

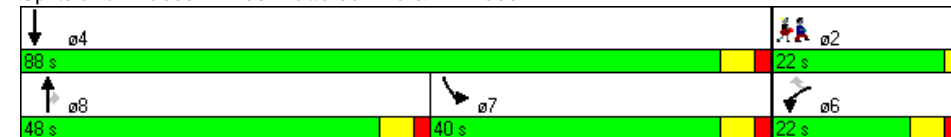
Timings
198: Patterson Rd & FM 1960

2019 AM
Baseline

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations	↘	↗	↑↑↑	↗	↘	↑↑↑	
Volume (vph)	118	441	1644	151	458	2309	
Turn Type	Perm		Perm		Prot		
Protected Phases	6		8		7	4	2
Permitted Phases	6	6		8			
Detector Phases	6	6	8	8	7	4	
Minimum Initial (s)	5.0	5.0	7.0	7.0	3.0	7.0	4.0
Minimum Split (s)	20.0	20.0	40.0	40.0	20.0	60.0	20.0
Total Split (s)	22.0	22.0	48.0	48.0	40.0	88.0	22.0
Total Split (%)	20.0%	20.0%	43.6%	43.6%	36.4%	80.0%	20%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0
Lead/Lag			Lead	Lead	Lag		
Lead-Lag Optimize?			Yes	Yes	Yes		
Recall Mode	None	None	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	15.0	15.0	47.0	47.0	36.0	87.0	
Actuated g/C Ratio	0.14	0.14	0.43	0.43	0.33	0.79	
v/c Ratio	0.53	0.76	0.82	0.22	0.86	0.62	
Control Delay	51.7	12.6	32.4	5.1	51.0	5.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	51.7	12.6	32.4	5.1	51.0	5.9	
LOS	D	B	C	A	D	A	
Approach Delay	20.8		30.1		13.4		
Approach LOS	C		C		B		

Intersection Summary	
Cycle Length:	110
Actuated Cycle Length:	110
Offset:	0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.86
Intersection Signal Delay:	20.0
Intersection Capacity Utilization:	73.7%
Analysis Period (min):	15
Intersection LOS:	C
ICU Level of Service:	D

Splits and Phases: 198: Patterson Rd & FM 1960



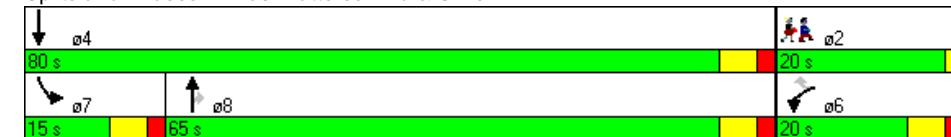
Timings
198: Patterson Rd & SH 6

2019 PM
Baseline

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations	↘	↗	↑↑↑	↗	↘	↑↑↑	
Volume (vph)	221	274	3120	43	38	1256	
Turn Type	Perm		Perm		Prot		
Protected Phases	6		8		7	4	2
Permitted Phases	6	6		8			
Detector Phases	6	6	8	8	7	4	
Minimum Initial (s)	5.0	5.0	7.0	7.0	3.0	7.0	5.0
Minimum Split (s)	20.0	20.0	55.0	55.0	15.0	70.0	20.0
Total Split (s)	20.0	20.0	65.0	65.0	15.0	80.0	20.0
Total Split (%)	20.0%	20.0%	65.0%	65.0%	15.0%	80.0%	20%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.0
Lead/Lag			Lag	Lag	Lead		
Lead-Lag Optimize?			Yes	Yes	Yes		
Recall Mode	None	None	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	15.9	15.9	67.4	67.4	9.5	76.1	
Actuated g/C Ratio	0.16	0.16	0.67	0.67	0.10	0.76	
v/c Ratio	0.85	0.80	0.99	0.04	0.24	0.35	
Control Delay	68.6	37.6	31.4	3.4	45.1	4.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	68.6	37.6	31.4	3.4	45.1	4.2	
LOS	E	D	C	A	D	A	
Approach Delay	51.4		31.1		5.4		
Approach LOS	D		C		A		

Intersection Summary	
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green
Natural Cycle:	120
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.99
Intersection Signal Delay:	26.4
Intersection Capacity Utilization:	83.9%
Analysis Period (min):	15
Intersection LOS:	C
ICU Level of Service:	E

