APPENDIX G

ROUTE 611/ROUTE 314 (WESTERN LEG) SIGNALIZATION INFO

SIGNALIZATION AND LEFT-TURN ELIMINATION

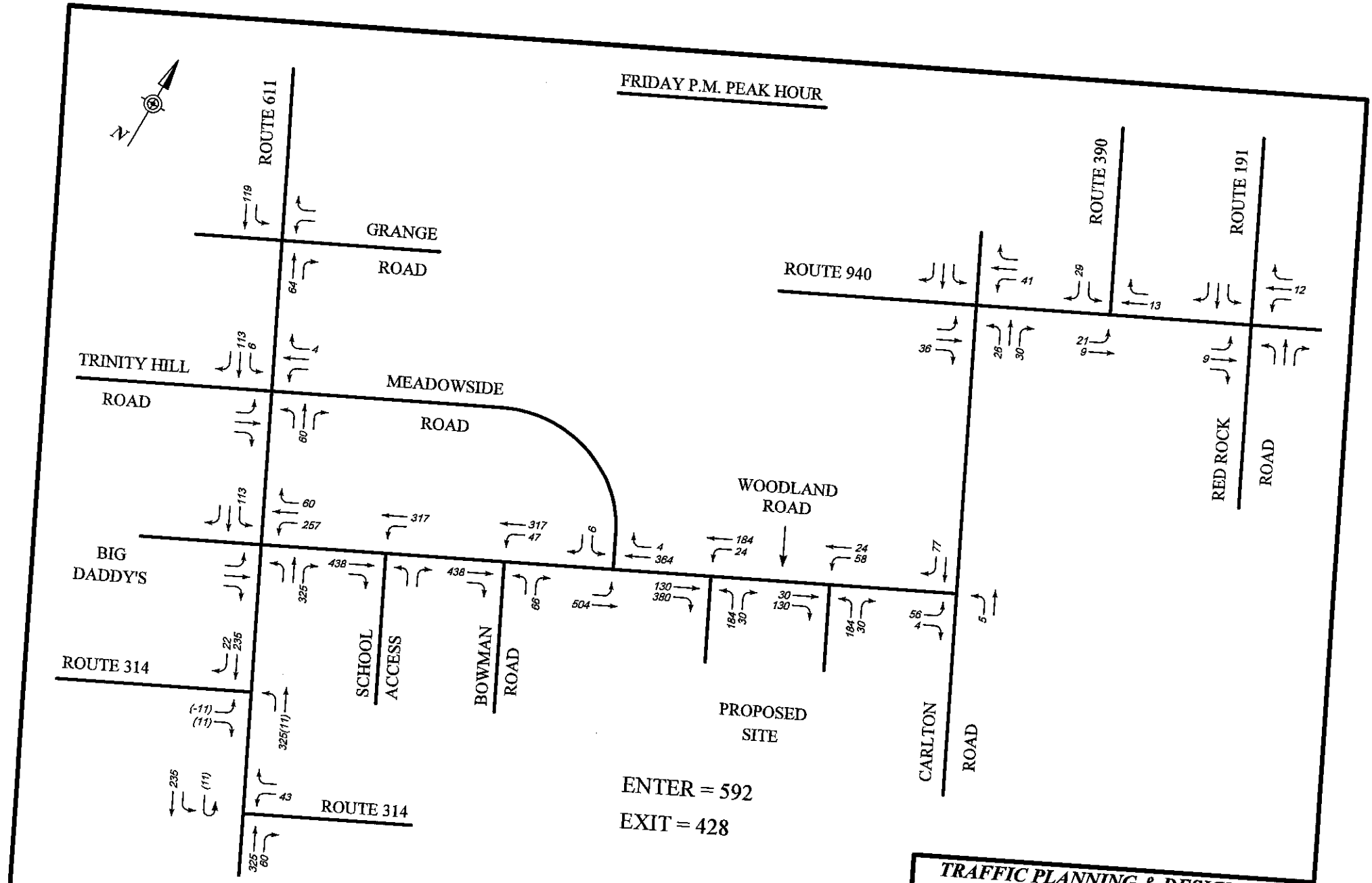

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FIGURE G-1

2007 TRIP DISTRIBUTION - 611/314 SIGNALIZATION
FRIDAY P.M. PEAK HOUR

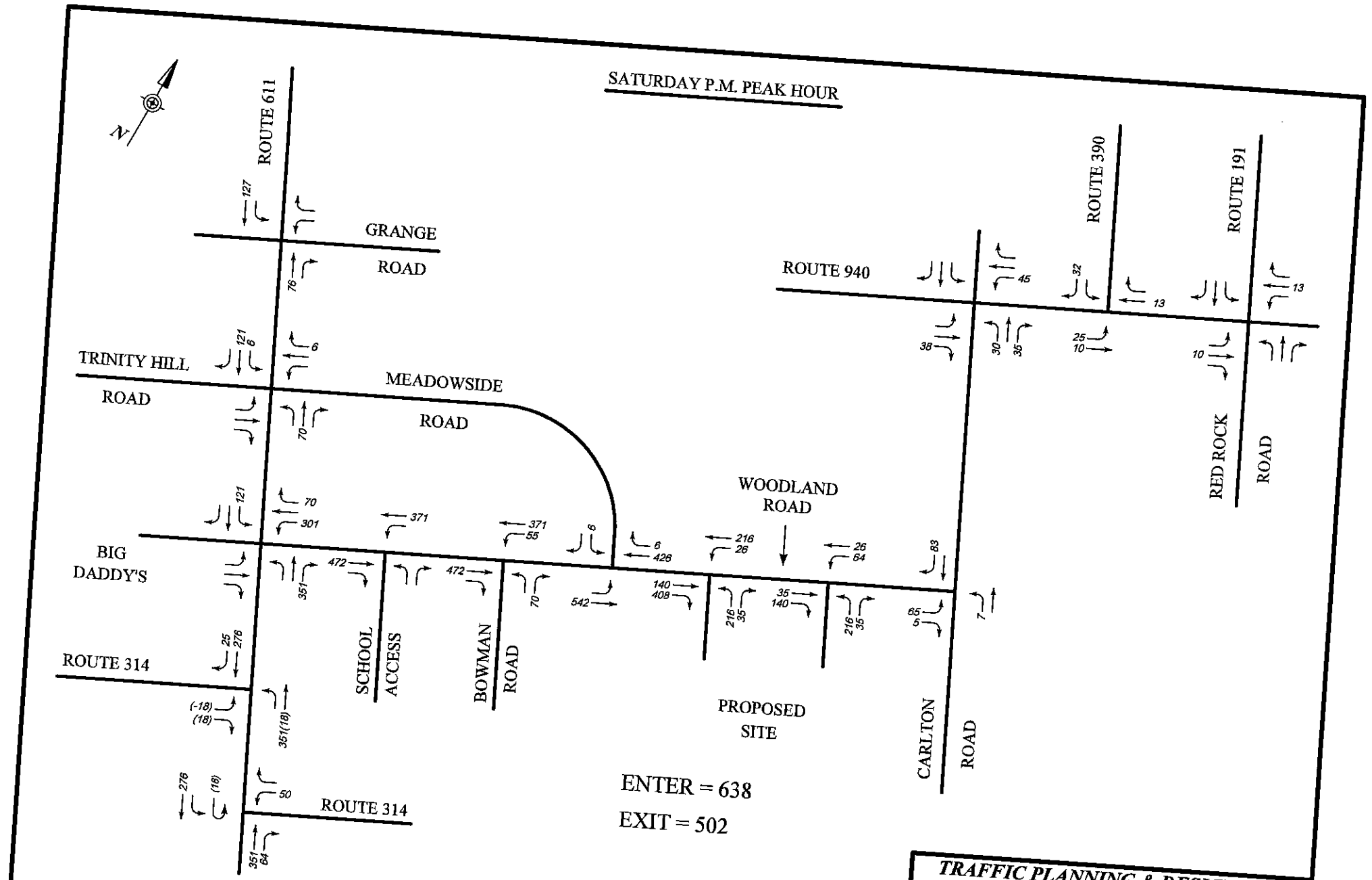

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FIGURE G-2

2007 TRIP DISTRIBUTION - 611/314 SIGNALIZATION
SATURDAY P.M. PEAK HOUR

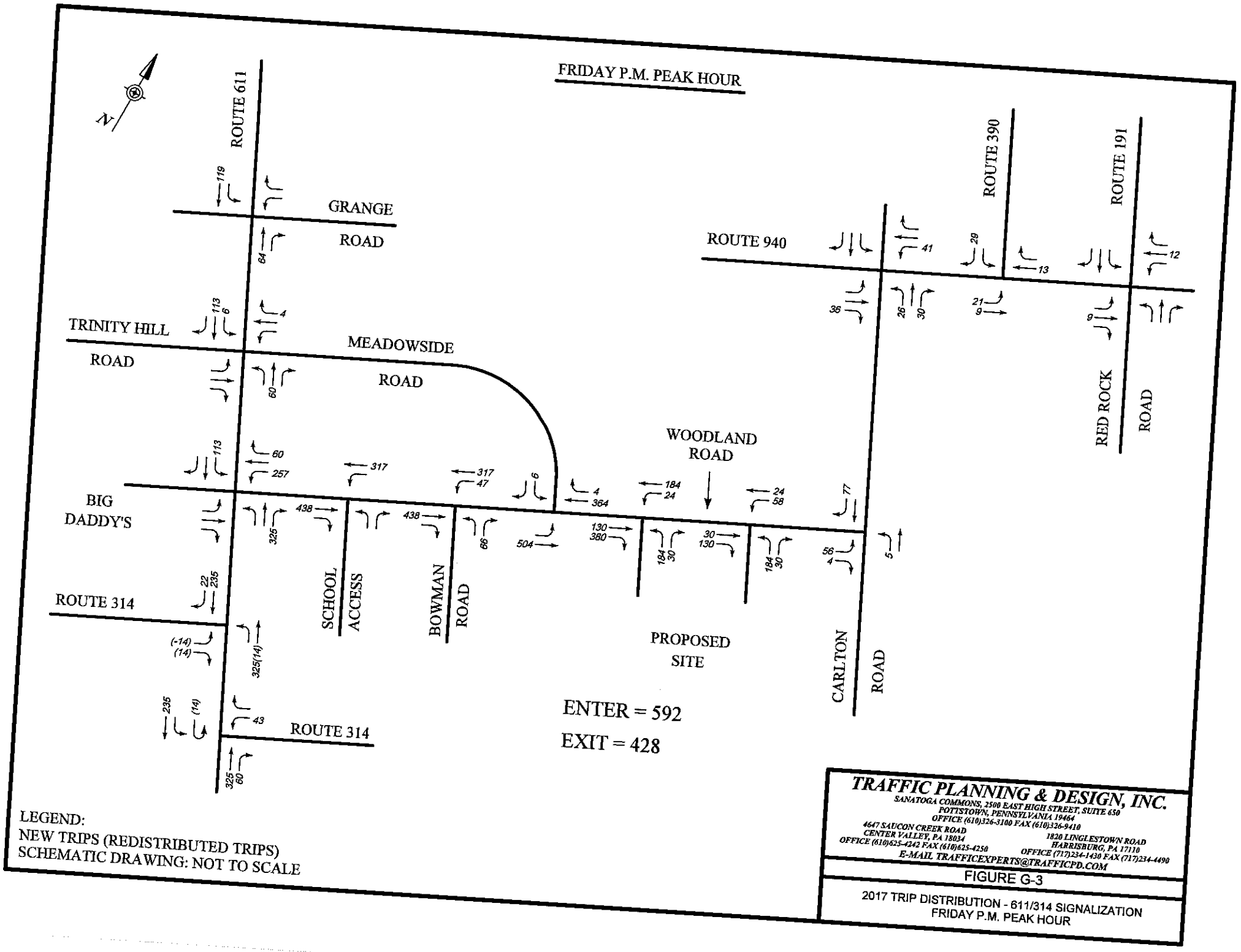

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FIGURE G-3

2017 TRIP DISTRIBUTION - 611/314 SIGNALIZATION
FRIDAY P.M. PEAK HOUR

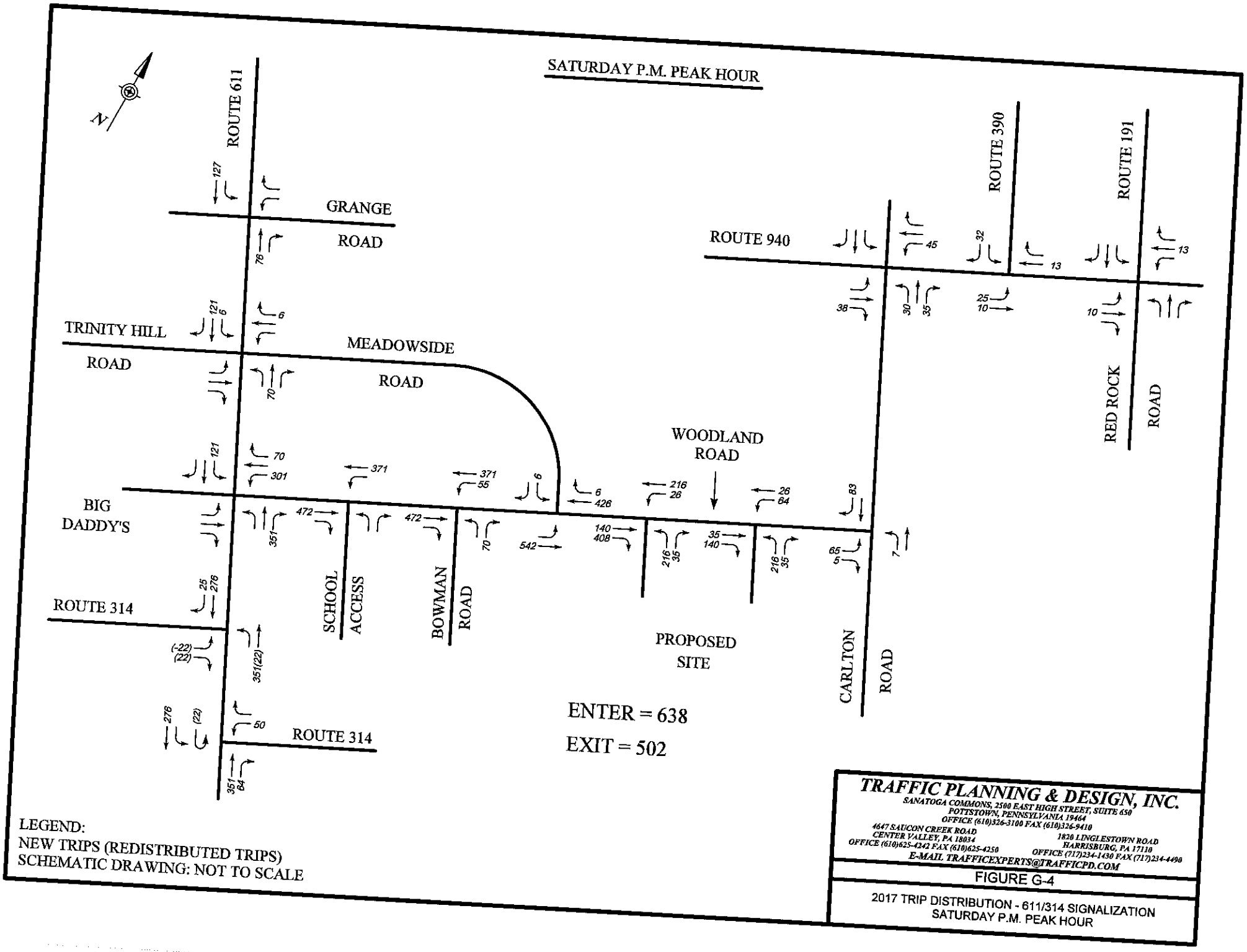

