4	4	0	0	1	0	17
Travel Dist (mi)	0.1	0.2	0.3	0.3	0.1	0.1	0.2	0.1	1.3
Travel Time (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Avg Speed (mph)	9	11	13	16	16	15	17	23	14
Fuel Used (gal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HC Emissions (g)	0	0	0	0	0	0	0	0	0
CO Emissions (g)	1	2	1	1	2	2	1	1	11
NOx Emissions (g)	0	0	0	0	0	0	0	0	1
Vehicles Entered	4	7	4	4	5	5	3	3	35
Vehicles Exited	4	7	4	4	5	5	3	3	35
Hourly Exit Rate	16	28	16	16	20	20	12	12	140
Input Volume	15	23	17	14	22	17	17	14	139
% of Volume	107	122	94	114	91	118	71	86	101
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

103: Central Ave & Performance by movement Interval #2 4:30

Movement	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	3.5	2.9	8.6	6.6	0.7	0.5	1.9	0.2	3.0
Total Stops	8	10	12	11	0	0	1	0	42
Travel Dist (mi)	0.2	0.4	0.8	0.7	0.3	0.2	0.6	0.5	3.6
Travel Time (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Avg Speed (mph)	10	11	13	15	16	15	21	24	15
Fuel Used (gal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
HC Emissions (g)	0	0	0	0	0	0	0	0	1
CO Emissions (g)	2	4	2	2	12	4	5	3	34
NOx Emissions (g)	0	1	0	0	1	0	0	0	3
Vehicles Entered	8	15	12	11	18	12	12	10	98
Vehicles Exited	8	14	12	11	18	12	12	10	97
Hourly Exit Rate	11	19	16	15	24	16	16	13	129
Input Volume	14	19	16	13	21	16	16	13	128
% of Volume	76	98	100	113	114	100	100	103	101
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

103: Central Ave & Performance by movement Entire Run

Movement	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	3.6	2.8	8.6	6.6	0.7	0.6	2.4	0.2	3.0
Total Stops	12	15	16	15	0	0	2	0	60
Travel Dist (mi)	0.3	0.5	1.0	1.0	0.4	0.3	0.7	0.6	4.8
Travel Time (hr)	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.3
Avg Speed (mph)	10	11	13	15	16	15	20	24	15
Fuel Used (gal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
HC Emissions (g)	0	0	0	0	0	0	0	0	1
CO Emissions (g)	3	6	4	3	14	5	6	4	46
NOx Emissions (g)	0	1	0	0	1	1	0	0	4
Vehicles Entered	12	21	16	15	23	17	15	13	132
Vehicles Exited	12	21	16	15	23	17	15	13	132
Hourly Exit Rate	12	21	16	15	23	17	15	13	132
Input Volume	14	20	16	13	21	16	16	13	131
% of Volume	84	105	98	113	108	105	92	98	101
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

Total Network Performance By Interval

Interval Start	4:15	4:30	All
Total Delay (hr)	15.8	27.0	42.8
Delay / Veh (s)	67.7	44.8	51.3
Total Stops	1303	2980	4285
Travel Dist (mi)	1217.3	3177.9	4395.2
Travel Time (hr)	51.2	119.8	171.0
Avg Speed (mph)	25	27	26
Fuel Used (gal)	41.9	105.2	147.1
HC Emissions (g)	684	1640	2325
CO Emissions (g)	18406	45018	63425
NOx Emissions (g)	2255	5552	7807
Vehicles Entered	833	2144	2983
Vehicles Exited	839	2193	3028
Hourly Exit Rate	3356	2924	3028
Input Volume	28774	24611	25652
% of Volume	12	12	12
Denied Entry Before	3	9	3
Denied Entry After	9	0	0

## Road Diet Traffic Operations Analysis

Existing Traffic Conditions  
1: Maple St & North Main St

Weekday PM Peak Hour

6/1/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↖	↗	↗	↖	↖
Volume (vph)	128	1	84	6	1	8	77	981	8	1	787	32
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	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		1.00			1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.95			0.93		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1574			1504		1661	1716	1455	1662	1750	1450
Flt Permitted		0.81			0.91		0.22	1.00	1.00	0.11	1.00	1.00
Satd. Flow (perm)		1306			1402		389	1716	1455	192	1750	1450
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	144	1	94	7	1	9	87	1102	9	1	884	36
RTOR Reduction (vph)	0	30	0	0	7	0	0	0	2	0	0	11
Lane Group Flow (vph)	0	209	0	0	10	0	87	1102	7	1	884	25
Confl. Peds. (#/hr)							3		1	1		3
Heavy Vehicles (%)	3%	100%	0%	0%	100%	0%	0%	2%	0%	0%	0%	0%
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		8			4			6				2
Permitted Phases	8			4			6		6	2		2
Actuated Green, G (s)		15.9			15.9		56.4	56.4	56.4	56.4	56.4	56.4
Effective Green, g (s)		15.9			15.9		56.4	56.4	56.4	56.4	56.4	56.4
Actuated g/C Ratio		0.20			0.20		0.70	0.70	0.70	0.70	0.70	0.70
Clearance Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)		2.5			2.5		6.9	6.9	6.9	6.9	6.9	6.9
Lane Grp Cap (vph)		259			278		273	1205	1022	135	1229	1018
v/s Ratio Prot							c0.64				0.51	
v/s Ratio Perm		c0.16			0.01		0.22	0.00	0.01	0.01		0.02
v/c Ratio		0.81			0.04		0.32	0.91	0.01	0.01	0.72	0.02
Uniform Delay, d1		30.7			26.0		4.6	9.9	3.6	3.6	7.2	3.6
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		16.3			0.0		2.3	11.9	0.0	0.1	3.3	0.0
Delay (s)		47.0			26.0		6.9	21.9	3.6	3.7	10.5	3.7
Level of Service		D			C		A	C	A	A	B	A
Approach Delay (s)		47.0			26.0			20.7			10.2	
Approach LOS		D			C			C			B	

Intersection Summary

HCM Average Control Delay	19.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	80.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Existing Traffic Conditions  
2: Coolidge St & North Main St

Weekday PM Peak Hour

6/1/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	17	2	0	40	0	1026	17	37	838	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	19	2	0	45	0	1153	19	42	942	2
Pedestrians		7			4			3				
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								TWLTL			None	
Median storage (veh)								2				
Upstream signal (ft)											500	
pX, platoon unblocked	0.66	0.66	0.66	0.66	0.66		0.66					
vC, conflicting volume	2240	2209	953	2213	2200	1166	951			1176		
vC1, stage 1 conf vol	1033	1033		1166	1166							
vC2, stage 2 conf vol	1207	1176		1047	1034							
vCu, unblocked vol	2619	2572	672	2579	2559	1166	669			1176		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	94	99	100	81	100			93		
cM capacity (veh/h)	115	158	301	150	172	237	611			588		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	19	47	1172	42	944
Volume Left	0	2	0	42	0
Volume Right	19	45	19	0	2
cSH	301	231	1700	588	1700
Volume to Capacity	0.06	0.20	0.69	0.07	0.56
Queue Length 95th (ft)	5	19	0	6	0
Control Delay (s)	17.8	24.5	0.0	11.6	0.0
Lane LOS	C	C		B	
Approach Delay (s)	17.8	24.5	0.0	0.5	
Approach LOS	C	C			

Intersection Summary		
Average Delay		0.9
Intersection Capacity Utilization	71.1%	ICU Level of Service
Analysis Period (min)	15	C

Existing Traffic Conditions  
3: Nursery St & North Main St

Weekday PM Peak Hour

6/1/2011



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	8	30	1043	851	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	9	33	1146	935	7
Pedestrians	7				4	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	4.0				4.0	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage (veh)					2	
Upstream signal (ft)					871	
pX, platoon unblocked	0.65	0.65	0.65			
vC, conflicting volume	2162	945	949			
vC1, stage 1 conf vol	945					
vC2, stage 2 conf vol	1216					
vCu, unblocked vol	2510	653	658			
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 %	100	97	95			
cM capacity (veh/h)	200	306	611			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	9	33	1146	942
Volume Left	0	33	0	0
Volume Right	9	0	0	7
cSH	306	611	1700	1700
Volume to Capacity	0.03	0.05	0.67	0.55
Queue Length 95th (ft)	2	4	0	0
Control Delay (s)	17.1	11.2	0.0	0.0
Lane LOS	C	B		
Approach Delay (s)	17.1	0.3		0.0
Approach LOS	C			

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		69.6%	ICU Level of Service C
Analysis Period (min)		15	

Existing Traffic Conditions  
4: Wimer St & North Main St

Weekday PM Peak Hour

6/1/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	70	0	0	125	0	949	11	117	722	20
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	0	0	80	0	0	144	0	1091	13	134	830	23
Pedestrians		9			9			1				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		1			1			0				
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								1112			1155	
pX, platoon unblocked	0.88	0.88	0.76	0.88	0.88	0.76	0.76			0.76		
vC, conflicting volume	2360	2232	851	2286	2237	1106	862			1112		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1867	1721	648	1783	1727	982	661			990		
tC, single (s)	7.2	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	78	100	100	37	100			75		
cM capacity (veh/h)	14	58	358	35	58	229	700			533		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	80	144	1103	134	853
Volume Left	0	0	0	134	0
Volume Right	80	144	13	0	23
cSH	358	229	1700	533	1700
Volume to Capacity	0.22	0.63	0.65	0.25	0.50
Queue Length 95th (ft)	21	93	0	25	0
Control Delay (s)	18.0	43.9	0.0	14.0	0.0
Lane LOS	C	E		B	
Approach Delay (s)	18.0	43.9	0.0	1.9	
Approach LOS	C	E			

Intersection Summary		
Average Delay		4.2
Intersection Capacity Utilization	70.0%	ICU Level of Service
Analysis Period (min)		15
		C

Existing Traffic Conditions  
5: Van Ness Ave & North Main St

Weekday PM Peak Hour  
6/1/2011



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗			↗
Volume (veh/h)	0	130	830	0	0	792
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	146	933	0	0	890
Pedestrians	10		1			1
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)			902			
pX, platoon unblocked	0.73	0.73			0.73	
vC, conflicting volume	1833	944			943	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1959	735			733	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	52			100	
cM capacity (veh/h)	51	304			635	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	146	933	890
Volume Left	0	0	0
Volume Right	146	0	0
cSH	304	1700	1700
Volume to Capacity	0.48	0.55	0.52
Queue Length 95th (ft)	62	0	0
Control Delay (s)	27.4	0.0	0.0
Lane LOS	D		
Approach Delay (s)	27.4	0.0	0.0
Approach LOS	D		

Intersection Summary			
Average Delay		2.0	
Intersection Capacity Utilization		63.1%	ICU Level of Service
Analysis Period (min)		15	B



Existing Traffic Conditions  
6: Manzanita St & North Main St

Weekday PM Peak Hour  
6/1/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (veh/h)	10	7	12	6	1	26	68	794	33	19	762	11
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	11	8	13	7	1	29	76	892	37	21	856	12
Pedestrians		8			9							1
Lane Width (ft)		12.0			12.0						12.0	
Walking Speed (ft/s)		4.0			4.0						4.0	
Percent Blockage		1			1						0	
Right turn flare (veh)												
Median type								TWLTL				None
Median storage veh								2				
Upstream signal (ft)								424				
pX, platoon unblocked	0.68	0.68		0.68	0.68	0.68				0.68		
vC, conflicting volume	1989	2004	870	1989	1992	921	877			938		
vC1, stage 1 conf vol	913	913		1072	1072							
vC2, stage 2 conf vol	1076	1091		916	919							
vCu, unblocked vol	2222	2245	870	2222	2226	644	877			670		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	95	96	95	99	91	90			97		
cM capacity (veh/h)	144	165	351	146	165	320	753			625		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	33	37	76	929	21	869
Volume Left	11	7	76	0	21	0
Volume Right	13	29	0	37	0	12
cSH	198	257	753	1700	625	1700
Volume to Capacity	0.16	0.14	0.10	0.55	0.03	0.51
Queue Length 95th (ft)	14	12	8	0	3	0
Control Delay (s)	26.7	21.3	10.3	0.0	11.0	0.0
Lane LOS	D	C	B		B	
Approach Delay (s)	26.7	21.3	0.8		0.3	
Approach LOS	D	C				