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FIGURE G-4

2017 TRIP DISTRIBUTION - 611/314 SIGNALIZATION
SATURDAY P.M. PEAK HOUR

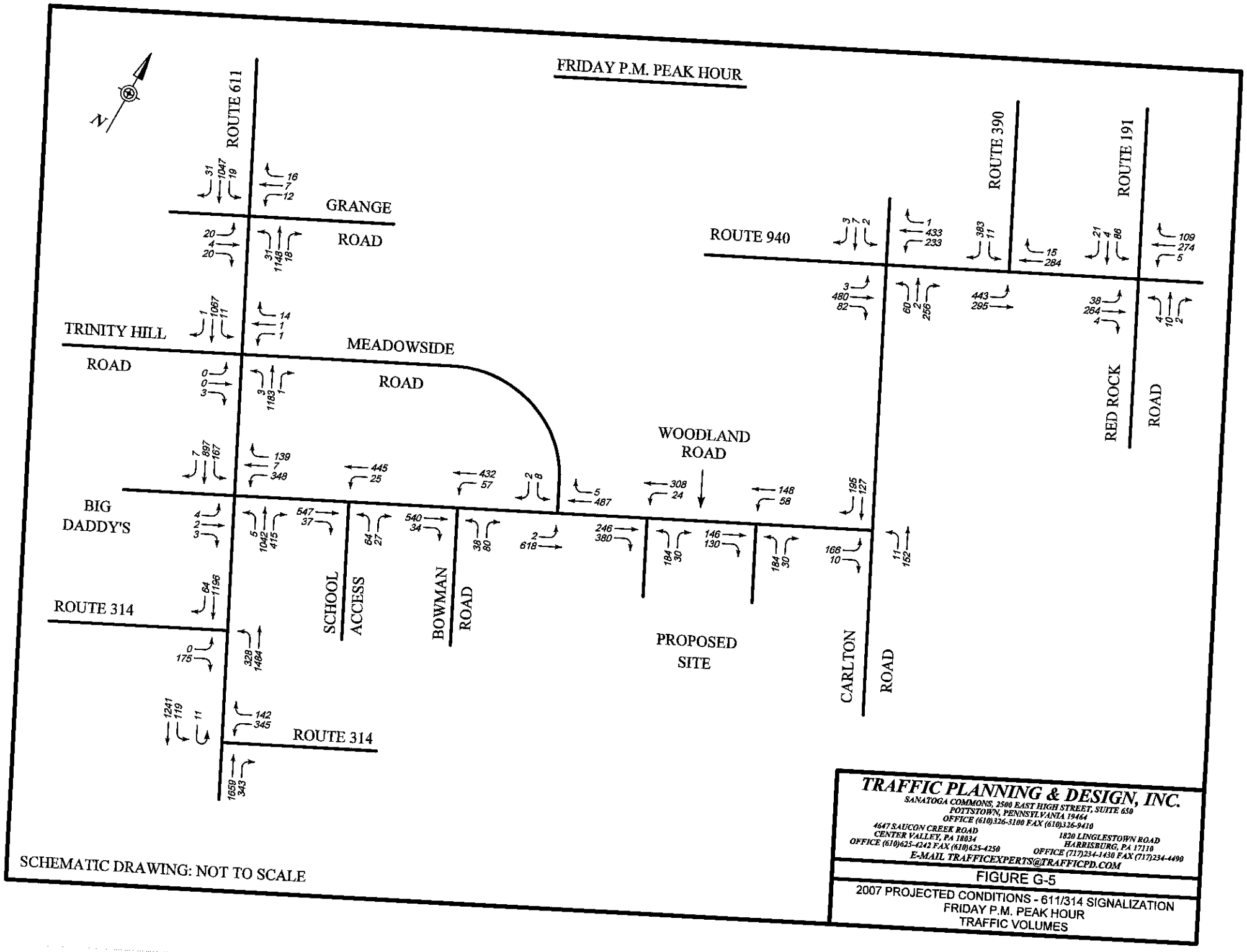

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FIGURE G-5

2007 PROJECTED CONDITIONS - 611/314 SIGNALIZATION
FRIDAY P.M. PEAK HOUR
TRAFFIC VOLUMES

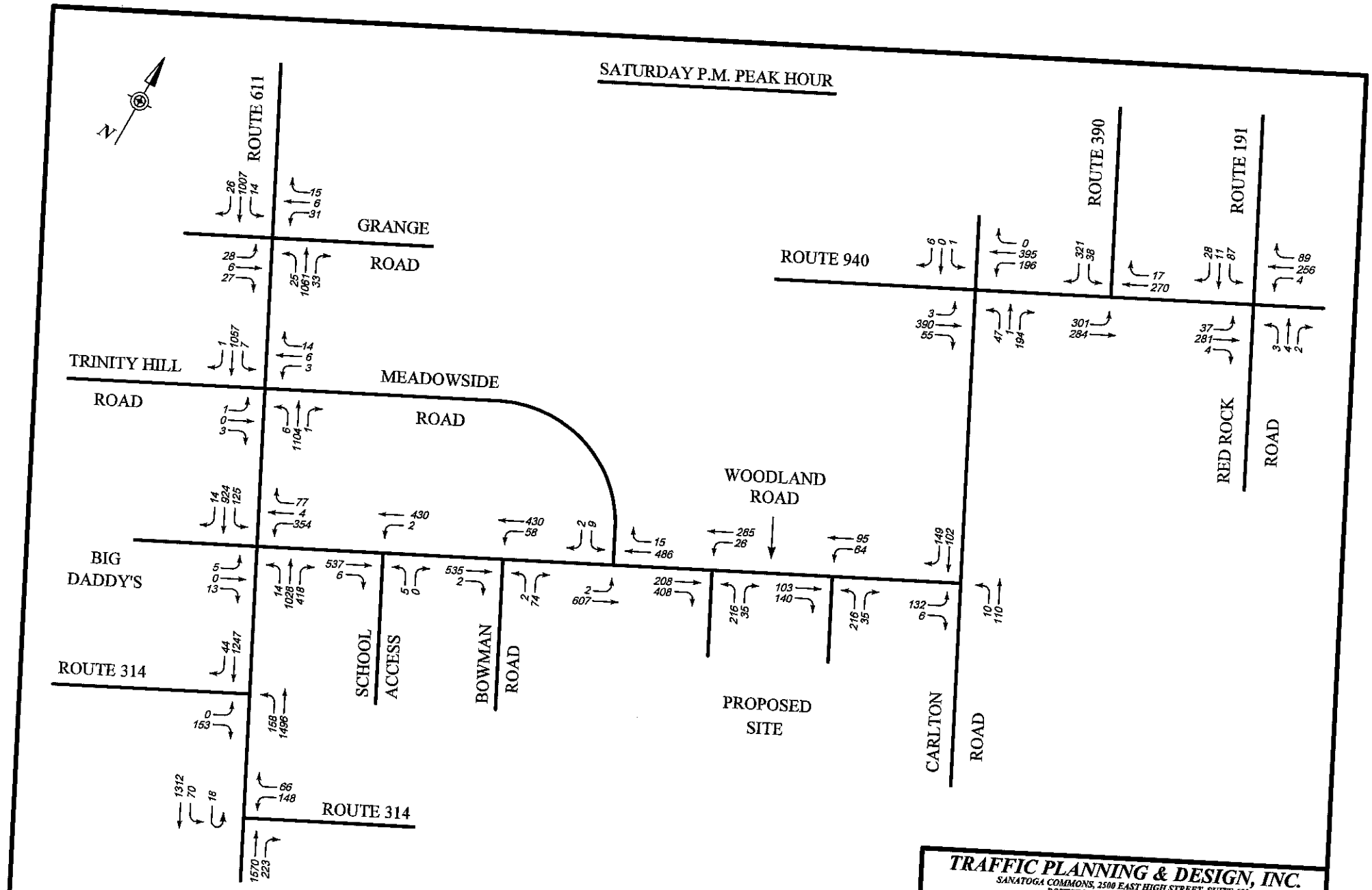

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FIGURE G-6

2007 PROJECTED CONDITIONS - 611/314 SIGNALIZATION
SATURDAY P.M. PEAK HOUR
TRAFFIC VOLUMES

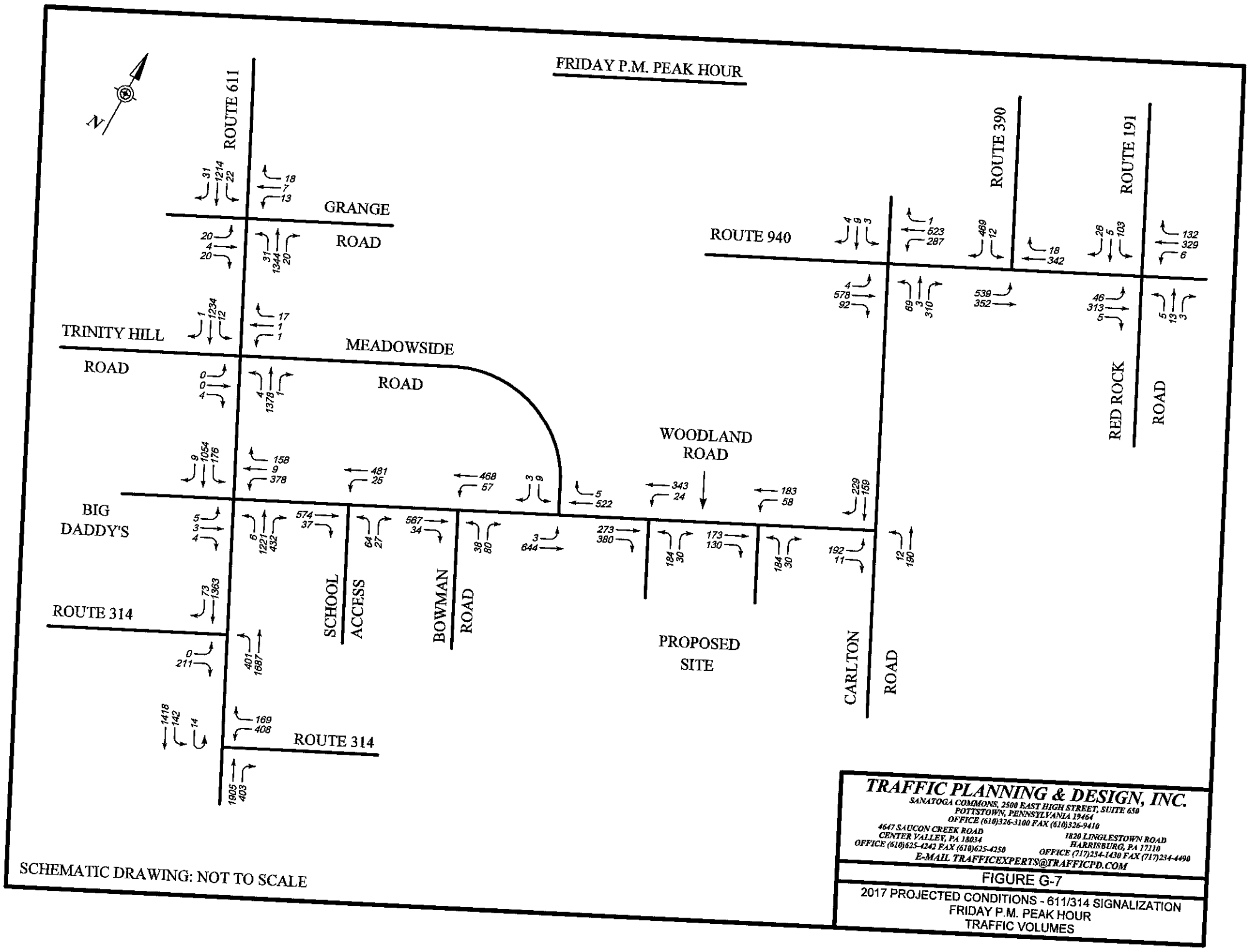

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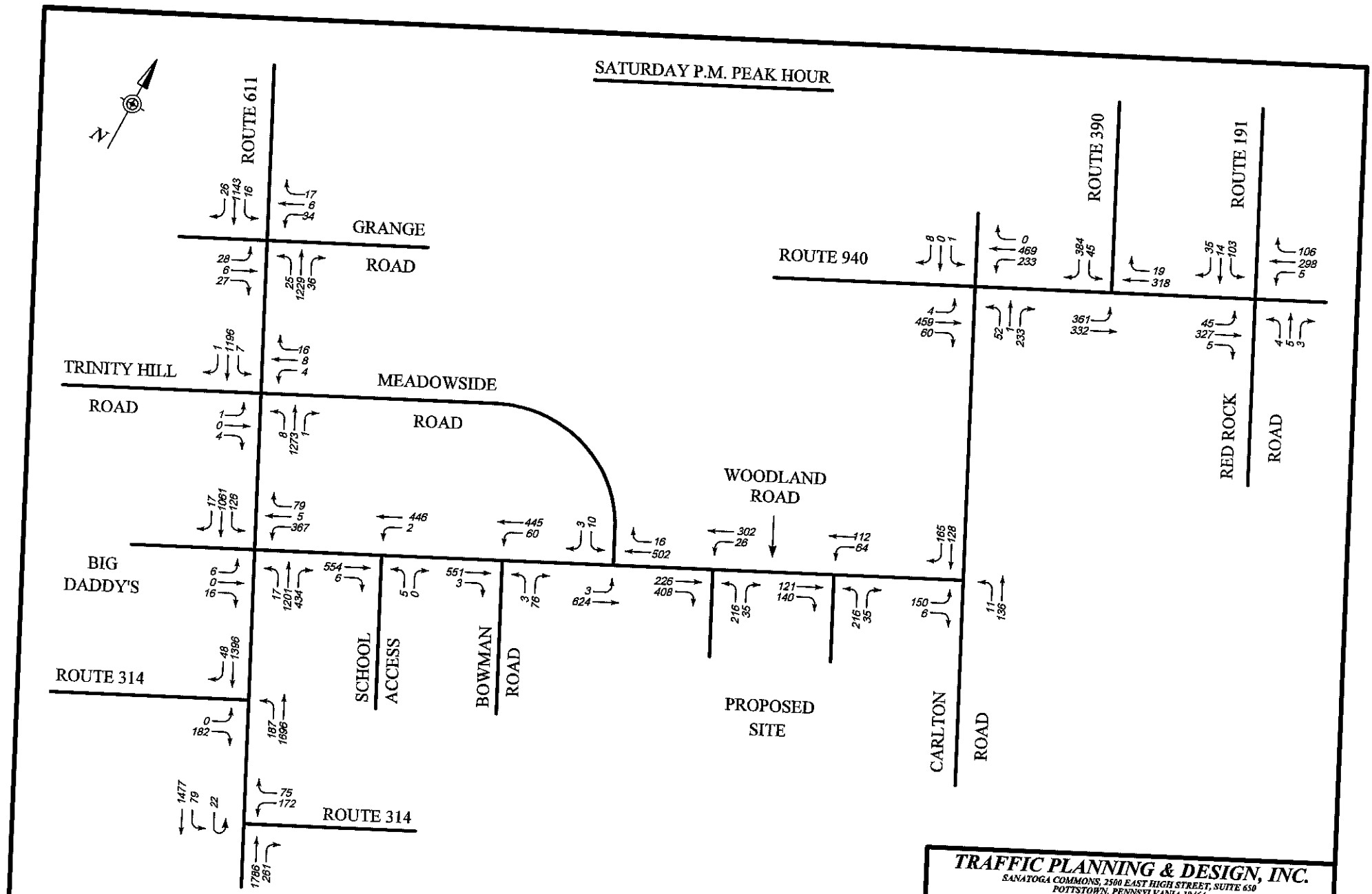
FIGURE G-7