Intersection Summary		
Average Delay		1.4
Intersection Capacity Utilization	64.6%	ICU Level of Service C
Analysis Period (min)		15

Existing Traffic Conditions  
7: Central Ave & North Main St

Weekday PM Peak Hour  
6/1/2011



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗			↗
Volume (veh/h)	0	30	866	0	0	779
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	34	973	0	0	875
Pedestrians	8					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type			None			TWLTL
Median storage veh						2
Upstream signal (ft)			166			
pX, platoon unblocked	0.67	0.67			0.67	
vC, conflicting volume	1856	981			981	
vC1, stage 1 conf vol	981					
vC2, stage 2 conf vol	875					
vCu, unblocked vol	2035	721			721	
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 %	100	88			100	
cM capacity (veh/h)	247	285			589	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	34	973	875
Volume Left	0	0	0
Volume Right	34	0	0
cSH	285	1700	1700
Volume to Capacity	0.12	0.57	0.51
Queue Length 95th (ft)	10	0	0
Control Delay (s)	19.3	0.0	0.0
Lane LOS	C		
Approach Delay (s)	19.3	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay		0.3	
Intersection Capacity Utilization		59.5%	ICU Level of Service B
Analysis Period (min)		15	

Existing Traffic Conditions  
8: Laurel St & North Main St

Weekday PM Peak Hour

6/1/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (vph)	44	17	6	30	15	5	15	818	19	89	679	11
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0		5.5	5.5		5.5	5.5	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frbp, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			0.99		1.00	1.00		1.00	1.00	
Frt		0.99			0.99		1.00	1.00		1.00	1.00	
Flt Protected		0.97			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1633			1663		1660	1694		1662	1711	
Flt Permitted		0.77			0.86		0.34	1.00		0.25	1.00	
Satd. Flow (perm)		1296			1467		590	1694		445	1711	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	47	18	6	32	16	5	16	870	20	95	722	12
RTOR Reduction (vph)	0	5	0	0	4	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	66	0	0	49	0	16	889	0	95	733	0
Confl. Peds. (#/hr)	4		9	9		4	3		1	1		3
Confl. Bikes (#/hr)								2				2
Heavy Vehicles (%)	3%	0%	0%	0%	0%	0%	0%	3%	0%	0%	2%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6				2
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		5.6			5.6		38.8	38.8		38.8	38.8	
Effective Green, g (s)		5.6			5.6		38.8	38.8		38.8	38.8	
Actuated g/C Ratio		0.10			0.10		0.72	0.72		0.72	0.72	
Clearance Time (s)		4.0			4.0		5.5	5.5		5.5	5.5	
Vehicle Extension (s)		2.5			2.5		6.1	6.1		6.1	6.1	
Lane Grp Cap (vph)		135			152		425	1219		320	1232	
v/s Ratio Prot								c0.53				0.43
v/s Ratio Perm		c0.05			0.03		0.03			0.21		
v/c Ratio		0.49			0.32		0.04	0.73		0.30	0.60	
Uniform Delay, d1		22.8			22.4		2.2	4.5		2.7	3.7	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.0			0.9		0.1	3.2		1.5	1.5	
Delay (s)		24.8			23.3		2.3	7.6		4.2	5.2	
Level of Service		C			C		A	A		A	A	
Approach Delay (s)		24.8			23.3			7.5			5.1	
Approach LOS		C			C			A			A	

Intersection Summary

HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	53.9	Sum of lost time (s)	9.5
Intersection Capacity Utilization	77.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Existing Traffic Conditions  
101: OR-99 & South Valley View Rd

Weekday PM Peak Hour  
6/1/2011



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	65	364	581	537	456	68
Ideal Flow (vphp)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	5.0	5.0	5.0	4.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	
Frbp, ped/bikes	1.00	1.00	1.00	0.97	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.98	
Flt Protected	0.95	1.00	1.00	1.00	0.96	
Satd. Flow (prot)	1409	3023	3167	1351	1605	
Flt Permitted	0.95	1.00	1.00	1.00	0.96	
Satd. Flow (perm)	1409	3023	3167	1351	1605	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	76	423	676	624	530	79
RTOR Reduction (vph)	0	0	0	258	3	0
Lane Group Flow (vph)	76	423	676	366	606	0
Confl. Peds. (#/hr)	5			5		
Heavy Vehicles (%)	18%	10%	5%	7%	1%	14%
Turn Type	Prot			Perm		
Protected Phases	1	6	2		8	
Permitted Phases				2		
Actuated Green, G (s)	8.1	47.2	35.1	35.1	41.1	
Effective Green, g (s)	8.1	47.2	35.1	35.1	41.1	
Actuated g/C Ratio	0.08	0.49	0.36	0.36	0.42	
Clearance Time (s)	4.0	5.0	5.0	5.0	4.0	
Vehicle Extension (s)	2.5	5.2	5.2	5.2	3.5	
Lane Grp Cap (vph)	117	1466	1142	487	678	
v/s Ratio Prot	c0.05	0.14	0.21		c0.38	
v/s Ratio Perm				c0.27		
v/c Ratio	0.65	0.29	0.59	0.75	0.89	
Uniform Delay, d1	43.2	15.0	25.3	27.3	26.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	10.5	0.2	1.3	7.8	14.4	
Delay (s)	53.7	15.2	26.6	35.0	40.5	
Level of Service	D	B	C	D	D	
Approach Delay (s)		21.1	30.6		40.5	
Approach LOS		C	C		D	

Intersection Summary

HCM Average Control Delay	31.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	97.3	Sum of lost time (s)	13.0
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Existing Traffic Conditions  
102: North Main St & Helman St

Weekday PM Peak Hour

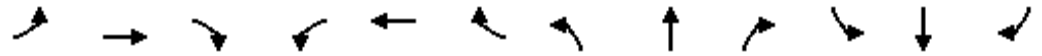
6/1/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↑↑		↑↑						↑	
Volume (vph)	0	0	715	0	841	68	0	0	0	0	61	11
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	
Lane Util. Factor			0.88		0.95						1.00	
Frbp, ped/bikes			1.00		0.98						0.98	
Flpb, ped/bikes			1.00		1.00						1.00	
Frt			0.85		0.99						0.98	
Flt Protected			1.00		1.00						1.00	
Satd. Flow (prot)			2567		3230						1679	
Flt Permitted			1.00		1.00						1.00	
Satd. Flow (perm)			2567		3230						1679	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	753	0	885	72	0	0	0	0	64	12
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	0	753	0	951	0	0	0	0	0	67	0
Confl. Peds. (#/hr)	84					84	57		9	9		57
Heavy Vehicles (%)	0%	0%	2%	2%	0%	2%	0%	0%	0%	0%	0%	0%
Turn Type			custom									
Protected Phases			6		2							4
Permitted Phases												
Actuated Green, G (s)			47.0		47.0						20.0	
Effective Green, g (s)			47.0		47.0						20.0	
Actuated g/C Ratio			0.63		0.63						0.27	
Clearance Time (s)			4.0		4.0						4.0	
Vehicle Extension (s)			0.2		6.0						2.5	
Lane Grp Cap (vph)			1609		2024						448	
v/s Ratio Prot			0.29		c0.29						c0.04	
v/s Ratio Perm												
v/c Ratio			0.47		0.47						0.15	
Uniform Delay, d1			7.4		7.4						21.0	
Progression Factor			1.00		1.00						1.00	
Incremental Delay, d2			1.0		0.8						0.1	
Delay (s)			8.4		8.2						21.1	
Level of Service			A		A						C	
Approach Delay (s)		8.4			8.2			0.0			21.1	
Approach LOS		A			A			A			C	
<b>Intersection Summary</b>												
HCM Average Control Delay			8.8		HCM Level of Service						A	
HCM Volume to Capacity ratio			0.37									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			51.3%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

Existing Traffic Conditions  
103: Central Ave &

Weekday PM Peak Hour  
6/1/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Volume (veh/h)	0	0	0	25	15	0	0	62	63	0	25	15
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	0	0	27	16	0	0	67	68	0	27	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)							100					
pX, platoon unblocked												
vC, conflicting volume	145	171	35	137	145	102	43				136	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	145	171	35	137	145	102	43				136	
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	100	100	97	98	100	100				100	
cM capacity (veh/h)	810	722	1037	834	746	954	1565				1448	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	43	136	43
Volume Left	27	0	0
Volume Right	0	68	16
cSH	799	1565	1448
Volume to Capacity	0.05	0.00	0.00
Queue Length 95th (ft)	4	0	0
Control Delay (s)	9.8	0.0	0.0
Lane LOS	A		
Approach Delay (s)	9.8	0.0	0.0
Approach LOS	A		

Intersection Summary		
Average Delay		1.9
Intersection Capacity Utilization	17.7%	ICU Level of Service
Analysis Period (min)		15
		A

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**Arterial Level of Service: SB North Main St**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Maple St	III	37	136.4	13.6	150.0	1.41	33.7	A
Laurel St	III	31	54.5	7.5	62.0	0.43	24.9	B
North Main St	III	31	20.7	8.6	29.3	0.15	19.0	C
Total	III		211.6	29.7	241.3	1.99	29.7	B

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**Arterial Level of Service: WB North Main St**


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Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Laurel St	II	32	20.7	10.4	31.1	0.15	17.9	D
Maple St	II	32	54.5	26.2	80.7	0.43	19.2	D
South Valley View Rd	II	43	117.9	27.3	145.2	1.41	34.9	B
Total	II		193.1	63.9	257.0	1.99	27.9	C

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	4:00	4:00	4:00	4:00	4:00	4:00	4:00
End Time	5:15	5:15	5:15	5:15	5:15	5:15	5:15
Total Time (min)	75	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3	3
# of Recorded Intvl's	2	2	2	2	2	2	2
Vehs Entered	3136	2953	2956	2981	3125	2973	2903
Vehs Exited	3190	2985	3027	3054	3139	3036	2958
Starting Vehs	240	201	256	219	196	213	216
Ending Vehs	186	169	185	146	182	150	161
Denied Entry Before	14	17	11	4	5	1	8
Denied Entry After	0	1	1	1	1	0	1
Travel Distance (mi)	4583	4255	4459	4503	4498	4242	4209
Travel Time (hr)	218.5	181.4	231.3	190.3	209.6	176.2	186.1
Total Delay (hr)	85.0	57.0	101.9	58.6	78.2	52.1	63.3
Total Stops	5430	4834	6069	4955	5714	4742	5326
Fuel Used (gal)	162.7	145.7	162.4	153.1	159.1	144.5	146.2

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	4:00	4:00	4:00	4:00
End Time	5:15	5:15	5:15	5:15
Total Time (min)	75	75	75	75
Time Recorded (min)	60	60	60	60
# of Intervals	3	3	3	3
# of Recorded Intvl's	2	2	2	2
Vehs Entered	2996	3013	3036	3009
Vehs Exited	3018	3048	3082	3052
Starting Vehs	216	195	213	217
Ending Vehs	194	160	167	166
Denied Entry Before	2	4	14	7
Denied Entry After	5	1	8	1
Travel Distance (mi)	4330	4445	4468	4399
Travel Time (hr)	179.0	193.7	207.4	197.3
Total Delay (hr)	52.6	64.3	77.6	69.1
Total Stops	4797	5055	5465	5237
Fuel Used (gal)	147.6	153.9	156.8	153.2