2017 PROJECTED CONDITIONS - 611/314 SIGNALIZATION
FRIDAY P.M. PEAK HOUR
TRAFFIC VOLUMES



SCHEMATIC DRAWING: NOT TO SCALE

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FIGURE G-8

2017 PROJECTED CONDITIONS - 611/314 SIGNALIZATION
SATURDAY P.M. PEAK HOUR
TRAFFIC VOLUMES

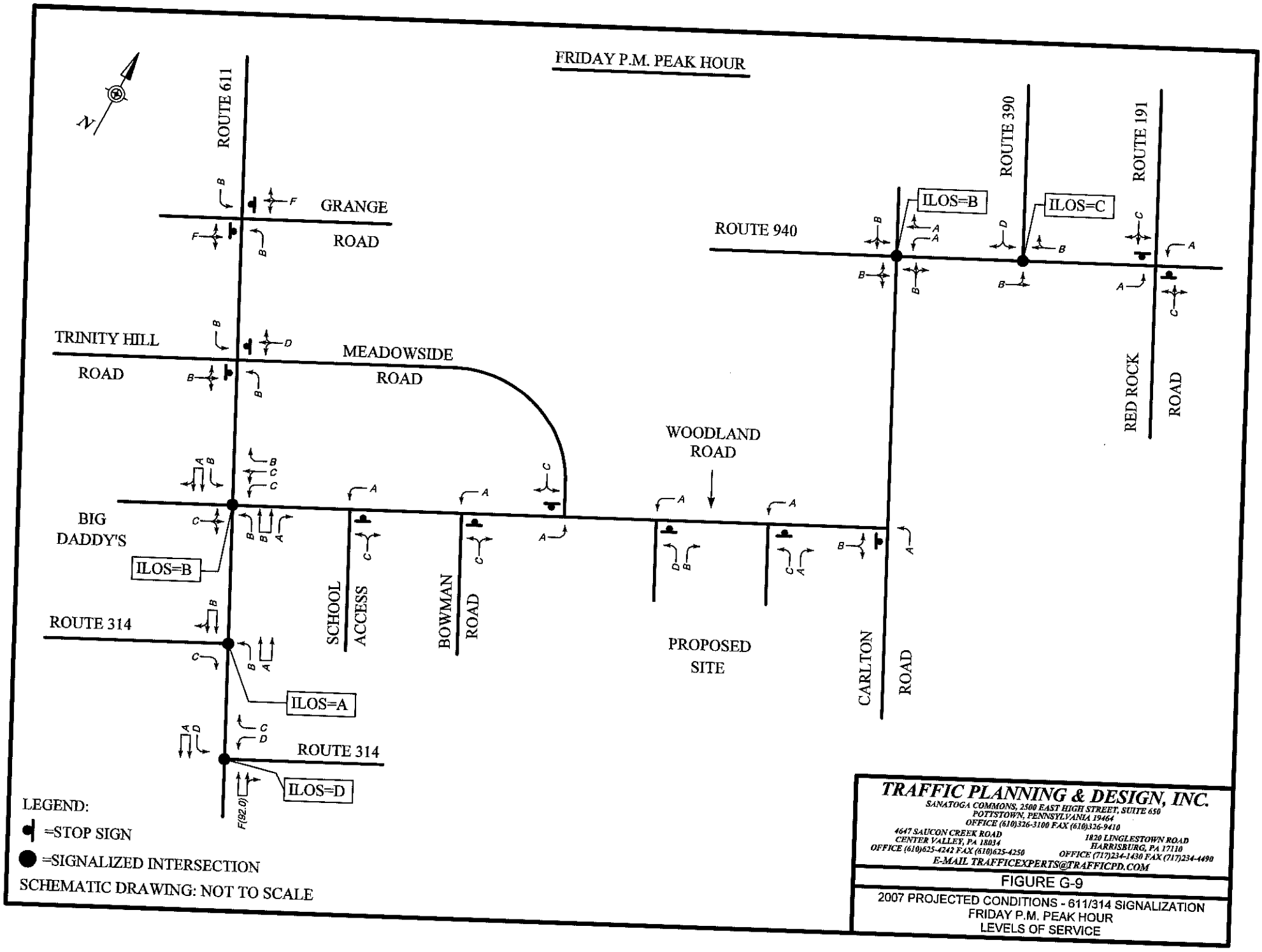

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FIGURE G-9

2007 PROJECTED CONDITIONS - 611/314 SIGNALIZATION
FRIDAY P.M. PEAK HOUR
LEVELS OF SERVICE

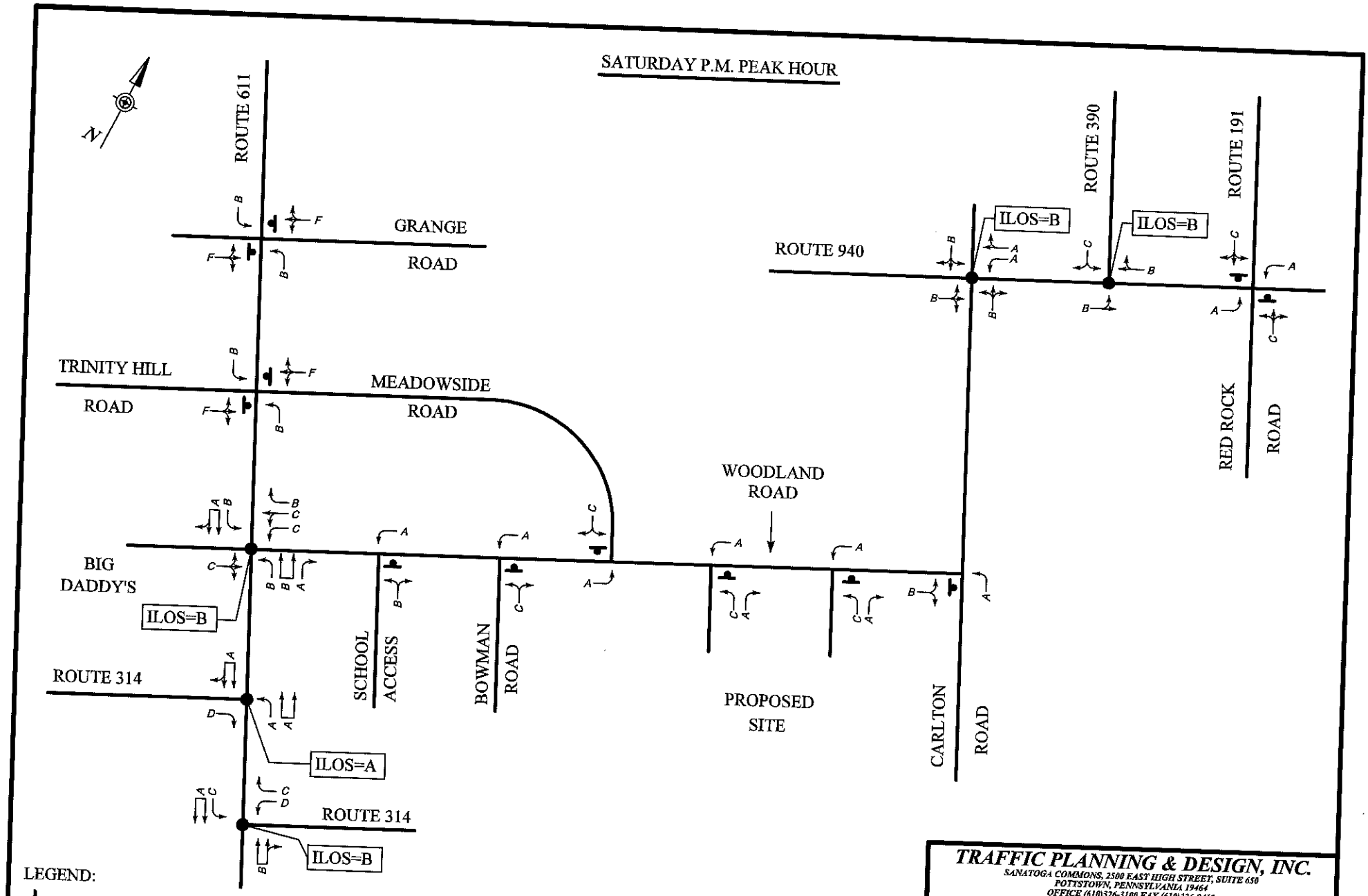

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FIGURE G-10

2007 PROJECTED CONDITIONS - 611/314 SIGNALIZATION
SATURDAY P.M. PEAK HOUR
LEVELS OF SERVICE

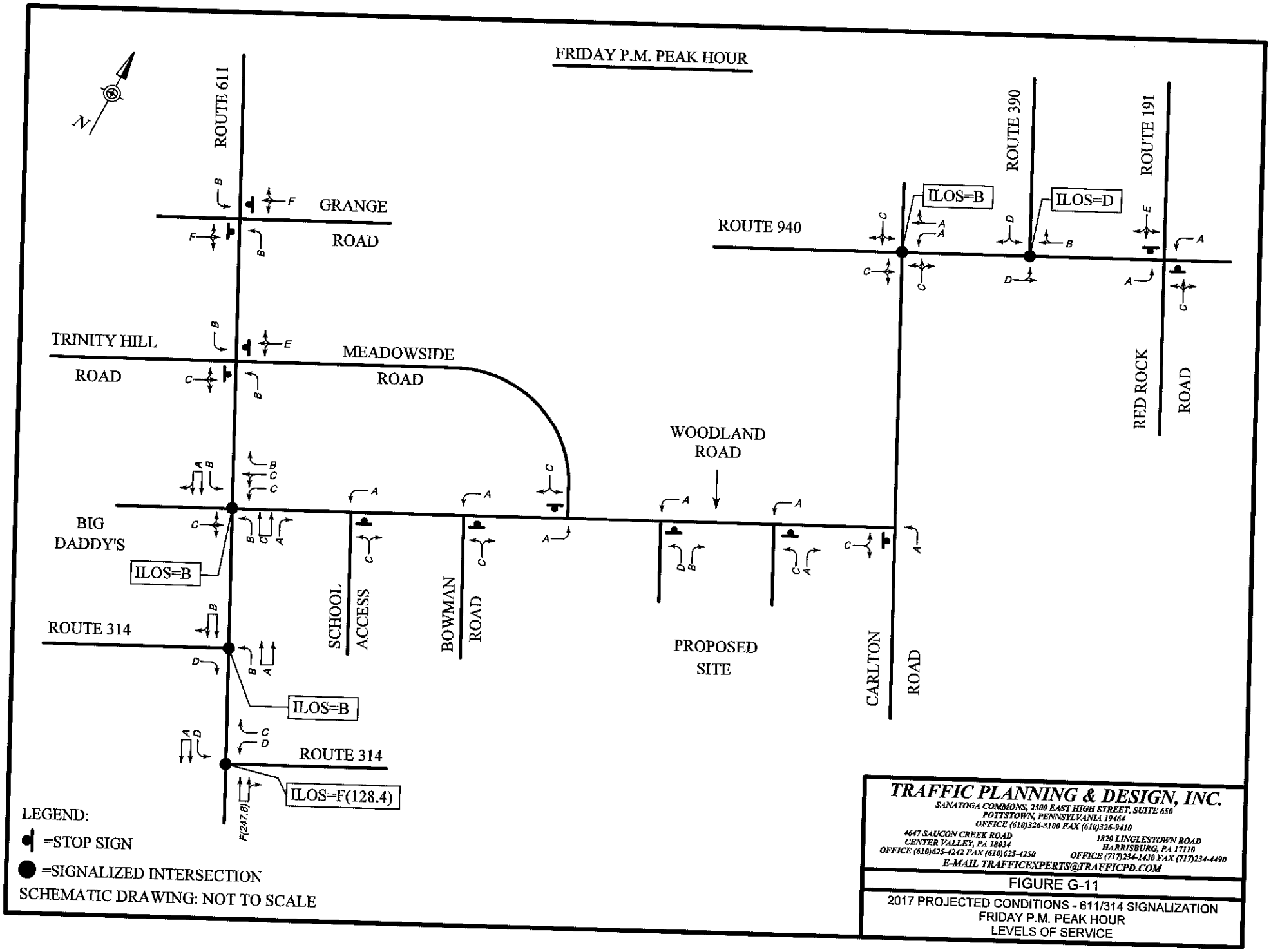

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FIGURE G-11

2017 PROJECTED CONDITIONS - 611/314 SIGNALIZATION
FRIDAY P.M. PEAK HOUR
LEVELS OF SERVICE

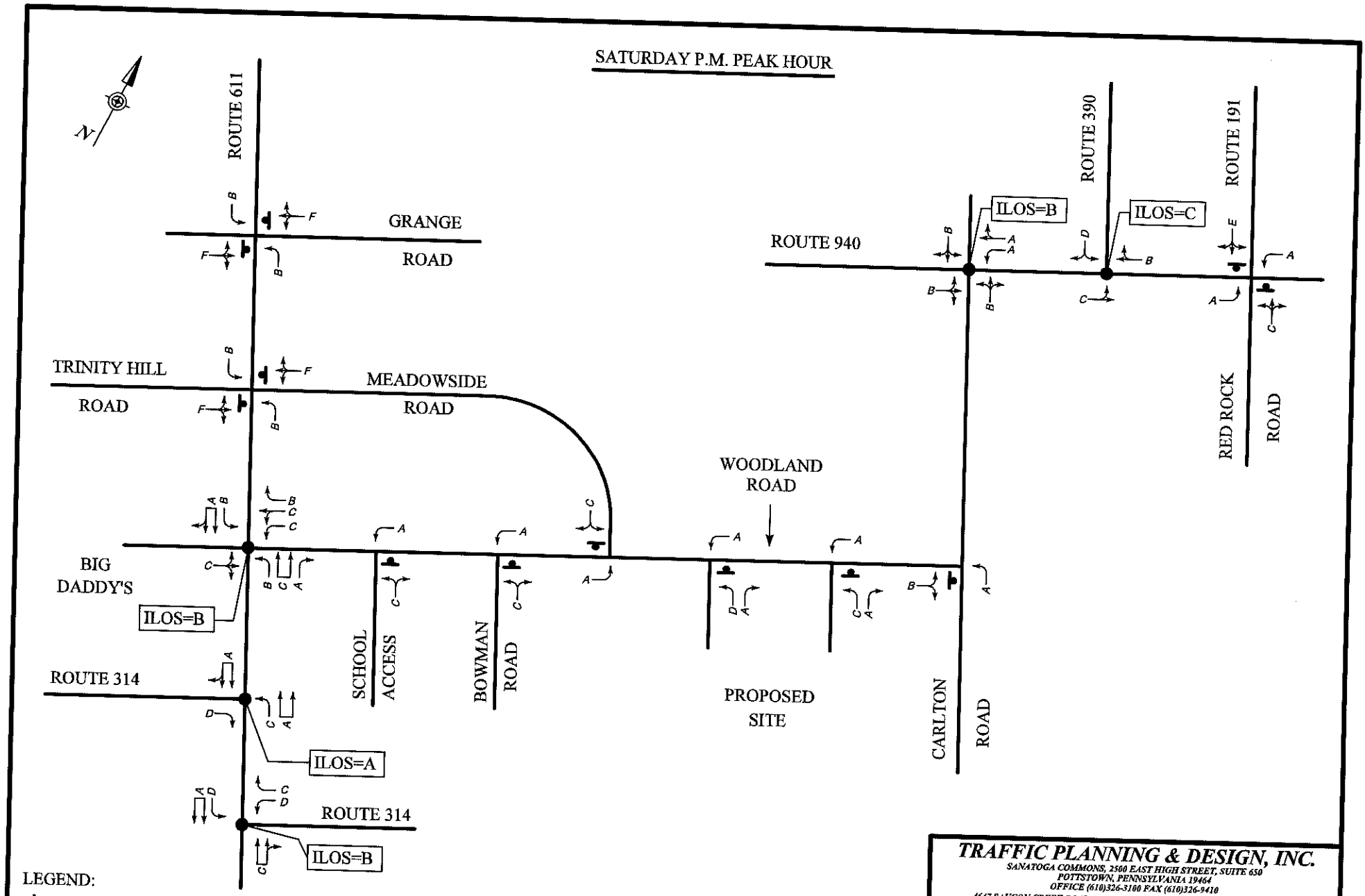

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FIGURE G-12

2017 PROJECTED CONDITIONS - 611/314 SIGNALIZATION
SATURDAY P.M. PEAK HOUR
LEVELS OF SERVICE

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	12	11	11	11	12
Grade (%)	-6%		-2%			-5%
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1883	1631	3334		1753	3628
Flt Permitted	0.95	1.00	1.00		0.07	1.00
Satd. Flow (perm)	1883	1631	3334		134	3628
Volume (vph)	345	142	1659	343	130	1241
Peak-hour factor, PHF	0.83	0.83	0.98	0.98	0.83	0.83
Adj. Flow (vph)	416	171	1693	350	157	1495
RTOR Reduction (vph)	0	61	0	0	0	0
Lane Group Flow (vph)	416	110	2043	0	157	1495
Heavy Vehicles (%)	2%	2%	3%	3%	2%	2%
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Actuated Green, G (s)	20.7	20.7	47.1		59.3	59.3
Effective Green, g (s)	23.7	23.7	51.1		63.3	63.3
Actuated g/C Ratio	0.25	0.25	0.54		0.67	0.67
Clearance Time (s)	7.0	7.0	8.0		6.0	8.0
Vehicle Extension (s)	3.0	3.0	6.0		3.0	6.0
Lane Grp Cap (vph)	470	407	1793		229	2417
v/s Ratio Prot	c0.22		c0.61		0.06	c0.41
v/s Ratio Perm		0.07			0.40	
v/c Ratio	0.89	0.27	1.14		0.69	0.62
Uniform Delay, d1	34.3	28.7	22.0		24.8	9.0
Progression Factor	1.00	1.00	1.00		1.74	0.48
Incremental Delay, d2	17.7	0.4	70.1		5.7	0.8
Delay (s)	52.1	29.1	92.0		48.8	5.1
Level of Service	D	C	F		D	A
Approach Delay (s)	45.4		92.0			9.3
Approach LOS	D		F			A

Intersection Summary			
HCM Average Control Delay	53.7	HCM Level of Service	D
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.1%	ICU Level of Service	F
Analysis Period (min)	15		

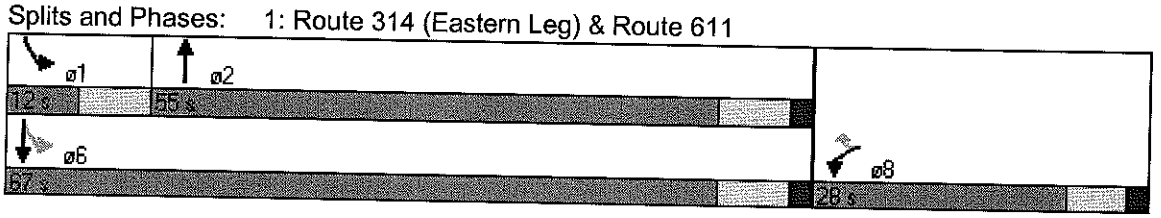
c Critical Lane Group

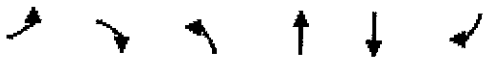
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	345	142	1659	130	1241
Lane Group Flow (vph)	416	171	2043	157	1495
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phases	8	8	2	1	6
Minimum Initial (s)	1.0	1.0	15.0	1.0	15.0
Minimum Split (s)	8.0	8.0	23.0	7.0	23.0
Total Split (s)	28.0	28.0	55.0	12.0	67.0
Total Split (%)	29.5%	29.5%	57.9%	12.6%	70.5%
Yellow Time (s)	5.0	5.0	6.0	6.0	6.0
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min
v/c Ratio	0.89	0.37	1.14	0.68	0.62
Control Delay	56.5	18.0	94.1	37.4	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	56.5	18.0	94.1	37.4	5.3
Queue Length 50th (ft)	241	43	~764	43	73
Queue Length 95th (ft)	#353	87	#902	m95	86
Internal Link Dist (ft)	1091		2024		1033
Turn Bay Length (ft)		72		175	
Base Capacity (vph)	476	473	1791	230	2417
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.87	0.36	1.14	0.68	0.62

Intersection Summary

Cycle Length: 95
Actuated Cycle Length: 95
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Route 314 (Eastern Leg) & Route 611





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	12	12
Grade (%)	4%			7%	-6%	
Total Lost time (s)		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	
Frt		0.86	1.00	1.00	0.99	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1445	1708	3415	3583	
Flt Permitted		1.00	0.95	1.00	1.00	
Satd. Flow (perm)		1445	1708	3415	3583	
Volume (vph)	0	175	328	1484	1196	64
Peak-hour factor, PHF	0.67	0.67	0.95	0.95	0.76	0.76
Adj. Flow (vph)	0	261	345	1562	1574	84
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	261	345	1562	1658	0
Heavy Vehicles (%)	4%	4%	2%	2%	3%	3%
Turn Type		Over	Prot			
Protected Phases		5	5	2	6	
Permitted Phases						
Actuated Green, G (s)		24.4	24.4	95.0	58.6	
Effective Green, g (s)		26.4	26.4	95.0	60.6	
Actuated g/C Ratio		0.28	0.28	1.00	0.64	
Clearance Time (s)		6.0	6.0	6.0	6.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		402	475	3415	2286	
v/s Ratio Prot		0.18	c0.20	0.46	c0.46	
v/s Ratio Perm						
v/c Ratio		0.65	0.73	0.46	0.73	
Uniform Delay, d1		30.2	31.0	0.0	11.6	
Progression Factor		1.00	0.57	1.00	1.00	
Incremental Delay, d2		3.6	0.5	0.0	2.0	
Delay (s)		33.8	18.2	0.0	13.6	
Level of Service		C	B	A	B	
Approach Delay (s)	33.8			3.3	13.6	
Approach LOS	C			A	B	

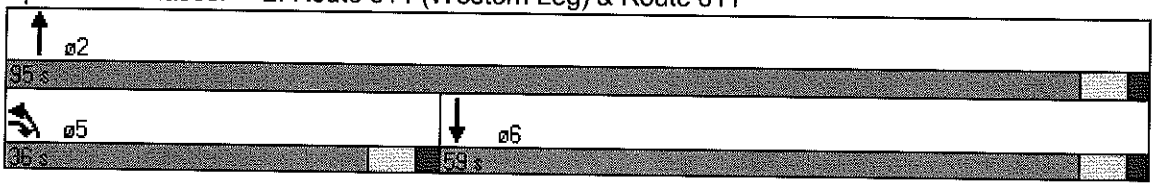
Intersection Summary			
HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBR	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	175	328	1484	1196
Lane Group Flow (vph)	261	345	1562	1658
Turn Type	Over	Prot		
Protected Phases	5	5	2	6
Permitted Phases				
Detector Phases	5	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	10.0	22.0	22.0
Total Split (s)	36.0	36.0	95.0	59.0
Total Split (%)	37.9%	37.9%	100.0%	62.1%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Recall Mode	None	None	C-Min	C-Min
v/c Ratio	0.65	0.73	0.46	0.73
Control Delay	37.5	18.3	0.0	14.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.5	18.3	0.0	14.9
Queue Length 50th (ft)	135	135	0	337
Queue Length 95th (ft)	141	m127	m0	349
Internal Link Dist (ft)			1033	2203
Turn Bay Length (ft)		143		
Base Capacity (vph)	487	575	3415	2283
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.54	0.60	0.46	0.73

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 95
Offset: 77 (81%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Route 314 (Western Leg) & Route 611



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	12	12	14	11	12	14	11	12	12
Grade (%)		6%			5%			3%			-7%	
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00		0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frt		0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1863		1639	1646	1647	1685	3486	1664	1770	3659	
Flt Permitted		0.98		0.95	0.95	1.00	0.26	1.00	1.00	0.14	1.00	
Satd. Flow (perm)		1863		1639	1646	1647	459	3486	1664	256	3659	
Volume (vph)	4	2	3	360	7	142	5	1042	415	167	897	7
Peak-hour factor, PHF	0.56	0.56	0.56	0.89	0.89	0.89	0.99	0.99	0.99	0.82	0.82	0.82
Adj. Flow (vph)	7	4	5	404	8	160	5	1053	419	204	1094	9
RTOR Reduction (vph)	0	5	0	0	0	111	0	0	177	0	1	0
Lane Group Flow (vph)	0	11	0	202	210	49	5	1053	242	204	1102	0
Turn Type	Split			Split		pm+ov	Perm		pm+ov	pm+pt		
Protected Phases	4	4		8	8	1		2	8	1	6	
Permitted Phases						8	2		2	6		
Actuated Green, G (s)		0.7		9.5	9.5	16.0	21.6	21.6	31.1	33.6	33.6	
Effective Green, g (s)		2.7		11.5	11.5	19.5	25.1	25.1	36.6	37.1	37.1	
Actuated g/C Ratio		0.04		0.18	0.18	0.31	0.40	0.40	0.58	0.59	0.59	
Clearance Time (s)		6.0		6.0	6.0	5.5	7.5	7.5	6.0	5.5	7.5	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	5.0	5.0	3.0	3.0	5.0	
Lane Grp Cap (vph)		79		298	299	611	182	1382	962	341	2145	
v/s Ratio Prot		c0.01		0.12	c0.13	0.01		c0.30	0.05	c0.08	0.30	
v/s Ratio Perm						0.02	0.01		0.10	0.27		
v/c Ratio		0.14		0.68	0.70	0.08	0.03	0.76	0.25	0.60	0.51	
Uniform Delay, d1		29.2		24.2	24.3	15.5	11.7	16.5	6.6	9.5	7.8	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.8		6.0	7.3	0.1	0.1	3.0	0.1	2.8	0.4	
Delay (s)		30.0		30.2	31.6	15.6	11.8	19.5	6.7	12.4	8.2	
Level of Service		C		C	C	B	B	B	A	B	A	
Approach Delay (s)		30.0			26.6			15.9			8.8	
Approach LOS		C			C			B			A	

Intersection Summary				
HCM Average Control Delay	15.0	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.69			
Actuated Cycle Length (s)	63.3	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	64.9%	ICU Level of Service	C	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Volume (vph)	2	360	7	142	5	1042	415	167	897
Lane Group Flow (vph)	16	202	210	160	5	1053	419	204	1103
Turn Type		Split		pm+ov	Perm		pm+ov	pm+pt	
Protected Phases	4	8	8	1		2	8	1	6
Permitted Phases				8	2		2	6	
Detector Phases	4	8	8	1	2	2	8	1	6
Minimum Initial (s)	4.0	7.0	7.0	4.0	10.0	10.0	7.0	4.0	10.0
Minimum Split (s)	10.0	13.0	13.0	9.5	17.5	17.5	13.0	9.5	17.5
Total Split (s)	10.0	16.0	16.0	12.0	32.0	32.0	16.0	12.0	44.0
Total Split (%)	14.3%	22.9%	22.9%	17.1%	45.7%	45.7%	22.9%	17.1%	62.9%
Yellow Time (s)	4.0	4.0	4.0	5.5	5.5	5.5	4.0	5.5	5.5
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0	2.0	2.0	0.0	2.0
Lead/Lag				Lead	Lag	Lag		Lead	
Lead-Lag Optimize?				Yes	Yes	Yes		Yes	
Recall Mode	None	None	None	None	Min	Min	None	None	Min
v/c Ratio	0.09	0.62	0.65	0.21	0.03	0.71	0.33	0.57	0.47
Control Delay	26.0	34.1	35.1	3.8	11.6	17.3	1.1	15.4	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	34.1	35.1	3.8	11.6	17.3	1.1	15.4	6.9
Queue Length 50th (ft)	4	66	69	0	1	143	0	22	80
Queue Length 95th (ft)	12	#182	#191	34	8	270	14	81	161
Internal Link Dist (ft)	105		2012			2203			2327
Turn Bay Length (ft)		250		250	73		350	183	
Base Capacity (vph)	174	337	339	738	210	1597	1274	361	2392
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.60	0.62	0.22	0.02	0.66	0.33	0.57	0.46