Interval #0 Information Seeding

Start Time	4:00
End Time	4:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	



**Interval #1 Information Recording1**

Start Time	4:15
End Time	4:30
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	10	2	3	4	5	6
Vehs Entered	862	824	759	846	872	827	853
Vehs Exited	849	823	791	833	802	828	819
Starting Vehs	240	201	256	219	196	213	216
Ending Vehs	253	202	224	232	266	212	250
Denied Entry Before	14	17	11	4	5	1	8
Denied Entry After	28	10	48	5	16	2	11
Travel Distance (mi)	1230	1217	1116	1228	1183	1146	1192
Travel Time (hr)	68.4	61.8	73.8	56.0	56.2	52.0	59.3
Total Delay (hr)	32.5	26.4	41.0	20.1	21.7	18.7	24.9
Total Stops	1843	1670	2379	1381	1676	1385	1766
Fuel Used (gal)	46.3	44.0	44.6	42.8	42.0	40.3	42.9

**Interval #1 Information Recording1**

Start Time	4:15
End Time	4:30
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	7	8	9	Avg
Vehs Entered	814	830	879	830
Vehs Exited	836	808	849	823
Starting Vehs	216	195	213	217
Ending Vehs	194	217	243	221
Denied Entry Before	2	4	14	7
Denied Entry After	2	27	26	15
Travel Distance (mi)	1190	1178	1207	1189
Travel Time (hr)	51.6	59.6	60.8	60.0
Total Delay (hr)	16.8	25.3	25.9	25.3
Total Stops	1430	1594	1751	1684
Fuel Used (gal)	41.3	43.2	43.5	43.1

**Interval #2 Information Recording2**

Start Time	4:30
End Time	5:15
Total Time (min)	45
Volumes adjusted by Growth Factors, Anti PHF.	

Run Number	1	10	2	3	4	5	6
Vehs Entered	2274	2129	2197	2135	2253	2146	2050
Vehs Exited	2341	2162	2236	2221	2337	2208	2139
Starting Vehs	253	202	224	232	266	212	250
Ending Vehs	186	169	185	146	182	150	161
Denied Entry Before	28	10	48	5	16	2	11
Denied Entry After	0	1	1	1	1	0	1
Travel Distance (mi)	3353	3038	3343	3275	3315	3097	3017
Travel Time (hr)	150.1	119.6	157.6	134.3	153.4	124.1	126.8
Total Delay (hr)	52.5	30.6	60.9	38.6	56.5	33.5	38.5
Total Stops	3587	3164	3690	3574	4038	3357	3560
Fuel Used (gal)	116.5	101.7	117.8	110.2	117.0	104.2	103.3

**Interval #2 Information Recording2**

Start Time	4:30
End Time	5:15
Total Time (min)	45
Volumes adjusted by Growth Factors, Anti PHF.	

Run Number	7	8	9	Avg
Vehs Entered	2182	2183	2157	2168
Vehs Exited	2182	2240	2233	2233
Starting Vehs	194	217	243	221
Ending Vehs	194	160	167	166
Denied Entry Before	2	27	26	15
Denied Entry After	5	1	8	1
Travel Distance (mi)	3139	3267	3262	3211
Travel Time (hr)	127.5	134.0	146.6	137.4
Total Delay (hr)	35.8	39.1	51.7	43.8
Total Stops	3367	3461	3714	3553
Fuel Used (gal)	106.3	110.7	113.3	110.1

Intersection: 1: Maple St & North Main St, Interval #1

Movement	EB	WB	NB	NB	NB	SB	SB	B89
Directions Served	LTR	LTR	L	T	R	T	R	T
Maximum Queue (ft)	197	33	142	448	48	552	54	190
Average Queue (ft)	150	9	78	345	8	344	9	55
95th Queue (ft)	229	32	168	555	57	778	58	393
Link Distance (ft)	183	186		421		833		5375
Upstream Blk Time (%)	8			8		3		
Queuing Penalty (veh)	0			90		27		
Storage Bay Dist (ft)			150		150		200	
Storage Blk Time (%)			5	14	0	12	0	
Queuing Penalty (veh)			55	13	0	4	0	

Intersection: 1: Maple St & North Main St, Interval #2

Movement	EB	WB	NB	NB	NB	SB	SB	SB	B89
Directions Served	LTR	LTR	L	T	R	L	T	R	T
Maximum Queue (ft)	202	53	146	447	35	10	474	110	78
Average Queue (ft)	129	13	54	242	2	1	177	11	7
95th Queue (ft)	213	40	123	478	25	10	437	62	123
Link Distance (ft)	183	186		421			833		5375
Upstream Blk Time (%)	3			2			0		
Queuing Penalty (veh)	0			23			3		
Storage Bay Dist (ft)			150		150	200		200	
Storage Blk Time (%)			0	9	0		4	0	
Queuing Penalty (veh)			3	7	0		1	0	

Intersection: 1: Maple St & North Main St, All Intervals

Movement	EB	WB	NB	NB	NB	SB	SB	SB	B89
Directions Served	LTR	LTR	L	T	R	L	T	R	T
Maximum Queue (ft)	202	55	163	451	72	10	610	132	198
Average Queue (ft)	134	12	60	267	4	1	217	10	19
95th Queue (ft)	218	38	136	508	35	8	550	61	216
Link Distance (ft)	183	186		421			833		5375
Upstream Blk Time (%)	5			4			1		
Queuing Penalty (veh)	0			39			9		
Storage Bay Dist (ft)			150		150	200		200	
Storage Blk Time (%)			1	10	0		6	0	
Queuing Penalty (veh)			16	9	0		2	0	

**Intersection: 2: Coolidge St & North Main St, Interval #1**

Movement	EB	WB	NB	SB	SB
Directions Served	R	LR	TR	L	TR
Maximum Queue (ft)	46	164	270	76	201
Average Queue (ft)	22	92	100	31	63
95th Queue (ft)	67	216	295	86	289
Link Distance (ft)	286	310	310		421
Upstream Blk Time (%)		3	3		2
Queuing Penalty (veh)		0	34		20
Storage Bay Dist (ft)				125	
Storage Blk Time (%)				1	4
Queuing Penalty (veh)				7	2

**Intersection: 2: Coolidge St & North Main St, Interval #2**

Movement	EB	WB	NB	SB	SB
Directions Served	R	LR	TR	L	TR
Maximum Queue (ft)	34	174	258	59	90
Average Queue (ft)	9	78	44	21	7
95th Queue (ft)	28	239	187	52	96
Link Distance (ft)	286	310	310		421
Upstream Blk Time (%)		9	0		0
Queuing Penalty (veh)		0	3		1
Storage Bay Dist (ft)				125	
Storage Blk Time (%)					0
Queuing Penalty (veh)					0

**Intersection: 2: Coolidge St & North Main St, All Intervals**

Movement	EB	WB	NB	SB	SB
Directions Served	R	LR	TR	L	TR
Maximum Queue (ft)	51	194	289	89	238
Average Queue (ft)	13	82	57	23	21
95th Queue (ft)	41	234	219	63	161
Link Distance (ft)	286	310	310		421
Upstream Blk Time (%)		7	1		1
Queuing Penalty (veh)		0	11		6
Storage Bay Dist (ft)				125	
Storage Blk Time (%)				0	1
Queuing Penalty (veh)				2	0

**Intersection: 3: Nursery St & North Main St, Interval #1**

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	47	53	177	237
Average Queue (ft)	20	27	34	77
95th Queue (ft)	66	62	159	283
Link Distance (ft)	276		230	310
Upstream Blk Time (%)			2	4
Queuing Penalty (veh)			25	41
Storage Bay Dist (ft)		50		
Storage Blk Time (%)		3	3	
Queuing Penalty (veh)		29	1	

**Intersection: 3: Nursery St & North Main St, Interval #2**

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	41	49	116	171
Average Queue (ft)	9	17	13	15
95th Queue (ft)	34	48	78	100
Link Distance (ft)	276		230	310
Upstream Blk Time (%)			0	0
Queuing Penalty (veh)			1	3
Storage Bay Dist (ft)		50		
Storage Blk Time (%)		1	1	
Queuing Penalty (veh)		9	0	

**Intersection: 3: Nursery St & North Main St, All Intervals**

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	56	58	196	278
Average Queue (ft)	11	19	18	30
95th Queue (ft)	44	52	103	163
Link Distance (ft)	276		230	310
Upstream Blk Time (%)			1	1
Queuing Penalty (veh)			7	13
Storage Bay Dist (ft)		50		
Storage Blk Time (%)		1	1	
Queuing Penalty (veh)		14	0	

**Intersection: 4: Wimer St & North Main St, Interval #1**

Movement	EB	WB	NB	SB	SB
Directions Served	R	R	TR	L	TR
Maximum Queue (ft)	96	190	82	123	214
Average Queue (ft)	52	139	16	85	81
95th Queue (ft)	105	257	82	143	259
Link Distance (ft)	266	205	162		230
Upstream Blk Time (%)		36	2		7
Queuing Penalty (veh)		0	17		70
Storage Bay Dist (ft)				100	
Storage Blk Time (%)				20	1
Queuing Penalty (veh)				168	1

**Intersection: 4: Wimer St & North Main St, Interval #2**

Movement	EB	WB	NB	SB	SB
Directions Served	R	R	TR	L	TR
Maximum Queue (ft)	86	193	64	120	164
Average Queue (ft)	38	82	4	56	15
95th Queue (ft)	73	185	42	107	106
Link Distance (ft)	266	205	162		230
Upstream Blk Time (%)		10	0		1
Queuing Penalty (veh)		0	1		5
Storage Bay Dist (ft)				100	
Storage Blk Time (%)				4	
Queuing Penalty (veh)				29	

**Intersection: 4: Wimer St & North Main St, All Intervals**

Movement	EB	WB	NB	SB	SB
Directions Served	R	R	TR	L	TR
Maximum Queue (ft)	104	204	93	124	240
Average Queue (ft)	42	96	7	63	31
95th Queue (ft)	82	210	54	120	158
Link Distance (ft)	266	205	162		230
Upstream Blk Time (%)		17	0		2
Queuing Penalty (veh)		0	5		21
Storage Bay Dist (ft)				100	
Storage Blk Time (%)				8	0
Queuing Penalty (veh)				64	0

Intersection: 5: Van Ness Ave & North Main St, Interval #1

Movement	WB	NB	SB
Directions Served	R	T	T
Maximum Queue (ft)	129	89	81
Average Queue (ft)	76	17	18
95th Queue (ft)	140	126	98
Link Distance (ft)	278	386	162
Upstream Blk Time (%)		1	1
Queuing Penalty (veh)		7	10
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Van Ness Ave & North Main St, Interval #2

Movement	WB	NB	SB
Directions Served	R	T	T
Maximum Queue (ft)	149	76	47
Average Queue (ft)	59	6	3
95th Queue (ft)	131	71	30
Link Distance (ft)	278	386	162
Upstream Blk Time (%)	1	0	0
Queuing Penalty (veh)	0	1	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Van Ness Ave & North Main St, All Intervals

Movement	WB	NB	SB
Directions Served	R	T	T
Maximum Queue (ft)	160	116	108
Average Queue (ft)	63	9	6
95th Queue (ft)	134	87	54
Link Distance (ft)	278	386	162
Upstream Blk Time (%)	1	0	0
Queuing Penalty (veh)	0	2	3
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 6: Manzanita St & North Main St, Interval #1**

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	79	75	78	41	49	316
Average Queue (ft)	37	39	38	6	12	118
95th Queue (ft)	91	104	85	60	65	355
Link Distance (ft)	258	211		216		386
Upstream Blk Time (%)		1		1		2
Queuing Penalty (veh)		0		6		17
Storage Bay Dist (ft)			100		250	
Storage Blk Time (%)			2	1		4
Queuing Penalty (veh)			18	1		1