Intersection Summary

Cycle Length: 70

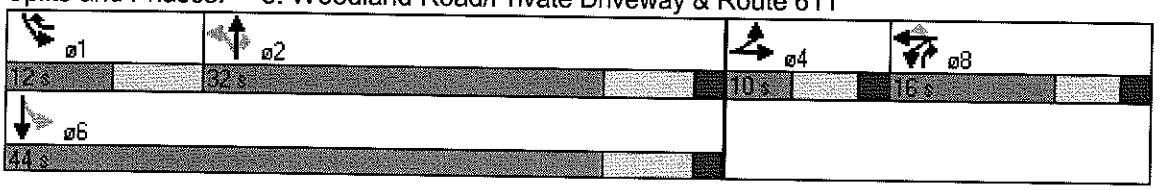
Actuated Cycle Length: 58.5

Natural Cycle: 60

Control Type: Semi Act-Uncoord

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Woodland Road/Private Driveway & Route 611



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		2%			8%			1%			-1%	
Volume (veh/h)	0	0	3	1	1	14	3	1183	1	11	1067	1
Peak Hour Factor	0.75	0.75	0.75	0.50	0.50	0.50	0.97	0.97	0.97	0.83	0.83	0.83
Hourly flow rate (vph)	0	0	4	2	2	28	3	1220	1	13	1286	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1958	2539	643	1900	2540	610	1287			1221		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1958	2539	643	1900	2540	610	1287			1221		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	6.9	4.1			4.2		
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	99	95	92	94	99			98		
cM capacity (veh/h)	33	26	416	40	26	437	535			551		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	4	32	3	813	408	13	857	430
Volume Left	0	2	3	0	0	13	0	0
Volume Right	4	28	0	0	1	0	0	1
cSH	416	167	535	1700	1700	551	1700	1700
Volume to Capacity	0.01	0.19	0.01	0.48	0.24	0.02	0.50	0.25
Queue Length 95th (ft)	1	17	0	0	0	2	0	0
Control Delay (s)	13.7	31.6	11.8	0.0	0.0	11.7	0.0	0.0
Lane LOS	B	D	B			B		
Approach Delay (s)	13.7	31.6	0.0			0.1		
Approach LOS	B	D						

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	11	12	12	11	12	12
Grade (%)		2%			8%			1%			-1%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.865			0.882							
Flt Protected					0.997		0.950			0.950		
Satd. Flow (prot)	0	1648	0	0	1572	0	1702	3522	0	1670	3455	0
Flt Permitted					0.997		0.950			0.950		
Satd. Flow (perm)	0	1648	0	0	1572	0	1702	3522	0	1670	3455	0
Headway Factor	0.97	0.97	0.97	1.05	1.05	1.05	1.05	1.01	1.01	1.04	0.99	0.99
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		158			1027			2407			3261	
Travel Time (s)		3.1			20.0			36.5			49.4	
Volume (vph)	0	0	3	1	1	14	3	1183	1	11	1067	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.75	0.75	0.75	0.50	0.50	0.50	0.97	0.97	0.97	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	5%	5%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	4	2	2	28	3	1220	1	13	1286	1
Lane Group Flow (vph)	0	4	0	0	32	0	3	1221	0	13	1287	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 42.7%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			9%			2%			-5%	
Volume (veh/h)	20	4	20	12	7	16	31	1148	18	19	1047	31
Peak Hour Factor	0.90	0.90	0.90	0.75	0.90	0.75	0.90	0.97	0.97	0.77	0.77	0.90
Hourly flow rate (vph)	22	4	22	16	8	21	34	1184	19	25	1360	34
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2112	2697	697	2015	2705	601	1394			1202		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2112	2697	697	2015	2705	601	1394			1202		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	6.9	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 %	0	76	94	34	58	95	93			96		
cM capacity (veh/h)	17	19	383	24	18	443	486			576		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	49	45	34	789	413	25	906	488
Volume Left	22	16	34	0	0	25	0	0
Volume Right	22	21	0	0	19	0	0	34
cSH	31	40	486	1700	1700	576	1700	1700
Volume to Capacity	1.60	1.14	0.07	0.46	0.24	0.04	0.53	0.29
Queue Length 95th (ft)	140	112	6	0	0	3	0	0
Control Delay (s)	579.6	344.2	13.0	0.0	0.0	11.5	0.0	0.0
Lane LOS	F	F	B			B		
Approach Delay (s)	579.6	344.2	0.4			0.2		
Approach LOS	F	F						

Intersection Summary			
Average Delay	16.2		
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	10	10	11	12	12	11	12	12
Grade (%)		0%			9%			2%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.938			0.937			0.998			0.996	
Flt Protected		0.978			0.983		0.950			0.950		
Satd. Flow (prot)	0	1709	0	0	1529	0	1694	3497	0	1753	3613	0
Flt Permitted		0.978			0.983		0.950			0.950		
Satd. Flow (perm)	0	1709	0	0	1529	0	1694	3497	0	1753	3613	0
Headway Factor	1.00	1.00	1.00	1.16	1.16	1.16	1.06	1.01	1.01	1.01	0.97	0.97
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		294			1492			3261			2754	
Travel Time (s)		6.7			33.9			49.4			41.7	
Volume (vph)	20	4	20	12	7	16	31	1148	18	19	1047	31
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.75	0.90	0.75	0.90	0.97	0.97	0.77	0.77	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	22	4	22	16	8	21	34	1184	19	25	1360	34
Lane Group Flow (vph)	0	48	0	0	45	0	34	1203	0	25	1394	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 42.7%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	12	11	11	11	12
Grade (%)	-6%		-2%			-5%
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1883	1631	3391		1753	3628
Flt Permitted	0.95	1.00	1.00		0.06	1.00
Satd. Flow (perm)	1883	1631	3391		116	3628
Volume (vph)	148	66	1570	223	88	1312
Peak-hour factor, PHF	0.90	0.90	0.94	0.94	0.94	0.94
Adj. Flow (vph)	164	73	1670	237	94	1396
RTOR Reduction (vph)	0	63	0	0	0	0
Lane Group Flow (vph)	164	10	1907	0	94	1396
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Actuated Green, G (s)	9.4	9.4	55.4		65.6	65.6
Effective Green, g (s)	12.4	12.4	59.4		69.6	69.6
Actuated g/C Ratio	0.14	0.14	0.66		0.77	0.77
Clearance Time (s)	7.0	7.0	8.0		6.0	8.0
Vehicle Extension (s)	3.0	3.0	6.0		3.0	6.0
Lane Grp Cap (vph)	259	225	2238		202	2806
v/s Ratio Prot	c0.09		c0.56		0.03	c0.38
v/s Ratio Perm		0.01			0.33	
v/c Ratio	0.63	0.04	0.85		0.47	0.50
Uniform Delay, d1	36.7	33.7	11.9		14.5	3.8
Progression Factor	1.00	1.00	1.00		1.42	1.34
Incremental Delay, d2	5.0	0.1	4.3		1.5	0.6
Delay (s)	41.6	33.7	16.2		22.1	5.6
Level of Service	D	C	B		C	A
Approach Delay (s)	39.2		16.2			6.7
Approach LOS	D		B			A

Intersection Summary			
HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	148	66	1570	88	1312
Lane Group Flow (vph)	164	73	1907	94	1396
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phases	8	8	2	1	6
Minimum Initial (s)	1.0	1.0	15.0	1.0	15.0
Minimum Split (s)	8.0	8.0	23.0	7.0	23.0
Total Split (s)	16.0	16.0	63.0	11.0	74.0
Total Split (%)	17.8%	17.8%	70.0%	12.2%	82.2%
Yellow Time (s)	5.0	5.0	6.0	6.0	6.0
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min
v/c Ratio	0.63	0.25	0.83	0.42	0.50
Control Delay	49.0	11.5	16.2	16.2	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	11.5	16.2	16.2	5.7
Queue Length 50th (ft)	90	0	398	15	216
Queue Length 95th (ft)	#169	38	520	m42	37
Internal Link Dist (ft)	1091		2024		1031
Turn Bay Length (ft)		72		175	
Base Capacity (vph)	261	289	2309	224	2827
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.25	0.83	0.42	0.49

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 11 (12%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

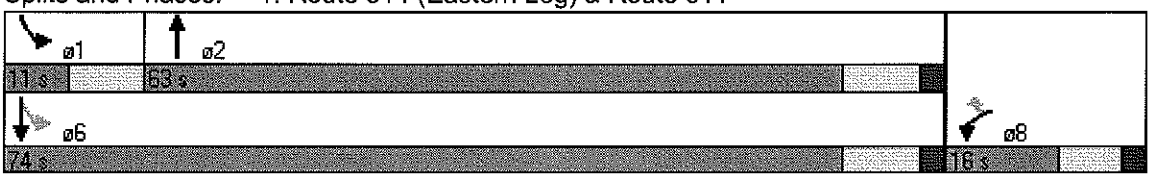
Natural Cycle: 60

Control Type: Actuated-Coordinated

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Route 314 (Eastern Leg) & Route 611



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	12	12
Grade (%)	4%			7%	-6%	
Total Lost time (s)		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	
Frt		0.86	1.00	1.00	0.99	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1445	1708	3415	3627	
Flt Permitted		1.00	0.16	1.00	1.00	
Satd. Flow (perm)		1445	289	3415	3627	
Volume (vph)	0	153	158	1496	1247	44
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.97	0.97
Adj. Flow (vph)	0	159	165	1558	1286	45
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	159	165	1558	1331	0
Heavy Vehicles (%)	4%	4%	2%	2%	2%	2%
Turn Type		Over	pm+pt			
Protected Phases		5	5	2	6	
Permitted Phases			2			
Actuated Green, G (s)		13.9	83.0	90.0	63.1	
Effective Green, g (s)		15.9	86.0	90.0	66.1	
Actuated g/C Ratio		0.18	0.96	1.00	0.73	
Clearance Time (s)		6.0	6.0	7.0	7.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		255	527	3415	2664	
v/s Ratio Prot		c0.11	0.06	0.46	c0.37	
v/s Ratio Perm			0.24			
v/c Ratio		0.62	0.31	0.46	0.50	
Uniform Delay, d1		34.3	2.4	0.0	5.0	
Progression Factor		1.00	1.35	1.00	1.00	
Incremental Delay, d2		4.7	0.2	0.2	0.7	
Delay (s)		39.0	3.5	0.2	5.7	
Level of Service		D	A	A	A	
Approach Delay (s)	39.0			0.6	5.7	
Approach LOS	D			A	A	

Intersection Summary			
HCM Average Control Delay	4.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

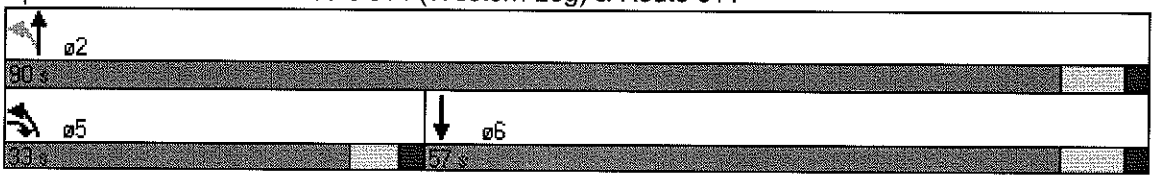
c Critical Lane Group

Lane Group	EBR	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	153	158	1496	1247
Lane Group Flow (vph)	159	165	1558	1331
Turn Type	Over	pm+pt		
Protected Phases	5	5	2	6
Permitted Phases		2		
Detector Phases	5	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	10.0	23.0	23.0
Total Split (s)	33.0	33.0	90.0	57.0
Total Split (%)	36.7%	36.7%	100.0%	63.3%
Yellow Time (s)	4.0	4.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Recall Mode	None	None	C-Min	C-Min
v/c Ratio	0.62	0.35	0.46	0.50
Control Delay	44.1	3.5	0.2	6.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	44.1	3.5	0.2	6.4
Queue Length 50th (ft)	85	3	0	135
Queue Length 95th (ft)	135	m8	0	244
Internal Link Dist (ft)			1031	2203
Turn Bay Length (ft)		143		
Base Capacity (vph)	466	688	3415	2662
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.34	0.24	0.46	0.50

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 84 (93%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Route 314 (Western Leg) & Route 611



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	12	12	14	11	12	14	11	12	12
Grade (%)		6%			5%			3%			-7%	
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00		0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frt		0.91		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.99		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1783		1639	1645	1647	1685	3486	1664	1770	3655	
Flt Permitted		0.99		0.95	0.95	1.00	0.30	1.00	1.00	0.14	1.00	
Satd. Flow (perm)		1783		1639	1645	1647	531	3486	1664	265	3655	
Volume (vph)	5	1	13	354	4	77	14	1028	418	125	924	14
Peak-hour factor, PHF	0.61	0.61	0.61	0.92	0.92	0.92	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	8	2	21	385	4	84	14	1049	427	128	943	14
RTOR Reduction (vph)	0	20	0	0	0	59	0	0	176	0	1	0
Lane Group Flow (vph)	0	11	0	193	196	25	14	1049	251	128	956	0
Turn Type	Split			Split		pm+ov	Perm		pm+ov	pm+pt		
Protected Phases	4	4		8	8	1		2	8	1	6	
Permitted Phases						8	2		2	6		
Actuated Green, G (s)		1.3		10.4	10.4	15.1	20.6	20.6	31.0	30.8	30.8	
Effective Green, g (s)		3.3		12.4	12.4	18.6	24.1	24.1	36.5	34.3	34.3	
Actuated g/C Ratio		0.05		0.20	0.20	0.30	0.39	0.39	0.59	0.55	0.55	
Clearance Time (s)		6.0		6.0	6.0	5.5	7.5	7.5	6.0	5.5	7.5	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	5.0	5.0	3.0	3.0	5.0	
Lane Grp Cap (vph)		95		328	329	600	206	1355	980	297	2022	
v/s Ratio Prot		c0.01		0.12	c0.12	0.00		c0.30	0.05	0.04	c0.26	
v/s Ratio Perm						0.01	0.03		0.10	0.20		
v/c Ratio		0.12		0.59	0.60	0.04	0.07	0.77	0.26	0.43	0.47	
Uniform Delay, d1		28.0		22.5	22.5	15.4	11.9	16.6	6.2	9.5	8.4	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.6		2.7	2.9	0.0	0.3	3.3	0.1	1.0	0.4	
Delay (s)		28.5		25.2	25.4	15.4	12.2	19.9	6.3	10.5	8.7	
Level of Service		C		C	C	B	B	B	A	B	A	
Approach Delay (s)		28.5			23.5			15.9			9.0	
Approach LOS		C			C			B			A	

Intersection Summary				
HCM Average Control Delay	14.8	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.65			
Actuated Cycle Length (s)	62.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	61.9%	ICU Level of Service	B	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Volume (vph)	1	354	4	77	14	1028	418	125	924
Lane Group Flow (vph)	31	193	196	84	14	1049	427	128	957
Turn Type		Split		pm+ov	Perm		pm+ov	pm+pt	
Protected Phases	4	8	8	1		2	8	1	6
Permitted Phases				8	2		2	6	
Detector Phases	4	8	8	1	2	2	8	1	6
Minimum Initial (s)	4.0	7.0	7.0	4.0	10.0	10.0	7.0	4.0	10.0
Minimum Split (s)	10.0	13.0	13.0	9.5	17.5	17.5	13.0	9.5	17.5
Total Split (s)	10.0	17.0	17.0	12.0	31.0	31.0	17.0	12.0	43.0
Total Split (%)	14.3%	24.3%	24.3%	17.1%	44.3%	44.3%	24.3%	17.1%	61.4%
Yellow Time (s)	4.0	4.0	4.0	5.5	5.5	5.5	4.0	5.5	5.5
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0	2.0	2.0	0.0	2.0
Lead/Lag				Lead	Lag	Lag		Lead	
Lead-Lag Optimize?				Yes	Yes	Yes		Yes	
Recall Mode	None	None	None	None	Min	Min	None	None	Min
v/c Ratio	0.16	0.54	0.55	0.12	0.06	0.71	0.32	0.38	0.46
Control Delay	19.2	31.0	31.2	4.7	14.1	18.7	1.1	9.7	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	31.0	31.2	4.7	14.1	18.7	1.1	9.7	8.2
Queue Length 50th (ft)	3	64	65	0	3	148	0	14	71
Queue Length 95th (ft)	16	#163	#166	26	15	276	14	47	161
Internal Link Dist (ft)	105		2012			2203			2327
Turn Bay Length (ft)		250		250	73		350	183	
Base Capacity (vph)	194	386	387	671	243	1598	1318	341	2281
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.50	0.51	0.13	0.06	0.66	0.32	0.38	0.42

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 57.7

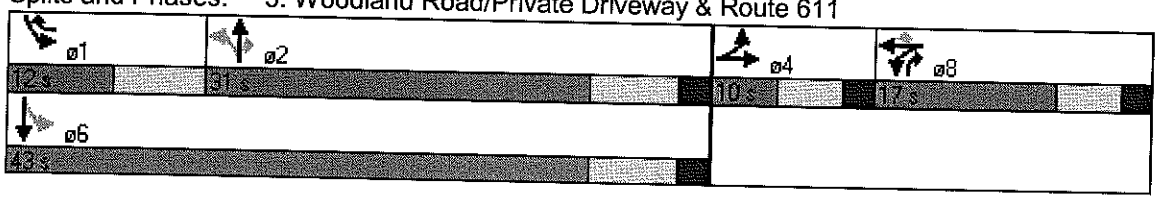
Natural Cycle: 60

Control Type: Semi Act-Uncoord

\# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Woodland Road/Private Driveway & Route 611



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		2%			8%			1%			-1%	
Volume (veh/h)	1	0	3	3	6	14	6	1104	1	7	1057	1
Peak Hour Factor	0.50	0.50	0.50	0.39	0.39	0.39	0.92	0.92	0.92	0.89	0.89	0.89
Hourly flow rate (vph)	2	0	6	8	15	36	7	1200	1	8	1188	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1861	2418	594	1829	2418	601	1189			1201		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1861	2418	594	1829	2418	601	1189			1201		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	6.9	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 %	92	100	99	83	50	92	99			99		
cM capacity (veh/h)	25	31	448	46	31	443	583			577		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	8	59	7	800	401	8	792	397
Volume Left	2	8	7	0	0	8	0	0
Volume Right	6	36	0	0	1	0	0	1
cSH	85	79	583	1700	1700	577	1700	1700
Volume to Capacity	0.09	0.75	0.01	0.47	0.24	0.01	0.47	0.23
Queue Length 95th (ft)	8	90	1	0	0	1	0	0
Control Delay (s)	51.8	129.8	11.2	0.0	0.0	11.3	0.0	0.0
Lane LOS	F	F	B			B		
Approach Delay (s)	51.8	129.8	0.1			0.1		
Approach LOS	F	F						

Intersection Summary				
Average Delay	3.3			
Intersection Capacity Utilization	40.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	11	12	12	11	12	12
Grade (%)		2%			8%			1%			-1%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.899			0.918							
Flt Protected		0.988			0.993		0.950			0.950		
Satd. Flow (prot)	0	1693	0	0	1630	0	1702	3522	0	1719	3557	0
Flt Permitted		0.988			0.993		0.950			0.950		
Satd. Flow (perm)	0	1693	0	0	1630	0	1702	3522	0	1719	3557	0
Headway Factor	0.97	0.97	0.97	1.05	1.05	1.05	1.05	1.01	1.01	1.04	0.99	0.99
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		158			1027			2407			3261	
Travel Time (s)		3.1			20.0			36.5			49.4	
Volume (vph)	1	0	3	3	6	14	6	1104	1	7	1057	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.50	0.50	0.50	0.39	0.39	0.39	0.92	0.92	0.92	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	2	0	6	8	15	36	7	1200	1	8	1188	1
Lane Group Flow (vph)	0	8	0	0	59	0	7	1201	0	8	1189	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 40.5%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			9%			2%			-5%	
Volume (veh/h)	28	6	27	31	6	15	25	1061	33	14	1007	26
Peak Hour Factor	0.90	0.90	0.90	0.72	0.90	0.72	0.90	0.94	0.94	0.95	0.95	0.90
Hourly flow rate (vph)	31	7	30	43	7	21	28	1129	35	15	1060	29
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1748	2323	544	1795	2320	582	1089			1164		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1748	2323	544	1795	2320	582	1089			1164		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	6.9	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 %	26	81	94	0	80	95	96			98		
cM capacity (veh/h)	42	34	483	38	34	456	636			596		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	68	71	28	752	411	15	707	382
Volume Left	31	43	28	0	0	15	0	0
Volume Right	30	21	0	0	35	0	0	29
cSH	68	51	636	1700	1700	596	1700	1700
Volume to Capacity	0.99	1.37	0.04	0.44	0.24	0.02	0.42	0.22
Queue Length 95th (ft)	125	162	3	0	0	2	0	0
Control Delay (s)	209.1	383.5	10.9	0.0	0.0	11.2	0.0	0.0
Lane LOS	F	F	B			B		
Approach Delay (s)	209.1	383.5	0.3			0.1		
Approach LOS	F	F						

Intersection Summary			
Average Delay	17.1		
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	10	10	11	12	12	11	12	12
Grade (%)		0%			9%			2%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.940			0.960			0.995			0.996	
Flt Protected		0.978			0.971		0.950			0.950		
Satd. Flow (prot)	0	1712	0	0	1548	0	1694	3486	0	1753	3613	0
Flt Permitted		0.978			0.971		0.950			0.950		
Satd. Flow (perm)	0	1712	0	0	1548	0	1694	3486	0	1753	3613	0
Headway Factor	1.00	1.00	1.00	1.16	1.16	1.16	1.06	1.01	1.01	1.01	0.97	0.97
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		294			1492			3261			2754	
Travel Time (s)		6.7			33.9			49.4			41.7	
Volume (vph)	28	6	27	31	6	15	25	1061	33	14	1007	26
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.72	0.90	0.72	0.90	0.94	0.94	0.95	0.95	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	31	7	30	43	7	21	28	1129	35	15	1060	29
Lane Group Flow (vph)	0	68	0	0	71	0	28	1164	0	15	1089	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 41.2%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	12	11	11	11	12
Grade (%)	-6%		-2%			-5%
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1883	1631	3332		1753	3628
Flt Permitted	0.95	1.00	1.00		0.08	1.00
Satd. Flow (perm)	1883	1631	3332		143	3628
Volume (vph)	408	169	1905	403	156	1418
Peak-hour factor, PHF	0.83	0.83	0.98	0.98	0.83	0.83
Adj. Flow (vph)	492	204	1944	411	188	1708
RTOR Reduction (vph)	0	59	0	0	0	0
Lane Group Flow (vph)	492	145	2355	0	188	1708
Heavy Vehicles (%)	2%	2%	3%	3%	2%	2%
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Actuated Green, G (s)	26.2	26.2	43.6		58.8	58.8
Effective Green, g (s)	29.2	29.2	47.6		62.8	62.8
Actuated g/C Ratio	0.29	0.29	0.48		0.63	0.63
Clearance Time (s)	7.0	7.0	8.0		6.0	8.0
Vehicle Extension (s)	3.0	3.0	6.0		3.0	6.0
Lane Grp Cap (vph)	550	476	1586		270	2278
v/s Ratio Prot	c0.26		c0.71		0.08	c0.47
v/s Ratio Perm		0.09			0.36	
v/c Ratio	0.89	0.31	1.48		0.70	0.75
Uniform Delay, d1	33.9	27.5	26.2		26.3	13.1
Progression Factor	1.00	1.00	1.00		1.37	0.49
Incremental Delay, d2	16.9	0.4	221.6		4.2	1.3
Delay (s)	50.8	27.9	247.8		40.2	7.7
Level of Service	D	C	F		D	A
Approach Delay (s)	44.1		247.8			10.9
Approach LOS	D		F			B

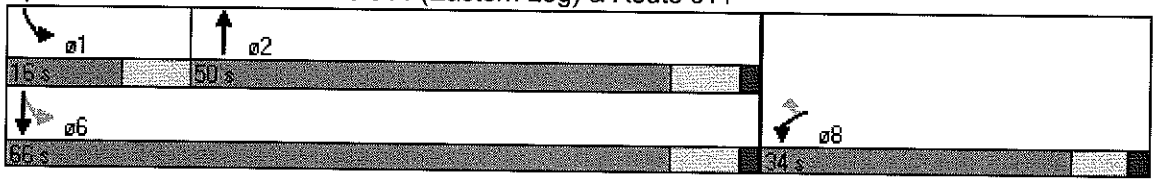
Intersection Summary			
HCM Average Control Delay	128.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	106.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	408	169	1905	156	1418
Lane Group Flow (vph)	492	204	2355	188	1708
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phases	8	8	2	1	6
Minimum Initial (s)	1.0	1.0	15.0	1.0	15.0
Minimum Split (s)	8.0	8.0	23.0	7.0	23.0
Total Split (s)	34.0	34.0	50.0	16.0	66.0
Total Split (%)	34.0%	34.0%	50.0%	16.0%	66.0%
Yellow Time (s)	5.0	5.0	6.0	6.0	6.0
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min
v/c Ratio	0.89	0.38	1.48	0.69	0.75
Control Delay	54.4	18.4	246.5	32.5	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.4	18.4	246.5	32.5	8.0
Queue Length 50th (ft)	296	58	~1115	56	105
Queue Length 95th (ft)	#410	105	#1252	m83	108
Internal Link Dist (ft)	1091		2024		1029
Turn Bay Length (ft)		72		175	
Base Capacity (vph)	565	547	1586	285	2278
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.87	0.37	1.48	0.66	0.75

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 140
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Route 314 (Eastern Leg) & Route 611



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	12	12
Grade (%)	4%			7%	-6%	
Total Lost time (s)		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	
Frt		0.86	1.00	1.00	0.99	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1445	1708	3415	3582	
Flt Permitted		1.00	0.95	1.00	1.00	
Satd. Flow (perm)		1445	1708	3415	3582	
Volume (vph)	0	211	401	1687	1363	73
Peak-hour factor, PHF	0.67	0.67	0.95	0.95	0.76	0.76
Adj. Flow (vph)	0	315	422	1776	1793	96
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	315	422	1776	1889	0
Heavy Vehicles (%)	4%	4%	2%	2%	3%	3%
Turn Type		Over	Prot			
Protected Phases		5	5	2	6	
Permitted Phases						
Actuated Green, G (s)		26.3	26.3	100.0	62.2	
Effective Green, g (s)		28.3	28.3	100.0	63.7	
Actuated g/C Ratio		0.28	0.28	1.00	0.64	
Clearance Time (s)		6.0	6.0	7.0	5.5	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		409	483	3415	2282	
v/s Ratio Prot		0.22	c0.25	0.52	c0.53	
v/s Ratio Perm						
v/c Ratio		0.77	0.87	0.52	0.83	
Uniform Delay, d1		32.9	34.1	0.0	13.9	
Progression Factor		1.00	0.47	1.00	1.00	
Incremental Delay, d2		8.7	1.8	0.1	3.6	
Delay (s)		41.5	17.9	0.1	17.6	
Level of Service		D	B	A	B	
Approach Delay (s)	41.5			3.5	17.6	
Approach LOS	D			A	B	

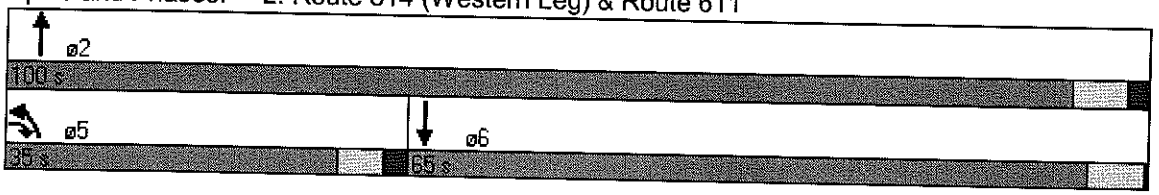
Intersection Summary			
HCM Average Control Delay	12.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBR	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	211	401	1687	1363
Lane Group Flow (vph)	315	422	1776	1889
Turn Type	Over	Prot		
Protected Phases	5	5	2	6
Permitted Phases				
Detector Phases	5	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	11.0	11.0	23.0	21.5
Total Split (s)	35.0	35.0	100.0	65.0
Total Split (%)	35.0%	35.0%	100.0%	65.0%
Yellow Time (s)	4.0	4.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	0.5
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Recall Mode	None	None	C-Min	C-Min
v/c Ratio	0.77	0.87	0.52	0.83
Control Delay	46.0	19.2	1.8	18.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	46.0	19.2	1.8	18.9
Queue Length 50th (ft)	176	168	2	483
Queue Length 95th (ft)	186	m102	m0	418
Internal Link Dist (ft)			1029	2209
Turn Bay Length (ft)		143		
Base Capacity (vph)	448	529	3415	2282
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.70	0.80	0.52	0.83

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 68 (68%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Route 314 (Western Leg) & Route 611



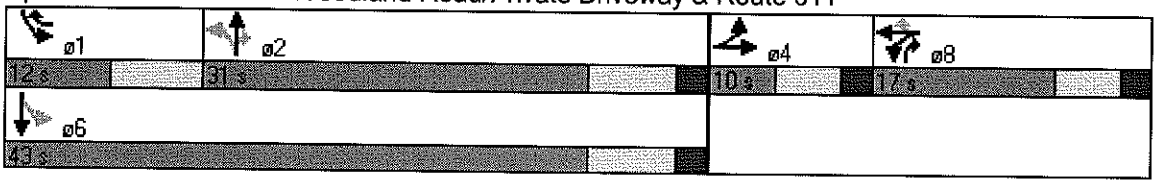
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	12	12	14	11	12	14	11	12	12
Grade (%)		6%			5%			3%			-7%	
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00		0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frt		0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1858		1639	1647	1647	1685	3486	1664	1770	3658	
Flt Permitted		0.98		0.95	0.95	1.00	0.21	1.00	1.00	0.13	1.00	
Satd. Flow (perm)		1858		1639	1647	1647	366	3486	1664	242	3658	
Volume (vph)	5	3	4	378	9	158	6	1221	432	176	1054	9
Peak-hour factor, PHF	0.56	0.56	0.56	0.89	0.89	0.89	0.99	0.99	0.99	0.82	0.82	0.82
Adj. Flow (vph)	9	5	7	425	10	178	6	1233	436	215	1285	11
RTOR Reduction (vph)	0	7	0	0	0	105	0	0	180	0	1	0
Lane Group Flow (vph)	0	14	0	213	222	73	6	1233	256	215	1295	0
Turn Type	Split			Split		pm+ov	Perm		pm+ov	pm+pt		
Protected Phases	4	4		8	8	1		2	8	1	6	
Permitted Phases						8	2		2	6		
Actuated Green, G (s)		1.4		10.4	10.4	17.0	23.3	23.3	33.7	35.4	35.4	
Effective Green, g (s)		3.4		12.4	12.4	20.5	26.8	26.8	39.2	38.9	38.9	
Actuated g/C Ratio		0.05		0.19	0.19	0.31	0.40	0.40	0.59	0.58	0.58	
Clearance Time (s)		6.0		6.0	6.0	5.5	7.5	7.5	6.0	5.5	7.5	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	5.0	5.0	3.0	3.0	5.0	
Lane Grp Cap (vph)		95		305	306	605	147	1401	978	327	2133	
v/s Ratio Prot		c0.01		0.13	c0.13	0.01		c0.35	0.05	0.08	c0.35	
v/s Ratio Perm						0.03	0.02		0.11	0.30		
v/c Ratio		0.15		0.70	0.73	0.12	0.04	0.88	0.26	0.66	0.61	
Uniform Delay, d1		30.3		25.4	25.5	16.6	12.1	18.5	6.7	11.6	9.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.7		6.8	8.3	0.1	0.2	7.3	0.1	4.7	0.7	
Delay (s)		31.0		32.2	33.8	16.7	12.4	25.7	6.8	16.3	9.7	
Level of Service		C		C	C	B	B	C	A	B	A	
Approach Delay (s)		31.0			28.3			20.8			10.6	
Approach LOS		C			C			C			B	

Intersection Summary				
HCM Average Control Delay	18.0	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.77			
Actuated Cycle Length (s)	66.7	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	70.9%	ICU Level of Service	C	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Volume (vph)	3	378	9	158	6	1221	432	176	1054
Lane Group Flow (vph)	21	213	222	178	6	1233	436	215	1296
Turn Type		Split		pm+ov	Perm		pm+ov	pm+pt	
Protected Phases	4	8	8	1		2	8	1	6
Permitted Phases				8	2		2	6	
Detector Phases	4	8	8	1	2	2	8	1	6
Minimum Initial (s)	4.0	7.0	7.0	4.0	10.0	10.0	7.0	4.0	10.0
Minimum Split (s)	10.0	13.0	13.0	9.5	17.5	17.5	13.0	9.5	17.5
Total Split (s)	10.0	17.0	17.0	12.0	31.0	31.0	17.0	12.0	43.0
Total Split (%)	14.3%	24.3%	24.3%	17.1%	44.3%	44.3%	24.3%	17.1%	61.4%
Yellow Time (s)	4.0	4.0	4.0	5.5	5.5	5.5	4.0	5.5	5.5
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0	2.0	2.0	0.0	2.0
Lead/Lag				Lead	Lag	Lag		Lead	
Lead-Lag Optimize?				Yes	Yes	Yes		Yes	
Recall Mode	None	None	None	None	Min	Min	None	None	Min
v/c Ratio	0.12	0.66	0.68	0.24	0.04	0.83	0.35	0.62	0.57
Control Delay	25.5	36.4	37.7	5.2	14.2	24.0	1.2	19.0	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	36.4	37.7	5.2	14.2	24.0	1.2	19.0	9.3
Queue Length 50th (ft)	5	73	76	6	1	188	0	26	110
Queue Length 95th (ft)	14	#184	#194	44	9	#391	14	#94	210
Internal Link Dist (ft)	105		2012			2209			2327
Turn Bay Length (ft)		250		250	73		350	183	
Base Capacity (vph)	168	337	339	733	145	1496	1255	344	2268
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.63	0.65	0.24	0.04	0.82	0.35	0.63	0.57

Intersection Summary
Cycle Length: 70
Actuated Cycle Length: 63
Natural Cycle: 75
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Woodland Road/Private Driveway & Route 611



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		2%			8%			1%			-1%	
Volume (veh/h)	0	0	4	1	1	17	4	1378	1	12	1234	1
Peak Hour Factor	0.75	0.75	0.75	0.50	0.50	0.50	0.97	0.97	0.97	0.83	0.83	0.83
Hourly flow rate (vph)	0	0	5	2	2	34	4	1421	1	14	1487	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2270	2946	744	2207	2946	711	1488			1422		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2270	2946	744	2207	2946	711	1488			1422		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	6.9	4.1			4.2		
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	99	91	85	91	99			97		
cM capacity (veh/h)	17	14	357	23	14	375	448			460		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	5	38	4	947	475	14	991	497
Volume Left	0	2	4	0	0	14	0	0
Volume Right	5	34	0	0	1	0	0	1
cSH	357	118	448	1700	1700	460	1700	1700
Volume to Capacity	0.01	0.32	0.01	0.56	0.28	0.03	0.58	0.29
Queue Length 95th (ft)	1	32	1	0	0	2	0	0
Control Delay (s)	15.2	49.5	13.1	0.0	0.0	13.1	0.0	0.0
Lane LOS	C	E	B			B		
Approach Delay (s)	15.2	49.5	0.0			0.1		
Approach LOS	C	E						

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	48.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	11	12	12	11	12	12
Grade (%)		2%			8%			1%			-1%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.865			0.879							
Flt Protected					0.997		0.950			0.950		
Satd. Flow (prot)	0	1648	0	0	1567	0	1702	3522	0	1670	3455	0
Flt Permitted					0.997		0.950			0.950		
Satd. Flow (perm)	0	1648	0	0	1567	0	1702	3522	0	1670	3455	0
Headway Factor	0.97	0.97	0.97	1.05	1.05	1.05	1.05	1.01	1.01	1.04	0.99	0.99
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		158			1027			2407			3261	
Travel Time (s)		3.1			20.0			36.5			49.4	
Volume (vph)	0	0	4	1	1	17	4	1378	1	12	1234	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.75	0.75	0.75	0.50	0.50	0.50	0.97	0.97	0.97	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	5%	5%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	5	2	2	34	4	1421	1	14	1487	1
Lane Group Flow (vph)	0	5	0	0	38	0	4	1422	0	14	1488	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 48.1%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			9%			2%			-5%	
Volume (veh/h)	20	4	20	13	7	18	31	1344	20	22	1214	31
Peak Hour Factor	0.90	0.90	0.90	0.75	0.90	0.75	0.90	0.97	0.97	0.77	0.77	0.90
Hourly flow rate (vph)	22	4	22	17	8	24	34	1386	21	29	1577	34
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2441	3126	806	2335	3133	703	1611			1406		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2441	3126	806	2335	3133	703	1611			1406		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	6.9	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 %	0	53	93	0	16	94	91			94		
cM capacity (veh/h)	4	9	325	10	9	379	401			481		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	49	49	34	924	482	29	1051	560
Volume Left	22	17	34	0	0	29	0	0
Volume Right	22	24	0	0	21	0	0	34
cSH	8	19	401	1700	1700	481	1700	1700
Volume to Capacity	6.06	2.59	0.09	0.54	0.28	0.06	0.62	0.33
Queue Length 95th (ft)	Err	164	7	0	0	5	0	0
Control Delay (s)	Err	1146.2	14.8	0.0	0.0	13.0	0.0	0.0
Lane LOS	F	F	B			B		
Approach Delay (s)	Err	1146.2	0.4			0.2		
Approach LOS	F	F						