**Intersection: 6: Manzanita St & North Main St, Interval #2**

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	76	96	78	44	27	206
Average Queue (ft)	32	30	30	3	8	28
95th Queue (ft)	74	76	68	41	26	148
Link Distance (ft)	258	211		216		386
Upstream Blk Time (%)				0		0
Queuing Penalty (veh)				1		2
Storage Bay Dist (ft)			100		250	
Storage Blk Time (%)			0	0		1
Queuing Penalty (veh)			0	0		0

**Intersection: 6: Manzanita St & North Main St, All Intervals**

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	92	112	92	52	56	360
Average Queue (ft)	33	32	32	4	9	50
95th Queue (ft)	78	84	72	46	39	219
Link Distance (ft)	258	211		216		386
Upstream Blk Time (%)		0		0		1
Queuing Penalty (veh)		0		2		6
Storage Bay Dist (ft)			100		250	
Storage Blk Time (%)			1	0		1
Queuing Penalty (veh)			5	0		0



Existing Traffic Conditions  
 Queuing and Blocking Report

Weekday PM Peak Hour  
 6/1/2011

Intersection: 7: Central Ave & North Main St, Interval #1

Movement	WB	NB	SB
Directions Served	R	T	T
Maximum Queue (ft)	53	27	224
Average Queue (ft)	25	3	149
95th Queue (ft)	58	25	289
Link Distance (ft)	68	82	216
Upstream Blk Time (%)	0	0	7
Queuing Penalty (veh)	0	4	64
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Central Ave & North Main St, Interval #2

Movement	WB	NB	SB
Directions Served	R	T	T
Maximum Queue (ft)	53	8	224
Average Queue (ft)	18	1	94
95th Queue (ft)	42	14	237
Link Distance (ft)	68	82	216
Upstream Blk Time (%)	0	0	2
Queuing Penalty (veh)	0	1	17
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Central Ave & North Main St, All Intervals

Movement	WB	NB	SB
Directions Served	R	T	T
Maximum Queue (ft)	61	27	229
Average Queue (ft)	20	1	107
95th Queue (ft)	47	17	255
Link Distance (ft)	68	82	216
Upstream Blk Time (%)	0	0	4
Queuing Penalty (veh)	0	1	29
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Existing Traffic Conditions  
 Queuing and Blocking Report

Weekday PM Peak Hour  
 6/1/2011

Intersection: 8: Laurel St & North Main St, Interval #1

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	93	32	57	342	73	141
Average Queue (ft)	55	28	15	153	49	103
95th Queue (ft)	98	41	60	349	85	156
Link Distance (ft)	277	27		738		82
Upstream Blk Time (%)		38			3	16
Queuing Penalty (veh)		20			0	144
Storage Bay Dist (ft)			100		100	
Storage Blk Time (%)			0	7	3	16
Queuing Penalty (veh)			0	1	22	16

Intersection: 8: Laurel St & North Main St, Interval #2

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	113	32	38	431	73	132
Average Queue (ft)	50	24	8	117	46	78
95th Queue (ft)	98	44	31	309	82	139
Link Distance (ft)	277	27		738		82
Upstream Blk Time (%)		30		0	2	10
Queuing Penalty (veh)		14		0	0	74
Storage Bay Dist (ft)			100		100	
Storage Blk Time (%)				5	2	10
Queuing Penalty (veh)				1	15	9

Intersection: 8: Laurel St & North Main St, All Intervals

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	115	32	63	445	73	147
Average Queue (ft)	51	25	10	125	47	84
95th Queue (ft)	98	44	40	320	83	146
Link Distance (ft)	277	27		738		82
Upstream Blk Time (%)		32		0	2	12
Queuing Penalty (veh)		16		0	0	92
Storage Bay Dist (ft)			100		100	
Storage Blk Time (%)			0	6	2	12
Queuing Penalty (veh)			0	1	16	10

Existing Traffic Conditions  
 Queuing and Blocking Report

Weekday PM Peak Hour  
 6/1/2011

Intersection: 101: OR-99 & South Valley View Rd, Interval #1

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	LR
Maximum Queue (ft)	146	193	109	325	450	125	695
Average Queue (ft)	90	115	55	193	281	114	613
95th Queue (ft)	162	199	112	338	475	157	796
Link Distance (ft)		1274	1274	1059	1059		670
Upstream Blk Time (%)							17
Queuing Penalty (veh)							0
Storage Bay Dist (ft)	150					100	
Storage Blk Time (%)	1	2			22	4	
Queuing Penalty (veh)	3	2			137	15	

Intersection: 101: OR-99 & South Valley View Rd, Interval #2

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	LR
Maximum Queue (ft)	138	171	116	275	375	125	627
Average Queue (ft)	61	75	45	127	163	103	358
95th Queue (ft)	122	146	102	237	326	152	638
Link Distance (ft)		1274	1274	1059	1059		670
Upstream Blk Time (%)							5
Queuing Penalty (veh)							0
Storage Bay Dist (ft)	150					100	
Storage Blk Time (%)	0	1			10	3	
Queuing Penalty (veh)	0	0			51	7	

Intersection: 101: OR-99 & South Valley View Rd, All Intervals

Movement	EB	EB	EB	WB	WB	WB	SB
Directions Served	L	T	T	T	T	R	LR
Maximum Queue (ft)	157	198	129	336	459	125	696
Average Queue (ft)	68	84	47	143	192	106	420
95th Queue (ft)	135	164	105	271	382	154	736
Link Distance (ft)		1274	1274	1059	1059		670
Upstream Blk Time (%)							8
Queuing Penalty (veh)							0
Storage Bay Dist (ft)	150					100	
Storage Blk Time (%)	1	1			13	3	
Queuing Penalty (veh)	1	1			72	9	

Existing Traffic Conditions  
 Queuing and Blocking Report

Weekday PM Peak Hour  
 6/1/2011

Intersection: 102: North Main St & Helman St, Interval #1

Movement	EB	EB	WB	WB	SB
Directions Served	R	R	T	TR	TR
Maximum Queue (ft)	162	173	269	271	85
Average Queue (ft)	108	122	217	227	48
95th Queue (ft)	177	189	333	320	95
Link Distance (ft)	738		252	252	564
Upstream Blk Time (%)			29	34	
Queuing Penalty (veh)			0	0	
Storage Bay Dist (ft)		280			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 102: North Main St & Helman St, Interval #2

Movement	EB	EB	WB	WB	SB
Directions Served	R	R	T	TR	TR
Maximum Queue (ft)	197	204	270	273	111
Average Queue (ft)	113	127	190	202	48
95th Queue (ft)	188	199	308	310	95
Link Distance (ft)	738		252	252	564
Upstream Blk Time (%)			20	21	
Queuing Penalty (veh)			0	0	
Storage Bay Dist (ft)		280			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 102: North Main St & Helman St, All Intervals

Movement	EB	EB	WB	WB	SB
Directions Served	R	R	T	TR	TR
Maximum Queue (ft)	199	207	271	273	111
Average Queue (ft)	112	126	196	208	48
95th Queue (ft)	186	197	316	314	95
Link Distance (ft)	738		252	252	564
Upstream Blk Time (%)			22	25	
Queuing Penalty (veh)			0	0	
Storage Bay Dist (ft)		280			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Existing Traffic Conditions  
Queuing and Blocking Report

Weekday PM Peak Hour  
6/1/2011

Intersection: 103: Central Ave & , Interval #1

Movement	WB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	66	45
Average Queue (ft)	37	15
95th Queue (ft)	74	52
Link Distance (ft)	335	250
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 103: Central Ave & , Interval #2

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	57	9	56
Average Queue (ft)	26	1	9
95th Queue (ft)	57	12	38
Link Distance (ft)	335	27	250
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 103: Central Ave & , All Intervals

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	76	9	60
Average Queue (ft)	29	1	10
95th Queue (ft)	62	11	41
Link Distance (ft)	335	27	250
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

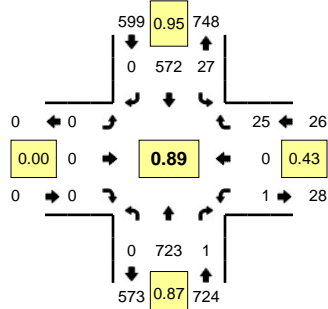
Network wide Queuing Penalty, Interval #1: 1093  
Network wide Queuing Penalty, Interval #2: 284  
Network wide Queuing Penalty, All Intervals: 486

## Appendix B – Data Collection Worksheets

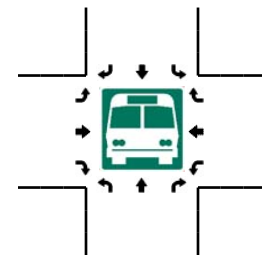
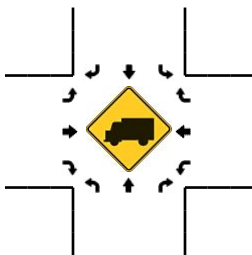
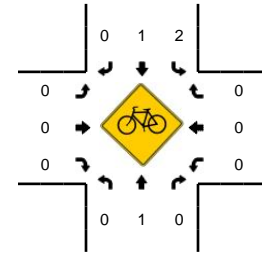
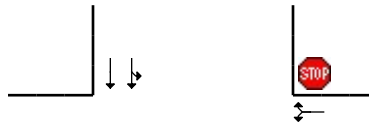
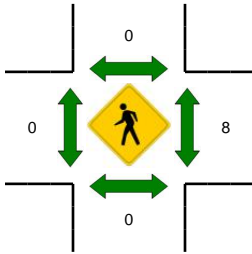
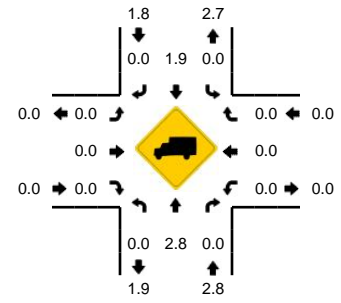
## **Additional Traffic Volume Counts**