Intersection Summary				
Average Delay	171.8			
Intersection Capacity Utilization	48.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	10	10	11	12	12	11	12	12
Grade (%)		0%			9%			2%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.938			0.934			0.998			0.997	
Flt Protected		0.978			0.983		0.950			0.950		
Satd. Flow (prot)	0	1709	0	0	1524	0	1694	3497	0	1753	3617	0
Flt Permitted		0.978			0.983		0.950			0.950		
Satd. Flow (perm)	0	1709	0	0	1524	0	1694	3497	0	1753	3617	0
Headway Factor	1.00	1.00	1.00	1.16	1.16	1.16	1.06	1.01	1.01	1.01	0.97	0.97
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		294			1492			3261			2754	
Travel Time (s)		6.7			33.9			49.4			41.7	
Volume (vph)	20	4	20	13	7	18	31	1344	20	22	1214	31
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.75	0.90	0.75	0.90	0.97	0.97	0.77	0.77	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	22	4	22	17	8	24	34	1386	21	29	1577	34
Lane Group Flow (vph)	0	48	0	0	49	0	34	1407	0	29	1611	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	12	11	11	11	12
Grade (%)	-6%		-2%			-5%
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1883	1631	3389		1753	3628
Flt Permitted	0.95	1.00	1.00		0.06	1.00
Satd. Flow (perm)	1883	1631	3389		115	3628
Volume (vph)	172	75	1786	261	101	1477
Peak-hour factor, PHF	0.90	0.90	0.94	0.94	0.94	0.94
Adj. Flow (vph)	191	83	1900	278	107	1571
RTOR Reduction (vph)	0	68	0	0	0	0
Lane Group Flow (vph)	191	15	2178	0	107	1571
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Actuated Green, G (s)	9.0	9.0	56.0		66.0	66.0
Effective Green, g (s)	12.0	12.0	60.0		70.0	70.0
Actuated g/C Ratio	0.13	0.13	0.67		0.78	0.78
Clearance Time (s)	7.0	7.0	8.0		6.0	8.0
Vehicle Extension (s)	3.0	3.0	6.0		3.0	6.0
Lane Grp Cap (vph)	251	217	2259		199	2822
v/s Ratio Prot	c0.10		c0.64		0.04	c0.43
v/s Ratio Perm		0.01			0.38	
v/c Ratio	0.76	0.07	0.96		0.54	0.56
Uniform Delay, d1	37.6	34.1	14.0		20.8	3.9
Progression Factor	1.00	1.00	1.00		1.87	0.63
Incremental Delay, d2	12.7	0.1	12.2		2.3	0.7
Delay (s)	50.4	34.3	26.2		41.3	3.1
Level of Service	D	C	C		D	A
Approach Delay (s)	45.5		26.2			5.6
Approach LOS	D		C			A

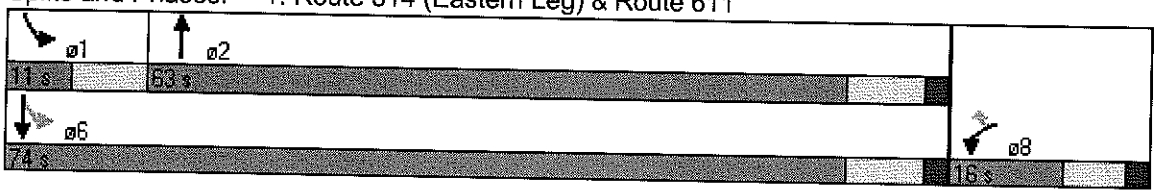
Intersection Summary			
HCM Average Control Delay	19.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	172	75	1786	101	1477
Lane Group Flow (vph)	191	83	2178	107	1571
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phases	8	8	2	1	6
Minimum Initial (s)	1.0	1.0	15.0	1.0	15.0
Minimum Split (s)	8.0	8.0	23.0	7.0	23.0
Total Split (s)	16.0	16.0	63.0	11.0	74.0
Total Split (%)	17.8%	17.8%	70.0%	12.2%	82.2%
Yellow Time (s)	5.0	5.0	6.0	6.0	6.0
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min
v/c Ratio	0.76	0.29	0.94	0.49	0.56
Control Delay	58.4	12.7	24.6	24.4	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	58.4	12.7	24.6	24.4	3.2
Queue Length 50th (ft)	106	3	557	10	61
Queue Length 95th (ft)	#211	43	#809	m66	66
Internal Link Dist (ft)	1091		2024		1033
Turn Bay Length (ft)		72		175	
Base Capacity (vph)	251	285	2305	218	2822
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.76	0.29	0.94	0.49	0.56

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Route 314 (Eastern Leg) & Route 611



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	12	12
Grade (%)	4%			7%	-6%	
Total Lost time (s)		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	0.95	0.95	
Frt		0.86	1.00	1.00	1.00	
Flt Protected		1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1445	1708	3415	3627	
Flt Permitted		1.00	0.95	1.00	1.00	
Satd. Flow (perm)		1445	1708	3415	3627	
Volume (vph)	0	182	187	1696	1396	48
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.97	0.97
Adj. Flow (vph)	0	190	195	1767	1439	49
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	190	195	1767	1488	0
Heavy Vehicles (%)	4%	4%	2%	2%	2%	2%
Turn Type		Over	Prot			
Protected Phases		5	5	2	6	
Permitted Phases						
Actuated Green, G (s)		15.9	15.9	90.0	61.1	
Effective Green, g (s)		17.9	17.9	90.0	64.1	
Actuated g/C Ratio		0.20	0.20	1.00	0.71	
Clearance Time (s)		6.0	6.0	7.0	7.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		287	340	3415	2583	
v/s Ratio Prot		c0.13	0.11	0.52	c0.41	
v/s Ratio Perm						
v/c Ratio		0.66	0.57	0.52	0.58	
Uniform Delay, d1		33.3	32.6	0.0	6.3	
Progression Factor		1.00	0.69	1.00	1.00	
Incremental Delay, d2		5.6	0.9	0.2	0.9	
Delay (s)		38.9	23.2	0.2	7.3	
Level of Service		D	C	A	A	
Approach Delay (s)	38.9			2.5	7.3	
Approach LOS	D			A	A	

Intersection Summary			
HCM Average Control Delay	6.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		

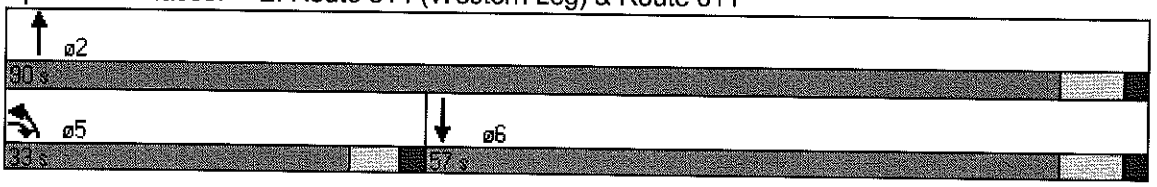
c Critical Lane Group

Lane Group	EBR	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	182	187	1696	1396
Lane Group Flow (vph)	190	195	1767	1488
Turn Type	Over	Prot		
Protected Phases	5	5	2	6
Permitted Phases				
Detector Phases	5	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	10.0	23.0	23.0
Total Split (s)	33.0	33.0	90.0	57.0
Total Split (%)	36.7%	36.7%	100.0%	63.3%
Yellow Time (s)	4.0	4.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Recall Mode	None	None	C-Min	C-Min
v/c Ratio	0.66	0.58	0.52	0.58
Control Delay	43.7	24.3	0.2	8.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	43.7	24.3	0.2	8.2
Queue Length 50th (ft)	101	89	0	179
Queue Length 95th (ft)	153	m79	m0	325
Internal Link Dist (ft)			1033	2203
Turn Bay Length (ft)		143		
Base Capacity (vph)	466	550	3415	2585
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.41	0.35	0.52	0.58

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 84 (93%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Route 314 (Western Leg) & Route 611



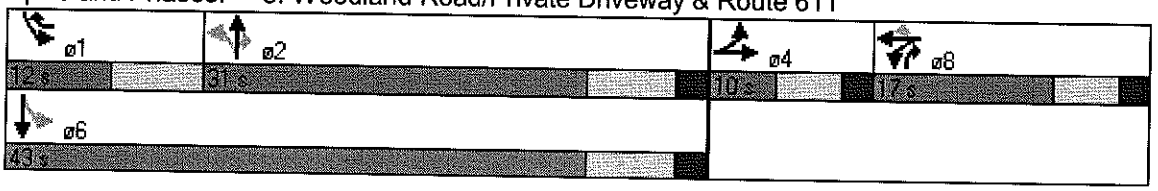
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	15	15	15	12	12	14	11	12	14	11	12	12
Grade (%)		6%			5%			3%			-7%	
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00		0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frt		0.91		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.99		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1781		1639	1645	1647	1685	3486	1664	1770	3655	
Flt Permitted		0.99		0.95	0.95	1.00	0.26	1.00	1.00	0.13	1.00	
Satd. Flow (perm)		1781		1639	1645	1647	460	3486	1664	249	3655	
Volume (vph)	6	1	16	367	5	79	17	1201	434	126	1061	17
Peak-hour factor, PHF	0.61	0.61	0.61	0.92	0.92	0.92	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	10	2	26	399	5	86	17	1226	443	129	1083	17
RTOR Reduction (vph)	0	24	0	0	0	61	0	0	180	0	2	0
Lane Group Flow (vph)	0	14	0	200	204	25	17	1226	263	129	1098	0
Turn Type	Split			Split		pm+ov	Perm		pm+ov	pm+pt		
Protected Phases	4	4		8	8	1		2	8	1	6	
Permitted Phases						8	2		2	6		
Actuated Green, G (s)		2.1		10.4	10.4	15.1	22.4	22.4	32.8	32.6	32.6	
Effective Green, g (s)		4.1		12.4	12.4	18.6	25.9	25.9	38.3	36.1	36.1	
Actuated g/C Ratio		0.06		0.19	0.19	0.29	0.40	0.40	0.59	0.56	0.56	
Clearance Time (s)		6.0		6.0	6.0	5.5	7.5	7.5	6.0	5.5	7.5	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	5.0	5.0	3.0	3.0	5.0	
Lane Grp Cap (vph)		113		315	316	576	184	1398	987	285	2043	
v/s Ratio Prot		c0.01		0.12	c0.12	0.00		c0.35	0.05	0.04	c0.30	
v/s Ratio Perm						0.01	0.04		0.11	0.21		
v/c Ratio		0.12		0.63	0.65	0.04	0.09	0.88	0.27	0.45	0.54	
Uniform Delay, d1		28.5		24.0	24.1	16.6	12.0	17.9	6.4	11.0	9.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.5		4.1	4.5	0.0	0.5	7.0	0.1	1.1	0.5	
Delay (s)		29.0		28.2	28.6	16.6	12.5	24.9	6.5	12.1	9.5	
Level of Service		C		C	C	B	B	C	A	B	A	
Approach Delay (s)		29.0			26.3			20.0			9.8	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	64.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Volume (vph)	1	367	5	79	17	1201	434	126	1061
Lane Group Flow (vph)	38	200	204	86	17	1226	443	129	1100
Turn Type		Split		pm+ov	Perm		pm+ov	pm+pt	
Protected Phases	4	8	8	1		2	8	1	6
Permitted Phases				8	2		2	6	
Detector Phases	4	8	8	1	2	2	8	1	6
Minimum Initial (s)	4.0	7.0	7.0	4.0	10.0	10.0	7.0	4.0	10.0
Minimum Split (s)	10.0	13.0	13.0	9.5	17.5	17.5	13.0	9.5	17.5
Total Split (s)	10.0	17.0	17.0	12.0	31.0	31.0	17.0	12.0	43.0
Total Split (%)	14.3%	24.3%	24.3%	17.1%	44.3%	44.3%	24.3%	17.1%	61.4%
Yellow Time (s)	4.0	4.0	4.0	5.5	5.5	5.5	4.0	5.5	5.5
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0	2.0	2.0	0.0	2.0
Lead/Lag				Lead	Lag	Lag		Lead	
Lead-Lag Optimize?				Yes	Yes	Yes		Yes	
Recall Mode	None	None	None	None	Min	Min	None	None	Min
v/c Ratio	0.20	0.60	0.61	0.13	0.09	0.82	0.34	0.40	0.53
Control Delay	19.0	34.4	34.8	4.7	15.4	24.3	1.2	10.8	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.0	34.4	34.8	4.7	15.4	24.3	1.2	10.8	9.7
Queue Length 50th (ft)	5	85	87	0	5	256	0	24	143
Queue Length 95th (ft)	17	#171	#175	26	17	#387	14	48	193
Internal Link Dist (ft)	105		2012			2203			2327
Turn Bay Length (ft)		250		250	73		350	183	
Base Capacity (vph)	192	360	361	662	204	1549	1285	327	2208
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.56	0.57	0.13	0.08	0.79	0.34	0.39	0.50

Intersection Summary
Cycle Length: 70
Actuated Cycle Length: 61.2
Natural Cycle: 65
Control Type: Semi Act-Uncoord
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Woodland Road/Private Driveway & Route 611



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		2%			8%			1%			-1%	
Volume (veh/h)	1	0	4	4	8	16	8	1273	1	7	1196	1
Peak Hour Factor	0.50	0.50	0.50	0.39	0.39	0.39	0.92	0.92	0.92	0.89	0.89	0.89
Hourly flow rate (vph)	2	0	8	10	21	41	9	1384	1	8	1344	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2121	2762	672	2097	2762	692	1345			1385		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2121	2762	672	2097	2762	692	1345			1385		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	6.9	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 %	0	100	98	64	0	89	98			98		
cM capacity (veh/h)	0	18	398	28	18	386	508			491		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	10	72	9	922	462	8	896	449
Volume Left	2	10	9	0	0	8	0	0
Volume Right	8	41	0	0	1	0	0	1
cSH	0	45	508	1700	1700	491	1700	1700
Volume to Capacity	Err	1.59	0.02	0.54	0.27	0.02	0.53	0.26
Queue Length 95th (ft)	Err	178	1	0	0	1	0	0
Control Delay (s)	Err	491.5	12.2	0.0	0.0	12.5	0.0	0.0
Lane LOS	F	F	B			B		
Approach Delay (s)	Err	491.5	0.1			0.1		
Approach LOS	F	F						

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	11	12	12	11	12	12
Grade (%)		2%			8%			1%			-1%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.892			0.923							
Flt Protected		0.990			0.993		0.950			0.950		
Satd. Flow (prot)	0	1683	0	0	1639	0	1702	3522	0	1719	3557	0
Flt Permitted		0.990			0.993		0.950			0.950		
Satd. Flow (perm)	0	1683	0	0	1639	0	1702	3522	0	1719	3557	0
Headway Factor	0.97	0.97	0.97	1.05	1.05	1.05	1.05	1.01	1.01	1.04	0.99	0.99
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		158			1027			2407			3261	
Travel Time (s)		3.1			20.0			36.5			49.4	
Volume (vph)	1	0	4	4	8	16	8	1273	1	7	1196	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.50	0.50	0.50	0.39	0.39	0.39	0.92	0.92	0.92	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	2	0	8	10	21	41	9	1384	1	8	1344	1
Lane Group Flow (vph)	0	10	0	0	72	0	9	1385	0	8	1345	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.2%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			9%			2%			-5%	
Volume (veh/h)	28	6	27	34	6	17	25	1229	36	16	1143	26
Peak Hour Factor	0.90	0.90	0.90	0.72	0.90	0.72	0.90	0.94	0.94	0.95	0.95	0.90
Hourly flow rate (vph)	31	7	30	47	7	24	28	1307	38	17	1203	29
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1988	2653	616	2051	2648	673	1232			1346		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1988	2653	616	2051	2648	673	1232			1346		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	6.9	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 %	0	68	93	0	68	94	95			97		
cM capacity (veh/h)	24	21	433	21	21	397	561			508		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	68	78	28	872	474	17	802	430
Volume Left	31	47	28	0	0	17	0	0
Volume Right	30	24	0	0	38	0	0	29
cSH	40	30	561	1700	1700	508	1700	1700
Volume to Capacity	1.69	2.63	0.05	0.51	0.28	0.03	0.47	0.25
Queue Length 95th (ft)	176	229	4	0	0	3	0	0
Control Delay (s)	553.0	1019.8	11.7	0.0	0.0	12.3	0.0	0.0
Lane LOS	F	F	B			B		
Approach Delay (s)	553.0	1019.8	0.2			0.2		
Approach LOS	F	F						

Intersection Summary			
Average Delay	42.3		
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	10	10	11	12	12	11	12	12
Grade (%)		0%			9%			2%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.940			0.958			0.996			0.996	
Flt Protected		0.978			0.971		0.950			0.950		
Satd. Flow (prot)	0	1712	0	0	1544	0	1694	3490	0	1753	3613	0
Flt Permitted		0.978			0.971		0.950			0.950		
Satd. Flow (perm)	0	1712	0	0	1544	0	1694	3490	0	1753	3613	0
Headway Factor	1.00	1.00	1.00	1.16	1.16	1.16	1.06	1.01	1.01	1.01	0.97	0.97
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		294			1492			3261			2754	
Travel Time (s)		6.7			33.9			49.4			41.7	
Volume (vph)	28	6	27	34	6	17	25	1229	36	16	1143	26
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.72	0.90	0.72	0.90	0.94	0.94	0.95	0.95	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	31	7	30	47	7	24	28	1307	38	17	1203	29
Lane Group Flow (vph)	0	68	0	0	78	0	28	1345	0	17	1232	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.4%		ICU Level of Service A	
Analysis Period (min) 15			

SIGNALIZATION ONLY

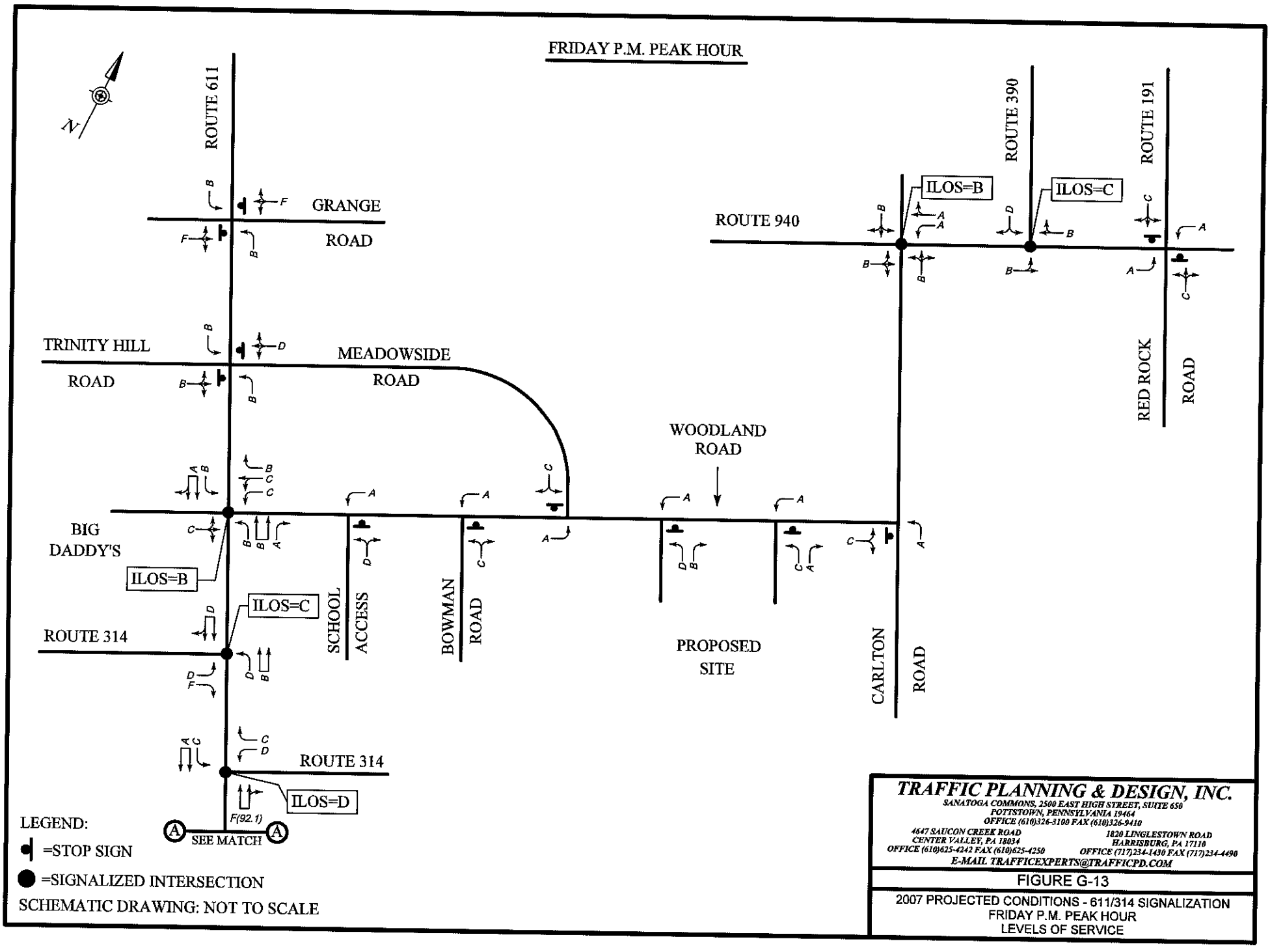


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FIGURE G-13

2007 PROJECTED CONDITIONS - 611/314 SIGNALIZATION
FRIDAY P.M. PEAK HOUR
LEVELS OF SERVICE

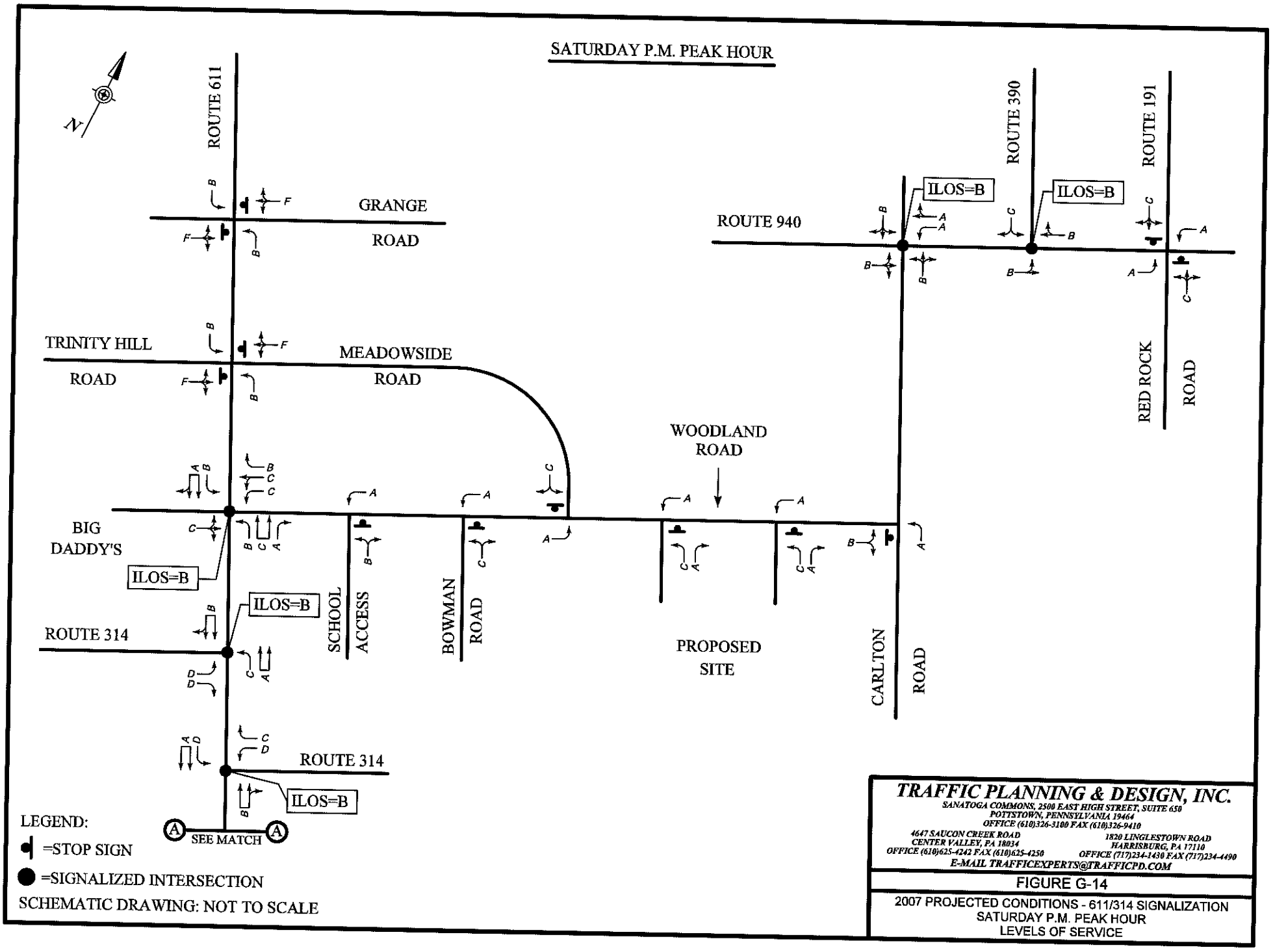

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FIGURE G-14

2007 PROJECTED CONDITIONS - 611/314 SIGNALIZATION
SATURDAY P.M. PEAK HOUR
LEVELS OF SERVICE

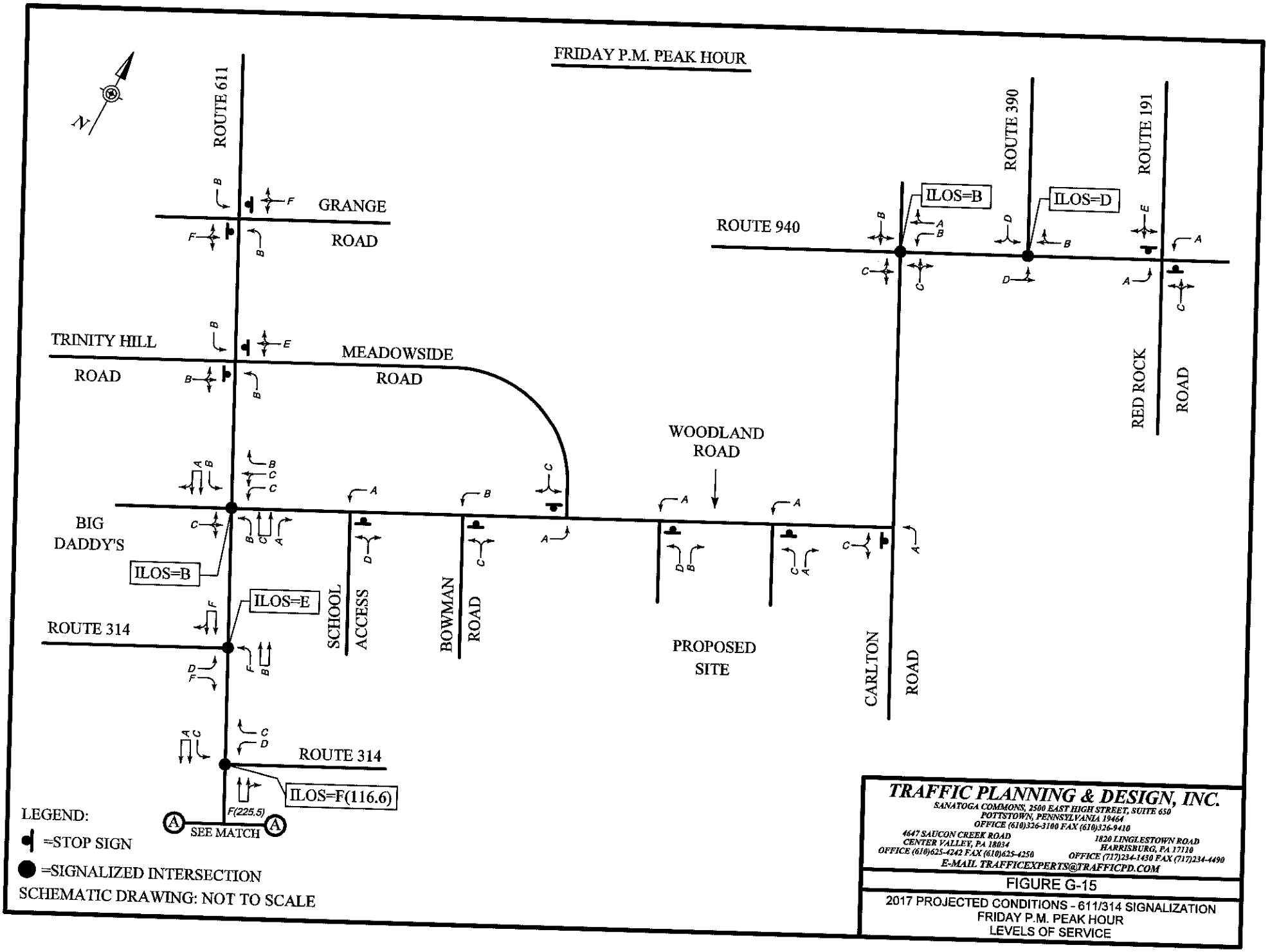

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FIGURE G-15

2017 PROJECTED CONDITIONS - 611/314 SIGNALIZATION
FRIDAY P.M. PEAK HOUR
LEVELS OF SERVICE

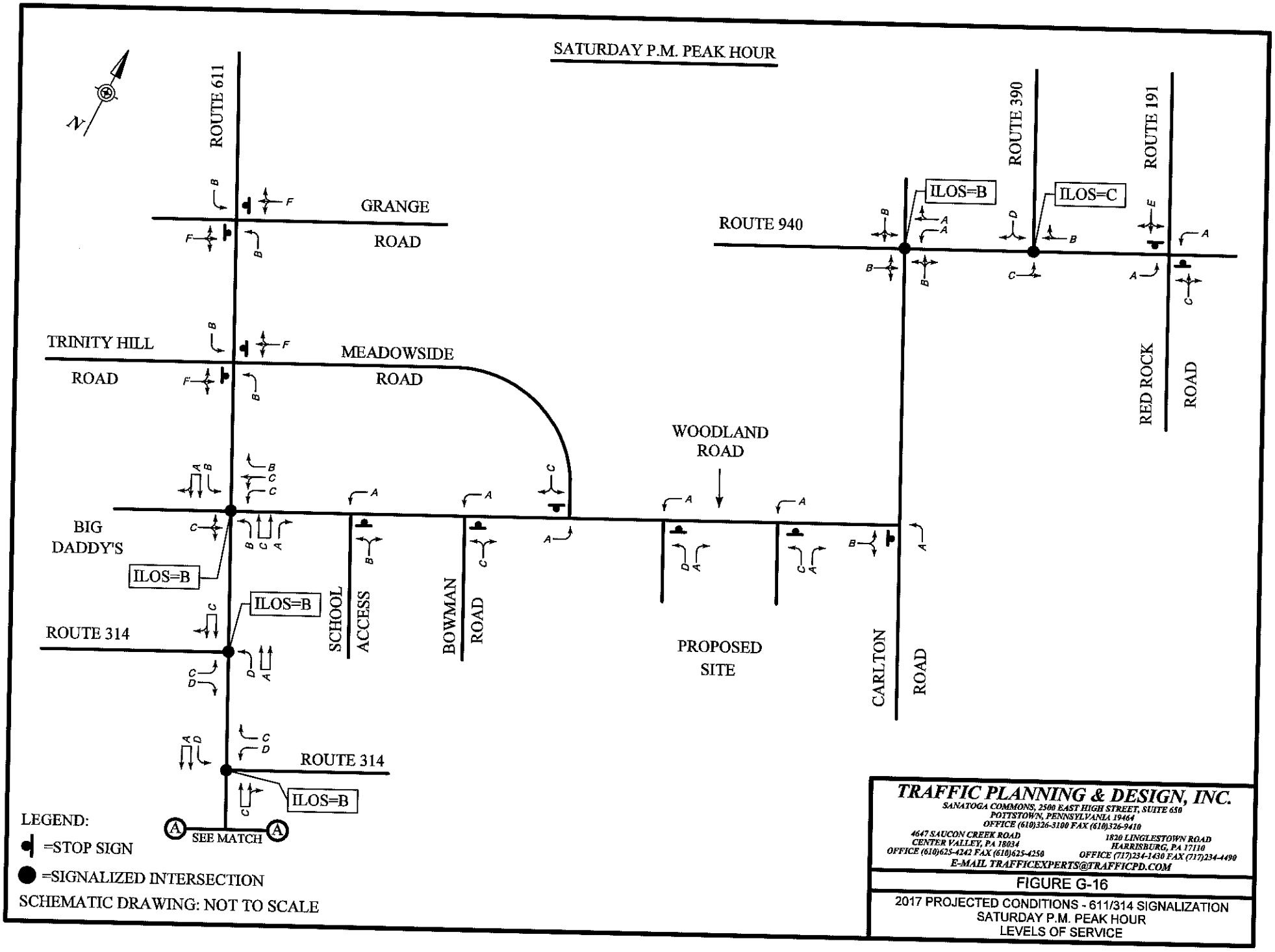

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FIGURE G-16

2017 PROJECTED CONDITIONS - 611/314 SIGNALIZATION
SATURDAY P.M. PEAK HOUR
LEVELS OF SERVICE

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	12	11	11	11	12
Grade (%)	-6%		-2%			-5%
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1883	1631	3334		1753	3628
Flt Permitted	0.95	1.00	1.00		0.07	1.00
Satd. Flow (perm)	1883	1631	3334		128	3628
Volume (vph)	345	142	1659	343	119	1241
Peak-hour factor, PHF	0.83	0.83	0.98	0.98	0.83	0.83
Adj. Flow (vph)	416	171	1693	350	143	1495
RTOR Reduction (vph)	0	58	0	0	0	0
Lane Group Flow (vph)	416	113	2043	0	143	1495
Heavy Vehicles (%)	2%	2%	3%	3%	2%	2%
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Actuated Green, G (s)	22.3	22.3	49.9		62.7	62.7
Effective Green, g (s)	25.3	25.3	53.9		66.7	66.7
Actuated g/C Ratio	0.25	0.25	0.54		0.67	0.67
Clearance Time (s)	7.0	7.0	8.0		6.0	8.0
Vehicle Extension (s)	3.0	3.0	6.0		3.0	6.0
Lane Grp Cap (vph)	476	413	1797		228	2420
v/s Ratio Prot	c0.22		c0.61		0.06	c0.41
v/s Ratio Perm		0.07			0.36	
v/c Ratio	0.87	0.27	1.14		0.63	0.62
Uniform Delay, d1	35.8	30.0	23.0		25.1	9.4
Progression Factor	1.00	1.00	1.00		1.13	0.71
Incremental Delay, d2	16.2	0.4	69.0		1.8	0.4
Delay (s)	52.0	30.3	92.1		30.1	7.1
Level of Service	D	C	F		C	A
Approach Delay (s)	45.7		92.1			9.1
Approach LOS	D		F			A

Intersection Summary			
HCM Average Control Delay	53.8	HCM Level of Service	D
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	92.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	345	142	1659	119	1241
Lane Group Flow (vph)	416	171	2043	143	1495
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phases	8	8	2	1	6
Minimum Initial (s)	1.0	1.0	15.0	1.0	15.0
Minimum Split (s)	8.0	8.0	23.0	7.0	23.0
Total Split (s)	30.0	30.0	57.0	13.0	70.0
Total Split (%)	30.0%	30.0%	57.0%	13.0%	70.0%
Yellow Time (s)	5.0	5.0	6.0	6.0	6.0
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min
v/c Ratio	0.87	0.36	1.14	0.62	0.62
Control Delay	55.9	18.8	94.3	21.9	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	18.8	94.3	21.9	7.3
Queue Length 50th (ft)	252	47	~814	20	322
Queue Length 95th (ft)	#356	91	#952	m24	300
Internal Link Dist (ft)	1091		2024		1031
Turn Bay Length (ft)		72		175	
Base Capacity (vph)	490	482	1794	232	2419
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.85	0.35	1.14	0.62	0.62

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection

Natural Cycle: 100

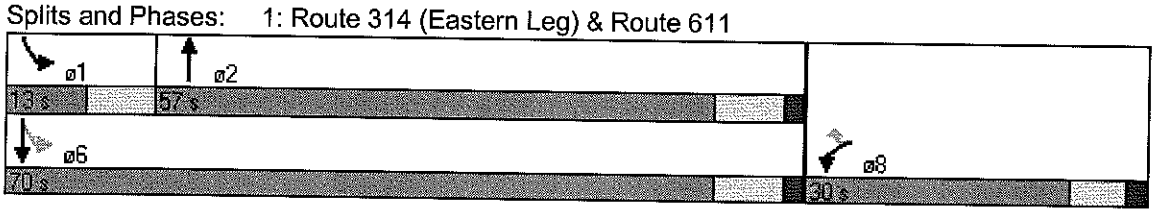
Control Type: Actuated-Coordinated

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Route 314 (Eastern Leg) & Route 611



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	12	12
Grade (%)	4%			7%	-6%	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1587	1420	1708	3415	3583	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1587	1420	1708	3415	3583	
Volume (vph)	41	164	328	1473	1196	64
Peak-hour factor, PHF	0.67	0.67	0.95	0.95	0.76	0.76
Adj. Flow (vph)	61	245	345	1551	1574	84
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	61	245	345	1551	1658	0
Heavy Vehicles (%)	4%	4%	2%	2%	3%	3%
Turn Type		Perm	Prot			
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	16.1	16.1	19.0	71.9	46.9	
Effective Green, g (s)	18.1	18.1	21.0	73.9	48.9	
Actuated g/C Ratio	0.18	0.18	0.21	0.74	0.49	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	287	257	359	2524	1752	
v/s Ratio Prot	0.04		c0.20	0.45	c0.46	
v/s Ratio Perm		c0.17				
v/c Ratio	0.21	0.95	0.96	0.61	0.95	
Uniform Delay, d1	34.9	40.5	39.1	6.2	24.3	
Progression Factor	1.00	1.00	0.81	1.65	1.00	
Incremental Delay, d2	0.4	43.1	7.3	0.1	12.1	
Delay (s)	35.3	83.6	39.0	10.4	36.4	
Level of Service	D	F	D	B	D	
Approach Delay (s)	74.0			15.6	36.4	
Approach LOS	E			B	D	

Intersection Summary			
HCM Average Control Delay	29.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		

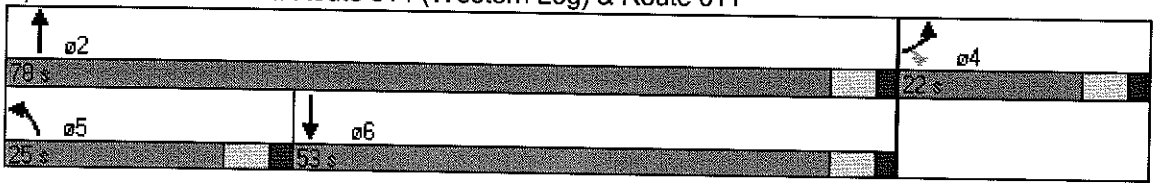
c Critical Lane Group

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Volume (vph)	41	164	328	1473	1196
Lane Group Flow (vph)	61	245	345	1551	1658
Turn Type		Perm	Prot		
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phases	4	4	5	2	6
Minimum Initial (s)	7.0	7.0	7.0	15.0	15.0
Minimum Split (s)	13.0	13.0	13.0	21.0	21.0
Total Split (s)	22.0	22.0	25.0	78.0	53.0
Total Split (%)	22.0%	22.0%	25.0%	78.0%	53.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Min	C-Min
v/c Ratio	0.21	0.95	0.96	0.61	0.95
Control Delay	37.3	87.4	41.8	10.6	37.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	87.4	41.8	10.6	37.2
Queue Length 50th (ft)	34	156	196	455	507
Queue Length 95th (ft)	52	#186	m176	m291	458
Internal Link Dist (ft)	3880			1031	2203
Turn Bay Length (ft)	50		143		
Base Capacity (vph)	288	257	359	2527	1755
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.21	0.95	0.96	0.61	0.94