**LOCATION:** N Main St -- Central St  
**CITY/STATE:** Ashland, OR

**QC JOB #:** 10604305  
**DATE:** 4/13/2011



**Peak-Hour: 4:15 PM -- 5:15 PM**  
**Peak 15-Min: 5:00 PM -- 5:15 PM**



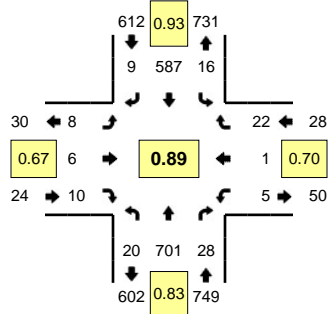
5-Min Count Period Beginning At	N Main St (Northbound)				N Main St (Southbound)				Central St (Eastbound)				Central St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	0	46	0	0	1	44	0	0	0	0	0	0	0	0	0	0	91	
3:35 PM	0	56	0	0	2	47	0	0	0	0	0	0	0	0	2	0	107	
3:40 PM	0	52	0	0	1	55	0	0	0	0	0	0	0	0	2	0	110	
3:45 PM	0	39	0	0	1	65	0	0	0	0	0	0	0	0	3	0	108	
3:50 PM	0	48	0	0	0	60	0	0	0	0	0	0	0	0	0	0	108	
3:55 PM	0	64	0	0	1	44	0	0	0	0	0	0	0	0	2	0	111	
4:00 PM	0	73	0	0	2	37	0	0	0	0	0	0	0	0	1	0	113	
4:05 PM	0	89	0	0	1	39	0	0	0	0	0	0	0	0	1	0	130	
4:10 PM	0	51	0	0	0	61	0	0	0	0	0	0	0	0	0	0	112	
4:15 PM	0	65	0	0	0	50	0	0	0	0	0	0	0	0	1	0	116	
4:20 PM	0	38	1	0	0	52	0	0	0	0	0	0	0	0	0	0	91	
4:25 PM	0	67	0	0	3	52	0	0	0	0	0	0	0	0	0	0	122	1319
4:30 PM	0	46	0	0	2	48	0	0	0	0	0	0	0	0	2	0	98	1326
4:35 PM	0	61	0	0	2	43	0	0	0	0	0	0	0	0	0	0	106	1325
4:40 PM	0	65	0	0	5	35	0	0	0	0	0	0	0	0	4	0	109	1324
4:45 PM	0	52	0	0	1	59	0	0	0	0	0	0	0	0	1	0	113	1329
4:50 PM	0	50	0	0	3	44	0	0	0	0	0	0	0	0	1	0	98	1319
4:55 PM	0	70	0	0	4	43	0	0	0	0	0	0	0	0	2	0	119	1327
5:00 PM	0	58	0	0	3	40	0	0	0	0	0	0	0	0	4	0	105	1319
5:05 PM	0	63	0	0	2	51	0	0	0	0	0	0	0	0	5	0	121	1310
5:10 PM	0	88	0	0	2	55	0	0	0	0	0	0	1	0	5	0	151	1349
5:15 PM	0	63	0	0	1	36	0	0	0	0	0	0	0	0	2	0	102	1335
5:20 PM	0	58	0	0	0	62	0	0	0	0	0	0	0	0	2	0	122	1366
5:25 PM	0	46	0	0	2	48	0	0	0	0	0	0	0	0	1	0	97	1341
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
All Vehicles	0	836	0	0	28	584	0	0	0	0	0	0	4	0	56	0	1508	
Heavy Trucks	0	16	0	0	0	8	0	0	0	0	0	0	0	0	0	0	24	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

Comments:

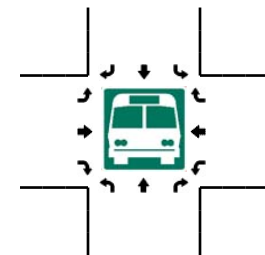
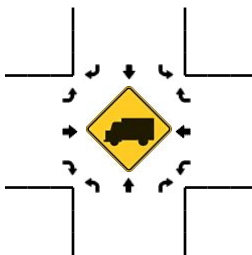
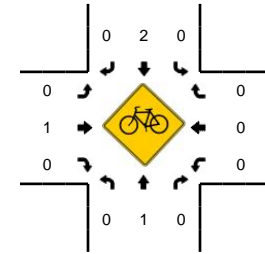
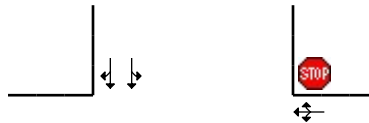
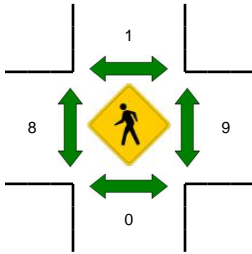
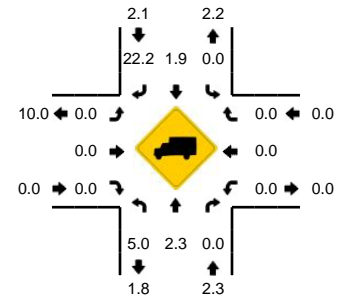


**LOCATION:** N Main St -- Manzanita St  
**CITY/STATE:** Ashland, OR

**QC JOB #:** 10604304  
**DATE:** 4/13/2011



**Peak-Hour: 4:15 PM -- 5:15 PM**  
**Peak 15-Min: 5:00 PM -- 5:15 PM**

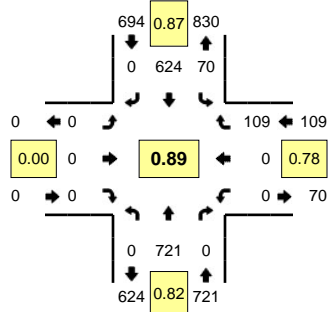


5-Min Count Period Beginning At	N Main St (Northbound)				N Main St (Southbound)				Manzanita St (Eastbound)				Manzanita St (Westbound)				Total	Hourly Totals	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U			
3:30 PM	3	48	1	0	2	47	0	0	3	0	1	0	0	0	0	4	0	109	
3:35 PM	1	51	0	0	1	45	0	0	0	0	0	0	0	0	0	2	0	100	
3:40 PM	0	55	1	0	4	60	1	0	1	0	2	0	0	1	0	0	0	125	
3:45 PM	2	40	0	0	5	58	0	0	0	0	1	0	0	0	0	1	0	107	
3:50 PM	2	43	2	0	2	59	1	0	0	1	0	0	2	0	1	0	0	113	
3:55 PM	2	65	1	0	4	41	1	0	0	0	4	0	1	1	1	0	0	121	
4:00 PM	0	61	2	0	2	34	2	0	0	0	1	0	1	1	0	0	0	104	
4:05 PM	3	94	2	0	2	40	0	0	1	0	0	0	0	0	5	0	0	147	
4:10 PM	1	52	1	0	1	55	2	0	1	0	0	0	2	0	1	0	0	116	
4:15 PM	5	61	3	0	1	55	0	0	3	1	0	0	1	1	0	0	0	131	
4:20 PM	0	33	2	0	2	45	0	0	2	1	0	0	0	0	2	0	0	87	
4:25 PM	0	66	3	0	4	57	1	0	0	1	1	0	1	0	2	0	0	136	1396
4:30 PM	0	48	0	0	1	45	1	0	0	0	2	0	1	0	3	0	0	101	1388
4:35 PM	2	60	1	0	2	44	0	0	1	0	1	0	0	0	0	0	0	111	1399
4:40 PM	1	63	3	0	1	39	1	0	0	1	1	0	0	0	2	0	0	112	1386
4:45 PM	1	51	2	0	0	58	2	0	0	1	0	0	0	0	1	0	0	116	1395
4:50 PM	2	47	3	0	1	46	1	0	1	0	1	0	0	0	2	0	0	104	1386
4:55 PM	2	61	4	0	1	46	2	0	1	0	1	0	1	0	1	0	0	120	1385
5:00 PM	3	58	3	0	2	41	1	0	0	0	1	0	1	0	2	0	0	112	1393
5:05 PM	2	64	3	0	0	54	0	0	0	1	0	0	0	0	3	0	0	127	1373
5:10 PM	2	89	1	0	1	57	0	0	0	0	2	0	0	0	4	0	0	156	1413
5:15 PM	3	58	4	0	1	35	1	0	0	0	1	0	0	0	1	0	0	104	1386
5:20 PM	1	57	0	0	4	61	2	0	0	0	0	0	0	0	4	0	0	129	1428
5:25 PM	0	48	1	0	0	51	1	0	0	0	2	0	0	0	2	0	0	105	1397
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total		
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U			
All Vehicles	28	844	28	0	12	608	4	0	0	4	12	0	4	0	36	0	0	1580	
Heavy Trucks	0	20	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	28	
Pedestrians		0				0				0				8				8	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0			0	
Railroad																			
Stopped Buses																			

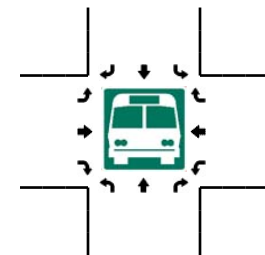
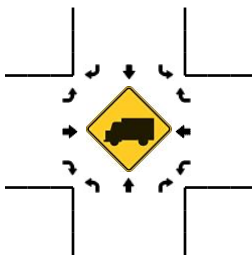
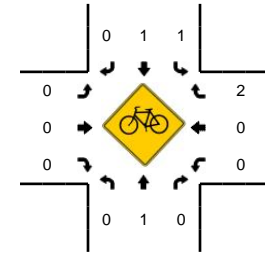
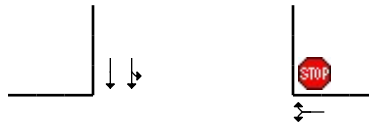
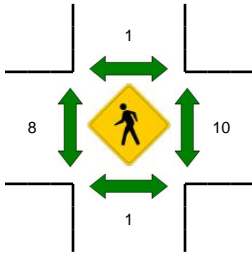
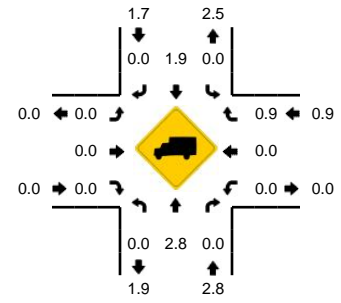
Comments:

**LOCATION:** N Main St -- Van Ness Ave  
**CITY/STATE:** Ashland, OR

**QC JOB #:** 10604303  
**DATE:** 4/13/2011



**Peak-Hour: 4:15 PM -- 5:15 PM**  
**Peak 15-Min: 5:00 PM -- 5:15 PM**

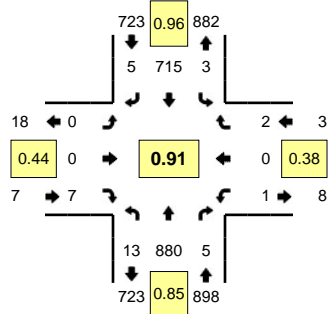


5-Min Count Period Beginning At	N Main St (Northbound)				N Main St (Southbound)				Van Ness Ave (Eastbound)				Van Ness Ave (Westbound)				Total	Hourly Totals	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U			
3:30 PM	0	55	0	0	3	47	0	0	0	0	0	0	0	0	0	10	0	115	
3:35 PM	0	59	0	0	3	53	0	0	0	0	0	0	0	0	0	11	0	126	
3:40 PM	0	57	0	0	7	61	0	0	0	0	0	0	0	0	0	8	0	133	
3:45 PM	0	43	0	0	1	66	0	0	0	0	0	0	0	0	0	9	0	119	
3:50 PM	0	41	0	0	7	65	0	0	0	0	0	0	0	0	0	11	0	124	
3:55 PM	0	60	0	0	3	42	0	0	0	0	0	0	0	0	0	8	0	113	
4:00 PM	0	59	2	0	2	43	0	0	0	0	0	0	0	0	0	10	0	116	
4:05 PM	0	98	0	0	3	40	0	0	0	0	0	0	0	1	0	11	0	153	
4:10 PM	0	47	0	0	3	68	0	0	0	0	0	0	0	0	0	9	0	127	
4:15 PM	0	57	0	0	12	61	0	0	0	0	0	0	0	0	0	6	0	136	
4:20 PM	0	40	0	0	7	53	0	0	0	0	0	0	0	0	0	16	0	116	
4:25 PM	0	65	0	0	6	61	0	0	0	0	0	0	0	0	0	8	0	140	1518
4:30 PM	0	51	0	0	5	45	0	0	0	0	0	0	0	0	0	9	0	110	1513
4:35 PM	0	61	0	0	4	49	0	0	0	0	0	0	0	0	0	9	0	123	1510
4:40 PM	0	64	0	0	9	46	0	0	0	0	0	0	0	0	0	4	0	123	1500
4:45 PM	0	50	0	0	4	59	0	0	0	0	0	0	0	0	0	6	0	119	1500
4:50 PM	0	49	0	0	5	47	0	0	0	0	0	0	0	0	0	8	0	109	1485
4:55 PM	0	63	0	0	1	47	0	0	0	0	0	0	0	0	0	8	0	119	1491
5:00 PM	0	61	0	0	3	43	0	0	0	0	0	0	0	0	0	7	0	114	1489
5:05 PM	0	69	0	0	4	55	0	0	0	0	0	0	0	0	0	10	0	138	1474
5:10 PM	0	91	0	0	10	58	0	0	0	0	0	0	0	0	0	18	0	177	1524
5:15 PM	0	56	0	0	5	38	0	0	0	0	0	0	0	0	0	14	0	113	1501
5:20 PM	0	59	0	0	6	67	0	0	0	0	0	0	0	0	0	5	0	137	1522
5:25 PM	0	50	0	0	7	56	0	0	0	0	0	0	0	0	0	8	0	121	1503
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total		
All Vehicles	0	884	0	0	68	624	0	0	0	0	0	0	0	0	140	0	1716		
Heavy Trucks	0	16	0	0	0	8	0	0	0	0	0	0	0	0	0	0	24		
Pedestrians		4				4				0				8			16		
Bicycles	0	0	0		0	0	0		0	0	0		0	0	1		1		
Railroad																			
Stopped Buses																			

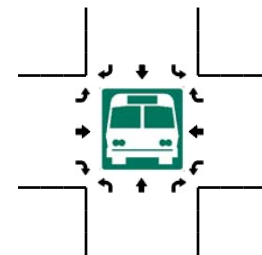
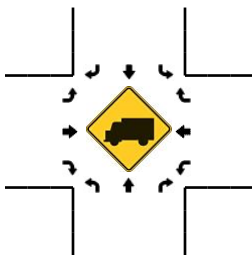
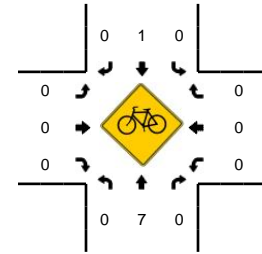
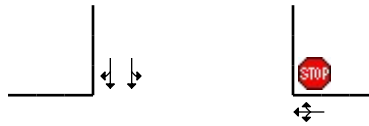
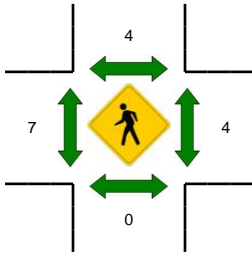
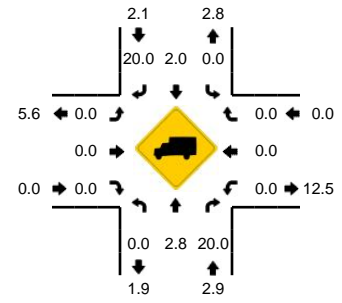
Comments:

**LOCATION:** N Main St -- Nursery St  
**CITY/STATE:** Ashland, OR

**QC JOB #:** 10604302  
**DATE:** 4/13/2011



**Peak-Hour: 4:15 PM -- 5:15 PM**  
**Peak 15-Min: 5:00 PM -- 5:15 PM**

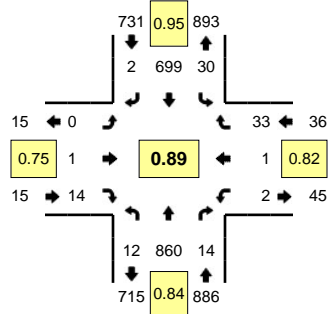


5-Min Count Period Beginning At	N Main St (Northbound)				N Main St (Southbound)				Nursery St (Eastbound)				Nursery St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	2	66	0	0	0	54	0	0	0	0	0	0	0	0	0	0	122	
3:35 PM	2	76	0	0	0	63	0	0	1	0	0	0	0	0	0	0	142	
3:40 PM	3	63	0	0	0	71	0	0	1	0	0	0	1	0	0	0	139	
3:45 PM	1	53	0	0	0	69	1	0	0	0	0	0	0	0	0	0	124	
3:50 PM	0	56	0	0	3	74	0	0	0	0	0	0	0	0	0	0	133	
3:55 PM	0	74	0	0	0	53	0	0	0	0	0	0	0	0	0	0	127	
4:00 PM	1	75	0	0	0	49	3	0	0	0	0	0	0	0	0	0	128	
4:05 PM	3	115	0	0	0	49	1	0	0	0	2	0	0	0	0	0	170	
4:10 PM	3	63	0	0	0	69	0	0	0	0	0	0	0	0	2	0	137	
4:15 PM	2	78	0	0	1	66	0	0	0	0	0	0	0	0	1	0	148	
4:20 PM	0	66	0	0	0	63	0	0	0	0	0	0	0	0	0	0	129	
4:25 PM	1	76	0	0	0	57	1	0	0	0	1	0	0	0	1	0	137	1636
4:30 PM	1	69	0	0	0	59	1	0	0	0	0	0	1	0	0	0	131	1645
4:35 PM	1	74	0	0	0	56	0	0	0	0	1	0	0	0	0	0	132	1635
4:40 PM	0	71	1	0	0	55	0	0	0	0	0	0	0	0	0	0	127	1623
4:45 PM	0	58	1	0	0	72	2	0	0	0	1	0	0	0	0	0	134	1633
4:50 PM	2	60	2	0	0	53	1	0	0	0	2	0	0	0	0	0	120	1620
4:55 PM	1	71	0	0	1	49	0	0	0	0	1	0	0	0	0	0	123	1616
5:00 PM	2	71	0	0	0	59	0	0	0	0	1	0	0	0	0	0	133	1621
5:05 PM	1	80	0	0	0	60	0	0	0	0	0	0	0	0	0	0	141	1592
5:10 PM	2	106	1	0	1	66	0	0	0	0	0	0	0	0	0	0	176	1631
5:15 PM	0	79	0	0	0	59	1	0	0	0	1	0	0	0	0	0	140	1623
5:20 PM	1	69	0	0	0	75	1	0	0	0	2	0	0	0	0	0	148	1642
5:25 PM	3	38	1	0	1	53	1	0	0	0	0	0	0	0	0	0	97	1602
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
All Vehicles	20	1028	4	0	4	740	0	0	0	0	4	0	0	0	0	0	1800	
Heavy Trucks	0	16	0	0	0	8	0	0	0	0	0	0	0	0	0	0	24	
Pedestrians		0				0				0				0			0	
Bicycles	0	2	0		0	0	0		0	0	0		0	0	0		2	
Railroad																		
Stopped Buses																		

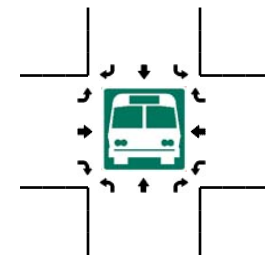
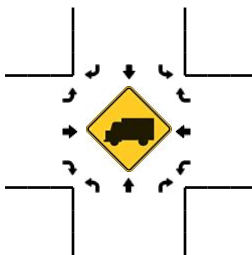
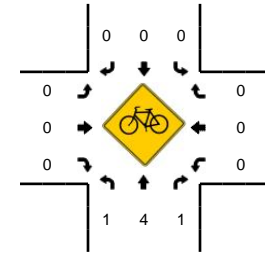
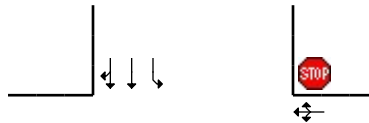
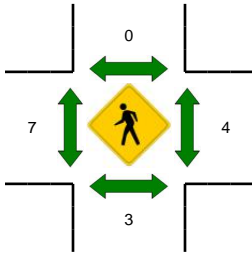
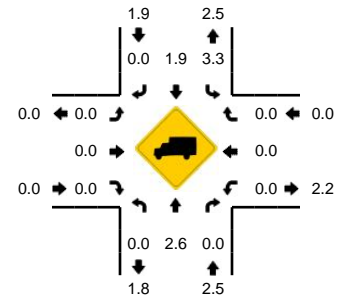
Comments:

**LOCATION:** N Main St -- Coolidge/Glenn St  
**CITY/STATE:** Ashland, OR

**QC JOB #:** 10604301  
**DATE:** 4/13/2011



**Peak-Hour: 4:15 PM -- 5:15 PM**  
**Peak 15-Min: 5:00 PM -- 5:15 PM**



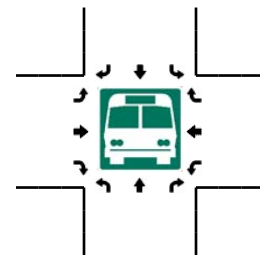
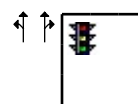
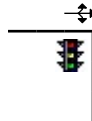
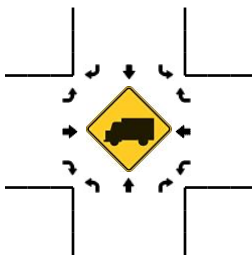
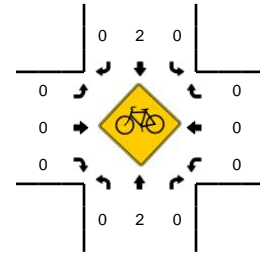
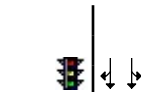
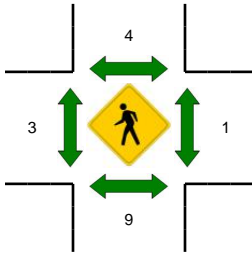
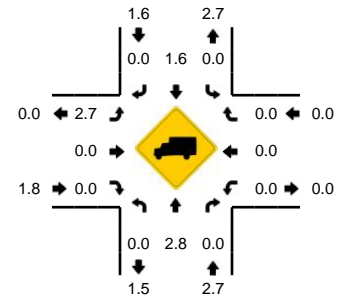
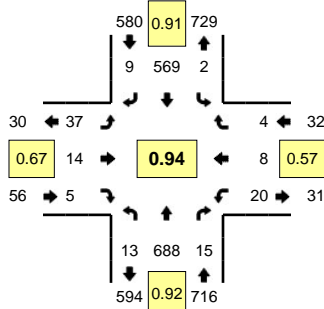
5-Min Count Period Beginning At	N Main St (Northbound)				N Main St (Southbound)				Coolidge/Glenn St (Eastbound)				Coolidge/Glenn St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	0	64	0	0	5	51	1	0	0	0	0	0	1	0	1	0	123	
3:35 PM	0	76	1	0	1	59	0	0	0	0	2	0	0	0	3	0	142	
3:40 PM	0	64	2	0	3	73	0	0	0	0	0	0	1	0	2	0	145	
3:45 PM	0	52	0	0	2	70	1	0	0	0	1	0	0	0	1	0	127	
3:50 PM	0	55	2	0	3	69	0	0	0	0	2	0	1	0	2	0	134	
3:55 PM	1	71	0	0	1	50	1	0	0	0	1	0	1	0	4	0	130	
4:00 PM	0	76	1	0	3	49	0	0	0	0	3	0	0	0	4	0	136	
4:05 PM	1	108	2	0	3	48	0	0	0	0	0	0	0	0	6	0	168	
4:10 PM	0	66	2	0	2	70	0	0	0	0	1	0	0	0	5	0	146	
4:15 PM	1	73	0	0	4	67	0	0	0	0	1	0	0	0	2	0	148	
4:20 PM	1	64	1	0	4	60	1	0	0	0	3	0	0	0	6	0	140	
4:25 PM	3	75	0	0	1	56	0	0	0	0	0	0	0	0	1	0	136	1675
4:30 PM	1	64	2	0	3	60	0	0	0	0	0	0	1	0	2	0	133	1685
4:35 PM	0	74	0	0	2	52	0	0	0	0	2	0	0	0	1	0	131	1674
4:40 PM	1	67	4	0	3	53	0	0	0	0	2	0	0	0	3	0	133	1662
4:45 PM	1	58	0	0	6	71	0	0	0	0	1	0	0	0	5	0	142	1677
4:50 PM	3	57	1	0	0	52	0	0	0	0	0	0	0	0	3	0	116	1659
4:55 PM	0	68	3	0	1	48	0	0	0	0	1	0	0	0	1	0	122	1651
5:00 PM	0	73	0	0	3	62	1	0	0	1	1	0	0	0	1	0	142	1657
5:05 PM	1	79	3	0	1	55	0	0	0	0	1	0	0	0	4	0	144	1633
5:10 PM	0	108	0	0	2	63	0	0	0	0	2	0	1	1	4	0	181	1668
5:15 PM	0	77	1	0	5	59	0	0	0	0	1	0	0	0	7	0	150	1670
5:20 PM	1	66	0	0	3	71	0	0	0	0	3	0	0	1	3	0	148	1678
5:25 PM	0	46	1	0	3	72	0	0	2	0	1	0	0	0	2	0	127	1669
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	4	1040	12	0	24	720	4	0	0	4	16	0	4	4	36	0	1868	
Heavy Trucks	0	12	0		0	8	0		0	0	0		0	0	0		20	
Pedestrians		4				0				4				0			8	
Bicycles	0	2	0		0	0	0		0	0	0		0	0	0		2	
Railroad																		
Stopped Buses																		