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 57 (57%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Route 314 (Western Leg) & Route 611



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	12	11	11	11	12
Grade (%)	-6%		-2%			-5%
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1883	1631	3391		1753	3628
Flt Permitted	0.95	1.00	1.00		0.06	1.00
Satd. Flow (perm)	1883	1631	3391		116	3628
Volume (vph)	148	66	1570	223	70	1312
Peak-hour factor, PHF	0.90	0.90	0.94	0.94	0.94	0.94
Adj. Flow (vph)	164	73	1670	237	74	1396
RTOR Reduction (vph)	0	63	0	0	0	0
Lane Group Flow (vph)	164	10	1907	0	74	1396
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Actuated Green, G (s)	9.4	9.4	55.5		65.6	65.6
Effective Green, g (s)	12.4	12.4	59.5		69.6	69.6
Actuated g/C Ratio	0.14	0.14	0.66		0.77	0.77
Clearance Time (s)	7.0	7.0	8.0		6.0	8.0
Vehicle Extension (s)	3.0	3.0	6.0		3.0	6.0
Lane Grp Cap (vph)	259	225	2242		201	2806
v/s Ratio Prot	c0.09		c0.56		0.02	c0.38
v/s Ratio Perm		0.01			0.26	
v/c Ratio	0.63	0.04	0.85		0.37	0.50
Uniform Delay, d1	36.7	33.7	11.8		13.4	3.8
Progression Factor	1.00	1.00	1.00		3.19	0.34
Incremental Delay, d2	5.0	0.1	4.3		0.9	0.5
Delay (s)	41.6	33.7	16.1		43.6	1.8
Level of Service	D	C	B		D	A
Approach Delay (s)	39.2		16.1			3.9
Approach LOS	D		B			A

Intersection Summary			
HCM Average Control Delay	12.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	148	66	1570	70	1312
Lane Group Flow (vph)	164	73	1907	74	1396
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phases	8	8	2	1	6
Minimum Initial (s)	1.0	1.0	15.0	1.0	15.0
Minimum Split (s)	8.0	8.0	23.0	7.0	23.0
Total Split (s)	16.0	16.0	63.0	11.0	74.0
Total Split (%)	17.8%	17.8%	70.0%	12.2%	82.2%
Yellow Time (s)	5.0	5.0	6.0	6.0	6.0
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min
v/c Ratio	0.63	0.25	0.83	0.33	0.50
Control Delay	49.0	11.5	16.0	20.1	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	11.5	16.0	20.1	1.8
Queue Length 50th (ft)	90	0	398	8	22
Queue Length 95th (ft)	#169	38	520	m39	43
Internal Link Dist (ft)	1091		2024		1031
Turn Bay Length (ft)		72		175	
Base Capacity (vph)	261	289	2309	221	2827
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.25	0.83	0.33	0.49

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection

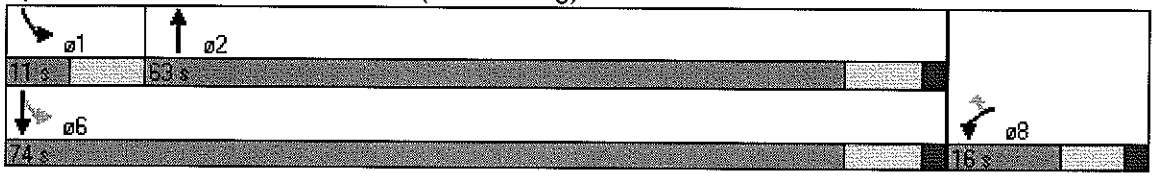
Natural Cycle: 60

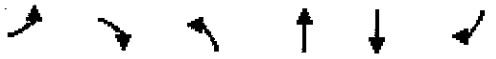
Control Type: Actuated-Coordinated

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Route 314 (Eastern Leg) & Route 611





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	12	12
Grade (%)	4%			7%	-6%	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1587	1420	1708	3415	3627	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1587	1420	1708	3415	3627	
Volume (vph)	50	135	158	1478	1247	44
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.97	0.97
Adj. Flow (vph)	52	141	165	1540	1286	45
RTOR Reduction (vph)	0	124	0	0	2	0
Lane Group Flow (vph)	52	17	165	1540	1329	0
Heavy Vehicles (%)	4%	4%	2%	2%	2%	2%
Turn Type		Perm	Prot			
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	8.7	8.7	13.5	69.3	49.8	
Effective Green, g (s)	10.7	10.7	15.5	71.3	51.8	
Actuated g/C Ratio	0.12	0.12	0.17	0.79	0.58	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	189	169	294	2705	2088	
v/s Ratio Prot	c0.03		0.10	c0.45	c0.37	
v/s Ratio Perm		0.01				
v/c Ratio	0.28	0.10	0.56	0.57	0.64	
Uniform Delay, d1	36.1	35.4	34.1	3.5	12.8	
Progression Factor	1.00	1.00	0.79	1.69	1.00	
Incremental Delay, d2	0.8	0.3	1.4	0.5	1.5	
Delay (s)	36.9	35.6	28.5	6.5	14.3	
Level of Service	D	D	C	A	B	
Approach Delay (s)	36.0			8.6	14.3	
Approach LOS	D			A	B	

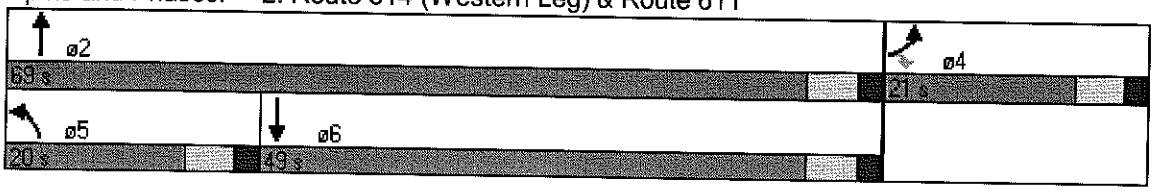
Intersection Summary			
HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Volume (vph)	50	135	158	1478	1247
Lane Group Flow (vph)	52	141	165	1540	1331
Turn Type		Perm	Prot		
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phases	4	4	5	2	6
Minimum Initial (s)	7.0	7.0	7.0	15.0	15.0
Minimum Split (s)	13.0	13.0	13.0	21.0	21.0
Total Split (s)	21.0	21.0	20.0	69.0	49.0
Total Split (%)	23.3%	23.3%	22.2%	76.7%	54.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Min	C-Min
v/c Ratio	0.28	0.48	0.56	0.57	0.64
Control Delay	39.3	12.3	30.9	7.0	15.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	39.3	12.3	30.9	7.0	15.5
Queue Length 50th (ft)	28	0	90	213	245
Queue Length 95th (ft)	60	51	m111	304	380
Internal Link Dist (ft)	3880			1031	2203
Turn Bay Length (ft)	50		143		
Base Capacity (vph)	300	383	325	2706	2090
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.17	0.37	0.51	0.57	0.64

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Route 314 (Western Leg) & Route 611



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	12	11	11	11	12
Grade (%)	-6%		-2%			-5%
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1883	1631	3332		1753	3628
Flt Permitted	0.95	1.00	1.00		0.08	1.00
Satd. Flow (perm)	1883	1631	3332		139	3628
Volume (vph)	408	169	1905	403	142	1418
Peak-hour factor, PHF	0.83	0.83	0.98	0.98	0.83	0.83
Adj. Flow (vph)	492	204	1944	411	171	1708
RTOR Reduction (vph)	0	59	0	0	0	0
Lane Group Flow (vph)	492	145	2355	0	171	1708
Heavy Vehicles (%)	2%	2%	3%	3%	2%	2%
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Actuated Green, G (s)	26.2	26.2	45.2		58.8	58.8
Effective Green, g (s)	29.2	29.2	49.2		62.8	62.8
Actuated g/C Ratio	0.29	0.29	0.49		0.63	0.63
Clearance Time (s)	7.0	7.0	8.0		6.0	8.0
Vehicle Extension (s)	3.0	3.0	6.0		3.0	6.0
Lane Grp Cap (vph)	550	476	1639		242	2278
v/s Ratio Prot	c0.26		c0.71		0.07	c0.47
v/s Ratio Perm		0.09			0.38	
v/c Ratio	0.89	0.31	1.44		0.71	0.75
Uniform Delay, d1	33.9	27.5	25.4		26.0	13.1
Progression Factor	1.00	1.00	1.00		1.29	0.31
Incremental Delay, d2	16.9	0.4	200.1		0.9	0.2
Delay (s)	50.8	27.9	225.5		34.4	4.2
Level of Service	D	C	F		C	A
Approach Delay (s)	44.1		225.5			7.0
Approach LOS	D		F			A

Intersection Summary			
HCM Average Control Delay	116.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	106.0%	ICU Level of Service	G
Analysis Period (min)	15		

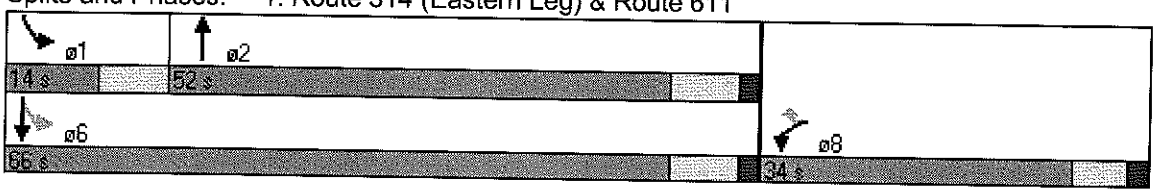
c Critical Lane Group

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	408	169	1905	142	1418
Lane Group Flow (vph)	492	204	2355	171	1708
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phases	8	8	2	1	6
Minimum Initial (s)	1.0	1.0	15.0	1.0	15.0
Minimum Split (s)	8.0	8.0	23.0	7.0	23.0
Total Split (s)	34.0	34.0	52.0	14.0	66.0
Total Split (%)	34.0%	34.0%	52.0%	14.0%	66.0%
Yellow Time (s)	5.0	5.0	6.0	6.0	6.0
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min
v/c Ratio	0.89	0.38	1.44	0.70	0.75
Control Delay	54.4	18.4	225.3	24.6	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.4	18.4	225.3	24.6	4.4
Queue Length 50th (ft)	296	58	~1092	30	161
Queue Length 95th (ft)	#410	105	#1229	m24	m95
Internal Link Dist (ft)	1091		2024		1031
Turn Bay Length (ft)		72		175	
Base Capacity (vph)	565	547	1639	250	2278
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.87	0.37	1.44	0.68	0.75

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 110
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Route 314 (Eastern Leg) & Route 611



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	12	12
Grade (%)	4%			7%	-6%	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1587	1420	1708	3415	3582	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1587	1420	1708	3415	3582	
Volume (vph)	44	197	401	1673	1363	73
Peak-hour factor, PHF	0.67	0.67	0.95	0.95	0.76	0.76
Adj. Flow (vph)	66	294	422	1761	1793	96
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	66	294	422	1761	1889	0
Heavy Vehicles (%)	4%	4%	2%	2%	3%	3%
Turn Type		Perm	Prot			
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	16.0	16.0	20.0	72.0	46.0	
Effective Green, g (s)	18.0	18.0	22.0	74.0	48.0	
Actuated g/C Ratio	0.18	0.18	0.22	0.74	0.48	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	286	256	376	2527	1719	
v/s Ratio Prot	0.04		c0.25	0.52	c0.53	
v/s Ratio Perm		c0.21				
v/c Ratio	0.23	1.15	1.12	0.70	1.10	
Uniform Delay, d1	35.1	41.0	39.0	7.0	26.0	
Progression Factor	1.00	1.00	0.64	2.51	1.00	
Incremental Delay, d2	0.4	102.3	58.8	0.1	54.1	
Delay (s)	35.5	143.3	83.7	17.7	80.1	
Level of Service	D	F	F	B	F	
Approach Delay (s)	123.5			30.5	80.1	
Approach LOS	F			C	F	

Intersection Summary			
HCM Average Control Delay	59.2	HCM Level of Service	E
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Volume (vph)	44	197	401	1673	1363
Lane Group Flow (vph)	66	294	422	1761	1889
Turn Type		Perm	Prot		
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phases	4	4	5	2	6
Minimum Initial (s)	7.0	7.0	7.0	15.0	15.0
Minimum Split (s)	13.0	13.0	13.0	21.0	21.0
Total Split (s)	22.0	22.0	26.0	78.0	52.0
Total Split (%)	22.0%	22.0%	26.0%	78.0%	52.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Min	C-Min
v/c Ratio	0.23	1.15	1.12	0.70	1.10
Control Delay	37.6	141.0	86.0	18.3	80.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	37.6	141.0	86.0	18.3	80.7
Queue Length 50th (ft)	36	~222	~304	626	~722
Queue Length 95th (ft)	55	#243	m165	m407	#633
Internal Link Dist (ft)	3880			1031	2203
Turn Bay Length (ft)	50		143		
Base Capacity (vph)	286	256	376	2527	1719
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.23	1.15	1.12	0.70	1.10

Intersection Summary

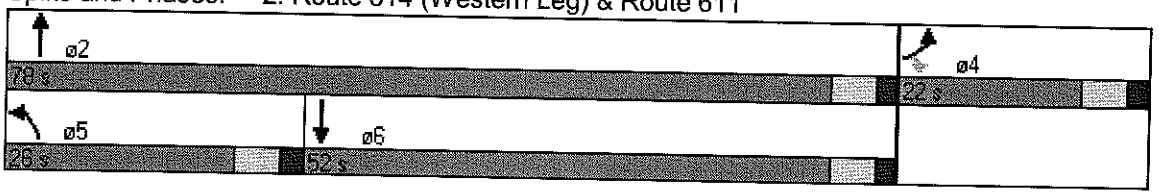
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 61 (61%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Route 314 (Western Leg) & Route 611



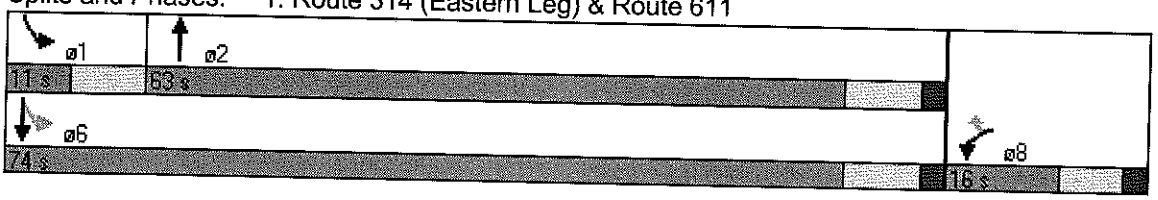
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	13	12	11	11	11	12
Grade (%)	-6%		-2%			-5%
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1883	1631	3389		1753	3628
Flt Permitted	0.95	1.00	1.00		0.06	1.00
Satd. Flow (perm)	1883	1631	3389		115	3628
Volume (vph)	172	75	1786	261	79	1477
Peak-hour factor, PHF	0.90	0.90	0.94	0.94	0.94	0.94
Adj. Flow (vph)	191	83	1900	278	84	1571
RTOR Reduction (vph)	0	68	0	0	0	0
Lane Group Flow (vph)	191	15	2178	0	84	1571
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Actuated Green, G (s)	9.0	9.0	56.0		66.0	66.0
Effective Green, g (s)	12.0	12.0	60.0		70.0	70.0
Actuated g/C Ratio	0.13	0.13	0.67		0.78	0.78
Clearance Time (s)	7.0	7.0	8.0		6.0	8.0
Vehicle Extension (s)	3.0	3.0	6.0		3.0	6.0
Lane Grp Cap (vph)	251	217	2259		199	2822
v/s Ratio Prot	c0.10		c0.64		0.03	c0.43
v/s Ratio Perm		0.01			0.30	
v/c Ratio	0.76	0.07	0.96		0.42	0.56
Uniform Delay, d1	37.6	34.1	14.0		20.0	3.9
Progression Factor	1.00	1.00	1.00		2.25	0.97
Incremental Delay, d2	12.7	0.1	12.2		0.9	0.5
Delay (s)	50.4	34.3	26.2		46.0	4.3
Level of Service	D	C	C		D	A
Approach Delay (s)	45.5		26.2			6.4
Approach LOS	D		C			A

Intersection Summary			
HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	172	75	1786	79	1477
Lane Group Flow (vph)	191	83	2178	84	1571
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phases	8	8	2	1	6
Minimum Initial (s)	1.0	1.0	15.0	1.0	15.0
Minimum Split (s)	8.0	8.0	23.0	7.0	23.0
Total Split (s)	16.0	16.0	63.0	11.0	74.0
Total Split (%)	17.8%	17.8%	70.0%	12.2%	82.2%
Yellow Time (s)	5.0	5.0	6.0	6.0	6.0
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min
v/c Ratio	0.76	0.29	0.94	0.39	0.56
Control Delay	58.4	12.7	24.6	17.2	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	58.4	12.7	24.6	17.2	4.4
Queue Length 50th (ft)	106	3	557	21	86
Queue Length 95th (ft)	#211	43	#809	m36	198
Internal Link Dist (ft)	1091		2024		1031
Turn Bay Length (ft)		72		175	
Base Capacity (vph)	251	285	2305	218	2822
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.76	0.29	0.94	0.39	0.56

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Route 314 (Eastern Leg) & Route 611



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	12	12
Grade (%)	4%			7%	-6%	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1587	1420	1708	3415	3627	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1587	1420	1708	3415	3627	
Volume (vph)	54	160	187	1674	1396	48
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.97	0.97
Adj. Flow (vph)	56	167	195	1744	1439	49
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	56	167	195	1744	1488	0
Heavy Vehicles (%)	4%	4%	2%	2%	2%	2%
Turn Type		Perm	Prot			
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	13.4	13.4	13.0	64.6	45.6	
Effective Green, g (s)	15.4	15.4	15.0	66.6	47.6	
Actuated g/C Ratio	0.17	0.17	0.17	0.74	0.53	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	272	243	285	2527	1918	
v/s Ratio Prot	0.04		0.11	c0.51	c0.41	
v/s Ratio Perm		c0.12				
v/c Ratio	0.21	0.69	0.68	0.69	0.78	
Uniform Delay, d1	32.0	35.0	35.3	6.2	16.9	
Progression Factor	1.00	1.00	1.14	0.98	1.00	
Incremental Delay, d2	0.4	7.8	2.6	0.6	3.1	
Delay (s)	32.4	42.9	43.0	6.7	20.1	
Level of Service	C	D	D	A	C	
Approach Delay (s)	40.2			10.3	20.1	
Approach LOS	D			B	C	

Intersection Summary			
HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Volume (vph)	54	160	187	1674	1396
Lane Group Flow (vph)	56	167	195	1744	1488
Turn Type		Perm	Prot		
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phases	4	4	5	2	6
Minimum Initial (s)	7.0	7.0	7.0	15.0	15.0
Minimum Split (s)	13.0	13.0	13.0	21.0	21.0
Total Split (s)	21.0	21.0	20.0	69.0	49.0
Total Split (%)	23.3%	23.3%	22.2%	76.7%	54.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Min	C-Min
v/c Ratio	0.21	0.69	0.68	0.69	0.78
Control Delay	33.2	49.9	45.7	7.2	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	49.9	45.7	7.2	21.3
Queue Length 50th (ft)	27	88	121	186	360
Queue Length 95th (ft)	61	#158	m131	m213	456
Internal Link Dist (ft)	3880			1031	2203
Turn Bay Length (ft)	50		143		
Base Capacity (vph)	300	268	304	2526	1917
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.19	0.62	0.64	0.69	0.78

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 11 (12%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Route 314 (Western Leg) & Route 611