Comments:

**LOCATION:** N Main St -- Laurel St  
**CITY/STATE:** Ashland, OR

**QC JOB #:** 10604306  
**DATE:** 4/13/2011

**Peak-Hour: 4:15 PM -- 5:15 PM**  
**Peak 15-Min: 5:00 PM -- 5:15 PM**



5-Min Count Period Beginning At	N Main St (Northbound)				N Main St (Southbound)				Laurel St (Eastbound)				Laurel St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	1	46	1	0	0	45	0	0	1	1	2	0	1	0	1	0	99	
3:35 PM	0	51	0	0	0	45	0	0	4	1	1	0	1	1	0	0	104	
3:40 PM	0	50	1	0	0	59	0	0	0	1	2	0	2	1	0	0	116	
3:45 PM	1	37	3	0	1	65	0	0	3	0	1	0	3	0	0	0	114	
3:50 PM	1	46	1	0	0	59	0	0	3	0	0	0	1	0	0	0	111	
3:55 PM	1	58	0	0	1	44	0	0	6	1	2	0	0	1	0	0	114	
4:00 PM	1	66	0	0	0	38	0	0	5	1	1	0	0	1	0	0	113	
4:05 PM	2	85	2	0	2	36	0	0	3	1	1	0	2	0	0	0	134	
4:10 PM	1	49	1	0	0	61	0	0	2	0	0	0	5	1	0	0	120	
4:15 PM	0	61	1	0	0	54	0	0	2	2	0	0	1	0	2	0	123	
4:20 PM	2	40	3	0	0	51	2	0	0	0	0	0	0	1	0	0	99	
4:25 PM	5	64	2	0	0	51	1	0	4	1	1	0	0	0	0	0	129	1376
4:30 PM	3	43	2	0	0	48	0	0	3	2	0	0	1	0	0	0	102	1379
4:35 PM	0	57	3	0	0	42	2	0	8	2	0	0	2	0	0	0	116	1391
4:40 PM	1	63	2	0	1	35	0	0	2	2	0	0	1	2	1	0	110	1385
4:45 PM	1	50	0	0	0	59	0	0	1	0	1	0	2	0	0	0	114	1385
4:50 PM	0	51	0	0	0	44	1	0	0	1	0	0	5	3	0	0	105	1379
4:55 PM	1	67	0	0	0	44	0	0	3	1	1	0	0	0	0	0	117	1382
5:00 PM	0	51	1	0	0	39	0	0	6	1	1	0	2	0	1	0	102	1371
5:05 PM	0	58	1	0	0	52	0	0	4	2	0	0	6	0	0	0	123	1360
5:10 PM	0	83	0	0	1	50	3	0	4	0	1	0	0	2	0	0	144	1384
5:15 PM	2	60	1	0	0	40	1	0	2	2	1	0	1	1	1	0	112	1373
5:20 PM	0	57	2	0	1	60	0	0	0	1	0	0	2	2	0	0	125	1399
5:25 PM	1	44	1	0	0	50	0	0	3	0	2	0	2	2	0	0	105	1375
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
All Vehicles	0	768	8	0	4	564	12	0	56	12	8	0	32	8	4	0	1476	
Heavy Trucks	0	20	0		0	8	0		0	0	0		0	0	0		28	
Pedestrians		0				4				4				4			12	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																	0	
Stopped Buses																		

Comments:

## Pedestrian and Bicycle Volume Counts

## Summary Of Bicycle Count Transportation Development Division

Site: 15292009  
County: Jackson  
City: Ashland

Date: 9/14/2009  
Hours: 2:00 PM-6:00 PM  
Highway #: 063  
St. & Hersey St.

Milepoint: 18.67  
Count Number: 1.00

Location:  
Weather: Clear

Time of Day	Summary By Movements													Entering Volumes			
	E-SE	E-W	E-NW	SE-E	SE-W	SE-NW	W-E	W-SE	W-NW	NW-E	NW-SE	NW-W	TOTAL	East	South-East	West	North-West
14:00	0	0	0	0	0	2	0	0	0	0	3	0	5	0	2	0	3
14:15	0	0	0	0	0	4	0	0	0	0	1	0	5	0	4	0	1
14:30	0	0	0	2	0	2	0	0	0	0	2	0	6	0	4	0	2
14:45	0	0	0	0	0	0	0	0	0	0	7	0	7	0	0	0	7
15:00	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	4
15:15	0	0	0	0	0	1	0	0	0	0	2	0	3	0	1	0	2
15:30	0	0	0	0	0	1	0	0	0	0	5	0	6	0	1	0	5
15:45	0	0	0	0	0	2	0	0	0	0	3	0	5	0	2	0	3
16:00	0	0	0	0	0	4	0	0	0	0	3	0	7	0	4	0	3
16:15	0	0	0	0	0	1	0	0	0	0	2	0	3	0	1	0	2
16:30	0	0	0	0	0	2	0	0	0	0	0	0	2	0	2	0	0
16:45	0	0	0	0	0	1	0	0	0	0	3	0	4	0	1	0	3
17:00	0	0	0	0	0	1	1	0	0	0	1	0	3	0	1	1	1
17:15	0	0	0	0	0	1	0	0	0	0	2	0	3	0	1	0	2
17:30	0	0	0	0	0	2	0	0	0	0	1	0	3	0	2	0	1
17:45	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0
Total Count	0	0	0	2	0	25	1	0	0	0	39	0	67	0	27	1	39
24hr Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24hr Volume	0	0	0	2	0	25	1	0	0	0	39	0	67	0	27	1	39
	0	0	0	0	0	5	1	0	0	0	6	0					

## Summary Of Bicycle Count Transportation Development Division

Site: 15242009  
County: Jackson  
City: Ashland

Date: 9/14/2009  
Hours: 2:00 PM-6:00 PM  
Highway #: 063  
assisted living retirement center  
Location:  
Weather:

Milepoint:  
Count Number:

Time of Day	Summary By Movements													TOTAL	Entering Volumes				
	E-SE	E-W	E-NW	SE-E	SE-W	SE-NW	W-E	W-SE	W-NW	NW-E	NW-SE	NW-W			East	South-East	West	North-West	
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	2	0	0	0	0	2	0	0	0	0	0	0	4	2	0	2	0	0
14:30	0	3	0	0	0	0	3	0	0	0	0	0	0	6	3	0	3	0	0
14:45	0	2	0	0	0	0	2	0	0	0	0	0	0	4	2	0	2	0	0
15:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
15:15	0	1	0	0	0	0	1	0	0	0	0	0	0	2	1	0	1	0	0
15:30	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
16:00	0	4	0	0	0	0	4	0	0	0	0	0	0	8	4	0	4	0	0
16:15	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0
16:30	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
17:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
17:15	0	1	0	0	0	2	1	0	0	0	0	0	0	4	1	2	1	0	0
17:30	0	1	0	0	0	0	1	0	0	0	0	0	0	2	1	0	1	0	0
17:45	0	1	0	0	0	0	1	0	0	0	0	0	0	2	1	0	1	0	0
Total Count	0	17	0	0	0	2	17	0	0	0	0	0	0	36	17	2	17	0	0
24hr Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24hr Volume	0	17	0	0	0	2	17	0	0	0	0	0	0	36	17	2	17	0	0
	0	1	0	0	0	0	2	0	0	0	0	0	0						



**Summary Of Pedestrian Count  
Transportation Development Division**

Site: 15292009  
County: Jackson  
City: Ashland

Date: 9/14/2009  
Hours: 2:00 PM-6:00 PM  
Highway #: 063  
@ Wimer St. & Hersey  
Location: St.  
Weather: Clear

Milepoint: 18.67  
Count Number: 1.00

Time of Day	Pedestrian			
	East	South-East	West	North-West
14:00			3	
14:15			2	
14:30	1		2	
14:45	3			
15:00			2	
15:15	6	1	2	
15:30			3	
15:45	4		4	
16:00	1			
16:15	1			
16:30	4		3	
16:45	3		5	
17:00	1	1	1	
17:15	3			
17:30	3		1	
17:45	1		3	3
<b>Total</b>	<b>31</b>	<b>2</b>	<b>31</b>	<b>3</b>

## Summary Of Pedestrian Count Transportation Development Division

Site: 15242009  
 County: Jackson  
 City: Ashland

Date: 9/14/2009  
 Hours: 2:00 PM-6:00 PM  
 Highway #: 063  
 driveway to assisted living  
 Location: retirement center  
 Weather:

Milepoint:  
 Count Number:

Time of Day	Pedestrian			
	East	South-East	West	North-West
14:00		1		
14:15		1		1
14:30				1
14:45	1		1	1
15:00	3		1	1
15:15	1		5	2
15:30		1	2	3
15:45				
16:00				
16:15				1
16:30		1		1
16:45				
17:00				1
17:15				3
17:30				
17:45			2	4
<b>Total</b>	<b>5</b>	<b>4</b>	<b>11</b>	<b>19</b>

## Travel Time Runs



16285 SW 85th Ave, Ste 302  
 Tigard, OR 97224  
 503-620-4242  
[www.qualitycounts.net](http://www.qualitycounts.net)

Ashland Travel Time Runs  
 04/13/2011 3:30 to 5:30pm

**Northbound**

Departure and Arrival Times

	Depart from Helman & N Main	Depart from Maple & N Main	Arrive at Valley View & N Main
1	3:31:34	3:33:08	3:35:23
2	3:41:55	3:43:21	3:46:01
3	3:53:22	3:54:35	3:56:59
4	4:03:32	4:04:41	4:07:07
5	4:14:07	4:15:34	4:17:40
6	4:23:48	4:24:53	4:27:07
7	4:33:54	4:35:54	4:38:33
8	4:45:20	4:46:28	4:48:33
9	4:55:38	4:57:01	4:59:27
10	5:07:10	5:08:45	5:11:21
11	5:17:25	5:18:32	5:21:32
12	5:27:14	5:28:31	5:31:03

Travel Time

Helman to Maple	Maple to Valley View	Helman to Valley View
0:01:34	0:02:15	0:03:49
0:01:26	0:02:40	0:04:06
0:01:13	0:02:24	0:03:37
0:01:09	0:02:26	0:03:35
0:01:27	0:02:06	0:03:33
0:01:05	0:02:14	0:03:19
0:02:00	0:02:39	0:04:39
0:01:08	0:02:05	0:03:13
0:01:23	0:02:26	0:03:49
0:01:35	0:02:36	0:04:11
0:01:07	0:03:00	0:04:07
0:01:17	0:02:32	0:03:49
<b>0:01:22</b>	<b>0:02:27</b>	<b>0:03:49</b>

**Southbound**

Departure and Arrival Times

	Depart from Valley View & N Main	Depart from Maple & N Main	Arrive at Helman & N Main
1	3:36:07	3:38:23	3:40:00
2	3:47:19	3:49:42	3:51:16
3	3:58:08	4:00:21	4:01:38
4	4:08:13	4:10:42	4:12:23
5	4:18:29	4:20:43	4:22:15
6	4:28:01	4:30:20	4:32:08
7	4:39:34	4:41:51	4:43:12
8	4:49:43	4:51:50	4:53:09
9	5:00:36	5:03:15	5:04:39
10	5:12:05	5:14:19	5:15:57
11	5:22:22	5:24:31	5:25:48
12	5:32:08	5:34:26	5:36:20

Travel Time

Valley View to Maple	Maple to Helman	Valley View to Helman
0:02:16	0:01:37	0:03:53
0:02:23	0:01:34	0:03:57
0:02:13	0:01:17	0:03:30
0:02:29	0:01:41	0:04:10
0:02:14	0:01:32	0:03:46
0:02:19	0:01:48	0:04:07
0:02:17	0:01:21	0:03:38
0:02:07	0:01:19	0:03:26
0:02:39	0:01:24	0:04:03
0:02:14	0:01:38	0:03:52
0:02:09	0:01:17	0:03:26
0:02:18	0:01:54	0:04:12

## Speed Data

<b>LOCATION:</b> North Main <b>SPECIFIC LOCATION:</b> 100 ft from Coolidge St <b>CITY/STATE:</b> Ashland, OR																<b>QC JOB #:</b> 10604307 <b>DIRECTION:</b> NB <b>DATE:</b> Apr 13 2011		
Start Time	1 10	11 12	13 14	15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31 32	33 34	35 36	37 38	Total	Pace Speed	Number in Pace
12:00 AM																		
1:00 AM																		
2:00 AM																		
3:00 AM																		
4:00 AM																		
5:00 AM																		
6:00 AM																		
7:00 AM																		
8:00 AM																		
9:00 AM																		
10:00 AM																		
11:00 AM																		
12:00 PM																		
1:00 PM																		
2:00 PM																		
3:00 PM	13	0	0	1	0	0	0	5	26	58	88	79	57	26	5			
4:00 PM	25	0	0	1	0	1	3	29	68	157	252	163	96	31	12			
5:00 PM	11	0	0	0	1	0	2	7	26	82	110	97	63	29	8			
6:00 PM																		
7:00 PM																		
8:00 PM																		
9:00 PM																		
10:00 PM																		
11:00 PM																		
<b>Day Total</b>	49	0	0	2	1	1	5	41	120	297	450	339	216	86	25			
<b>Percent</b>	3.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.3%	2.5%	7.3%	18.1%	27.5%	20.7%	13.2%	5.3%	1.5%			
AM Peak Volume																		
PM Peak Volume	4:00 PM 25			3:30 PM 1	5:00 PM 1	4:00 PM 1	4:00 PM 3	4:00 PM 29	4:00 PM 68	4:00 PM 157	4:00 PM 252	4:00 PM 163	4:00 PM 96	4:00 PM 31	4:00 PM 12			
<b>Comments:</b>	tubes need to be placed outside of any queues from the North Main and Maple St intersection																	

<b>LOCATION:</b> North Main <b>SPECIFIC LOCATION:</b> 100 ft from Coolidge St <b>CITY/STATE:</b> Ashland, OR																<b>QC JOB #:</b> 10604307 <b>DIRECTION:</b> NB <b>DATE:</b> Apr 13 2011		
Start Time	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	Total	Pace Speed	Number in Pace
	40	42	44	46	48	50	52	54	56	58	60	62	64	66	999			
12:00 AM																		
1:00 AM																		
2:00 AM																		
3:00 AM																		
4:00 AM																		
5:00 AM																		
6:00 AM																		
7:00 AM																		
8:00 AM																		
9:00 AM																		
10:00 AM																		
11:00 AM																		
12:00 PM																		
1:00 PM																		
2:00 PM																		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	358	25-34	308
4:00 PM	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	842	25-34	736
5:00 PM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	438	27-36	381
6:00 PM																		
7:00 PM																		
8:00 PM																		
9:00 PM																		
10:00 PM																		
11:00 PM																		
<b>Day Total</b>	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1638	25-34	1422
<b>Percent</b>	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Volume																		
PM Peak Volume	4:00 PM	4:00 PM														4:00 PM		
	3	1														842		
<b>Comments:</b> tubes need to be placed outside of any queues from the North Main and Maple St intersection																		

**SUMMARY - Tube Count - Speed Data**

<b>LOCATION:</b> North Main															<b>QC JOB #:</b> 10604307			
<b>SPECIFIC LOCATION:</b> 100 ft from Coolidge St															<b>DIRECTION:</b> NB			
<b>CITY/STATE:</b> Ashland, OR															<b>DATE:</b> Apr 13 2011 - Apr 13 2011			
Start Time	1 10	11 12	13 14	15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31 32	33 34	35 36	37 38	Total	Pace Speed	Number in Pace
<b>Grand Total</b>	49	0	0	2	1	1	5	41	120	297	450	339	216	86	25			
<b>Percent</b>	3.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.3%	2.5%	7.3%	18.1%	27.5%	20.7%	13.2%	5.3%	1.5%			
<b>Cumulative Percent</b>	3.0%	3.0%	3.0%	3.1%	3.2%	3.2%	3.5%	6.0%	13.4%	31.5%	59.0%	79.7%	92.9%	98.1%	99.6%			
<b>Comments:</b> tubes need to be placed outside of any queues from the North Main and Maple St intersection																		





**SUMMARY - Tube Count - Speed Data**

<b>LOCATION:</b> North Main															<b>QC JOB #:</b> 10604307			
<b>SPECIFIC LOCATION:</b> 100 ft from Coolidge St															<b>DIRECTION:</b> NB			
<b>CITY/STATE:</b> Ashland, OR															<b>DATE:</b> Apr 13 2011 - Apr 13 2011			
Start Time	39 40	41 42	43 44	45 46	47 48	49 50	51 52	53 54	55 56	57 58	59 60	61 62	63 64	65 66	67 999	Total	Pace Speed	Number in Pace
<b>Grand Total</b>	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6	25-34	1422
<b>Percent</b>	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
<b>Cumulative Percent</b>	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			
															<b>85th Percentile:</b> 32 MPH <b>Mean Speed(Average):</b> 28 MPH <b>Median:</b> 29 MPH <b>Mode:</b> 29 MPH			
<b>Comments:</b> tubes need to be placed outside of any queues from the North Main and Maple St intersection																		



<b>LOCATION:</b> North Main <b>SPECIFIC LOCATION:</b> 100 ft from Coolidge St <b>CITY/STATE:</b> Ashland, OR																<b>QC JOB #:</b> 10604307 <b>DIRECTION:</b> SB <b>DATE:</b> Apr 13 2011			
Start Time	1 10	11 12	13 14	15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31 32	33 34	35 36	37 38	Total	Pace Speed	Number in Pace	
12:00 AM																			
1:00 AM																			
2:00 AM																			
3:00 AM																			
4:00 AM																			
5:00 AM																			
6:00 AM																			
7:00 AM																			
8:00 AM																			
9:00 AM																			
10:00 AM																			
11:00 AM																			
12:00 PM																			
1:00 PM																			
2:00 PM																			
3:00 PM	2	0	0	0	0	2	1	11	38	108	106	57	29	9	3				
4:00 PM	5	0	0	3	1	4	16	48	94	176	162	102	43	21	3				
5:00 PM	7	0	3	1	1	0	6	19	64	95	85	51	21	6	0				
6:00 PM																			
7:00 PM																			
8:00 PM																			
9:00 PM																			
10:00 PM																			
11:00 PM																			
<b>Day Total</b>	14	0	3	4	2	6	23	78	196	379	353	210	93	36	6				
<b>Percent</b>	1.0%	0.0%	0.2%	0.3%	0.1%	0.4%	1.6%	5.6%	14.0%	27.0%	25.1%	15.0%	6.6%	2.6%	0.4%				
AM Peak Volume																			
PM Peak Volume	5:00 PM	5:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	3:30 PM				
	7	3	3	1	4	16	48	94	176	162	102	43	21	3					
<b>Comments:</b>	tubes need to be placed outside of any queues from the North Main and Maple St intersection																		

<b>LOCATION:</b> North Main <b>SPECIFIC LOCATION:</b> 100 ft from Coolidge St <b>CITY/STATE:</b> Ashland, OR																<b>QC JOB #:</b> 10604307 <b>DIRECTION:</b> SB <b>DATE:</b> Apr 13 2011		
Start Time	39 40	41 42	43 44	45 46	47 48	49 50	51 52	53 54	55 56	57 58	59 60	61 62	63 64	65 66	67 999	Total	Pace Speed	Number in Pace
12:00 AM																		
1:00 AM																		
2:00 AM																		
3:00 AM																		
4:00 AM																		
5:00 AM																		
6:00 AM																		
7:00 AM																		
8:00 AM																		
9:00 AM																		
10:00 AM																		
11:00 AM																		
12:00 PM																		
1:00 PM																		
2:00 PM																		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	366	25-34	338
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	679	23-32	582
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	359	25-34	316
6:00 PM																		
7:00 PM																		
8:00 PM																		
9:00 PM																		
10:00 PM																		
11:00 PM																		
<b>Day Total</b>	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1404	25-34	1231
<b>Percent</b>	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Volume																		
PM Peak Volume	4:00 PM 1															4:00 PM 679		
<b>Comments:</b> tubes need to be placed outside of any queues from the North Main and Maple St intersection																		

**SUMMARY - Tube Count - Speed Data**

<b>LOCATION:</b> North Main															<b>QC JOB #:</b> 10604307			
<b>SPECIFIC LOCATION:</b> 100 ft from Coolidge St															<b>DIRECTION:</b> SB			
<b>CITY/STATE:</b> Ashland, OR															<b>DATE:</b> Apr 13 2011 - Apr 13 2011			
Start Time	1 10	11 12	13 14	15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31 32	33 34	35 36	37 38	Total	Pace Speed	Number in Pace
<b>Grand Total</b>	14	0	3	4	2	6	23	78	196	379	353	210	93	36	6			
<b>Percent</b>	1.0%	0.0%	0.2%	0.3%	0.1%	0.4%	1.6%	5.6%	14.0%	27.0%	25.1%	15.0%	6.6%	2.6%	0.4%			
<b>Cumulative Percent</b>	1.0%	1.0%	1.2%	1.5%	1.6%	2.1%	3.7%	9.3%	23.2%	50.2%	75.4%	90.3%	96.9%	99.5%	99.9%			
<i>Comments:</i> tubes need to be placed outside of any queues from the North Main and Maple St intersection																		



**SUMMARY - Tube Count - Speed Data**

<b>LOCATION:</b> North Main															<b>QC JOB #:</b> 10604307			
<b>SPECIFIC LOCATION:</b> 100 ft from Coolidge St															<b>DIRECTION:</b> SB			
<b>CITY/STATE:</b> Ashland, OR															<b>DATE:</b> Apr 13 2011 - Apr 13 2011			
<b>Start Time</b>	39 40	41 42	43 44	45 46	47 48	49 50	51 52	53 54	55 56	57 58	59 60	61 62	63 64	65 66	67 999	<b>Total</b>	<b>Pace Speed</b>	<b>Number in Pace</b>
<b>Grand Total Percent</b>	1 0.1%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	1	25-34	1231
<b>Cumulative Percent</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%			
															<b>85th Percentile:</b> 31 MPH <b>Mean Speed(Average):</b> 27 MPH <b>Median:</b> 27 MPH <b>Mode:</b> 27 MPH			
<b>Comments:</b> tubes need to be placed outside of any queues from the North Main and Maple St intersection																		