Splits and Phases: 198: Patterson Rd & SH 6



Timings
318: Pine Forest Dr & FM 1960

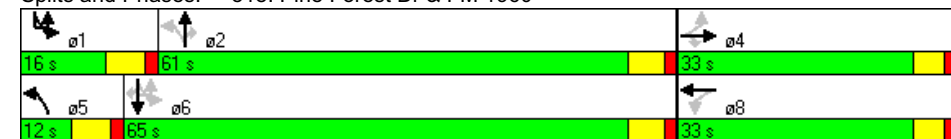
2019 AM
Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↖	↗	↘	↖	↗	↘	↖
Volume (vph)	168	52	776	15	15	103	1191	15	142	7	2548	10
Turn Type	Perm	Perm	Perm	Perm	pm+pt	pm+pt	Perm	pm+pt	pm+pt	pm+pt	Perm	Perm
Protected Phases		4			8	5	2		1	1	6	
Permitted Phases	4		4	8		2		2	6	6		6
Detector Phases	4	4	4	8	8	5	2	2	1	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	12.0	32.0	32.0	12.0	12.0	32.0	32.0
Total Split (s)	33.0	33.0	33.0	33.0	33.0	12.0	61.0	61.0	16.0	16.0	65.0	65.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	10.9%	55.5%	55.5%	14.5%	14.5%	59.1%	59.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min
Act Effct Green (s)	29.0	29.0	29.0		29.0	66.1	58.1	58.1		71.9	61.0	61.0
Actuated g/C Ratio	0.26	0.26	0.26		0.26	0.60	0.53	0.53		0.65	0.55	0.55
v/c Ratio	0.49	0.99	0.89		0.22	0.57	0.48	0.02		0.51	0.98	0.01
Control Delay	39.4	70.2	50.7		26.0	27.8	17.3	5.7		12.7	37.7	6.5
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	39.4	70.2	50.7		26.0	27.8	17.3	5.7		12.7	37.7	6.5
LOS	D	E	D		C	C	B	A		B	D	A
Approach Delay		57.4			26.0		18.0				36.2	
Approach LOS		E			C		B				D	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 35.6
 Intersection Capacity Utilization 94.6%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service F

Splits and Phases: 318: Pine Forest Dr & FM 1960



Timings
318: Pine Forest Dr & SH 6

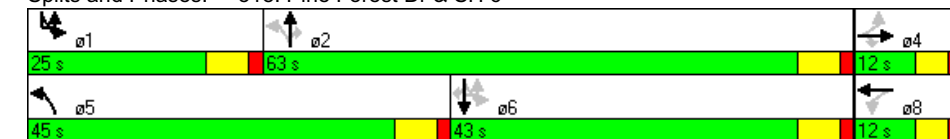
2019 PM
Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↖	↗	↘	↖	↗	↘	↖
Volume (vph)	17	9	152	22	15	543	2333	49	283	4	1008	16
Turn Type	Perm	Perm	Perm	Perm	pm+pt	pm+pt	Perm	pm+pt	pm+pt	pm+pt	Perm	Perm
Protected Phases		4			8	5	2		1	1	6	
Permitted Phases	4		4	8		2		2	6	6		6
Detector Phases	4	4	4	8	8	5	2	2	1	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	12.0	32.0	32.0	12.0	12.0	32.0	32.0
Total Split (s)	12.0	12.0	12.0	12.0	12.0	45.0	63.0	63.0	25.0	25.0	43.0	43.0
Total Split (%)	12.0%	12.0%	12.0%	12.0%	12.0%	45.0%	63.0%	63.0%	25.0%	25.0%	43.0%	43.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min
Act Effct Green (s)	7.8	7.8	7.8		7.8	84.2	61.8	61.8		68.8	50.4	50.4
Actuated g/C Ratio	0.08	0.08	0.08		0.08	0.84	0.62	0.62		0.69	0.50	0.50
v/c Ratio	0.15	0.47	0.43		0.45	0.87	0.81	0.05		0.74	0.43	0.02
Control Delay	46.0	20.9	17.3		55.2	32.3	17.8	2.7		34.3	17.9	8.2
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	46.0	20.9	17.3		55.2	32.3	17.8	2.7		34.3	17.9	8.2
LOS	D	C	B		E	C	B	A		C	B	A
Approach Delay		21.7			55.2		20.2				21.4	
Approach LOS		C			E		C				C	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 21.0
 Intersection Capacity Utilization 80.0%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 318: Pine Forest Dr & SH 6



Timings
355: Clay Rd & FM 1960

2019 AM
Baseline

	→	↘	←	↙	↑	↗	↓	↖
Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↑↑	↑	↑↑	↑	↑↑↑	↑	↑↑↑	↑
Volume (vph)	1498	188	437	362	918	295	2780	540
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases	4	8		2		6		
Permitted Phases	4		8		2		6	
Detector Phases	4	4	8	8	2	2	6	6
Minimum Initial (s)	13.0	13.0	7.5	7.5	15.5	15.5	19.5	19.5
Minimum Split (s)	31.0	31.0	13.0	13.0	23.0	23.0	25.0	25.0
Total Split (s)	49.0	49.0	49.0	49.0	61.0	61.0	61.0	61.0
Total Split (%)	44.5%	44.5%	44.5%	44.5%	55.5%	55.5%	55.5%	55.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0
Lead/Lag	Lead-Lag Optimize?							
Recall Mode	None	None	Max	Max	Min	Min	Min	Min
Act Effct Green (s)	45.0	45.0	45.0	45.0	57.0	57.0	57.0	57.0
Actuated g/C Ratio	0.41	0.41	0.41	0.41	0.52	0.52	0.52	0.52
v/c Ratio	1.12	0.31	0.33	0.56	0.38	0.39	1.15	0.63
Control Delay	97.2	23.8	23.0	22.9	16.4	17.6	97.9	14.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.2	23.8	23.0	22.9	16.4	17.6	97.9	14.0
LOS	F	C	C	C	B	B	F	B
Approach Delay	89.1		23.0		16.7		84.2	
Approach LOS	F		C		B		F	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Natural Cycle: 120
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 1.15
 Intersection Signal Delay: 66.8
 Intersection LOS: E
 Intersection Capacity Utilization 101.8%
 ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 355: Clay Rd & FM 1960



Timings
355: Clay Rd & SH 6

2019 PM
Baseline

	→	↘	←	↙	↑	↗	↓	↖
Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↑↑	↑	↑↑	↑	↑↑↑	↑	↑↑↑	↑
Volume (vph)	845	221	1037	635	2639	321	1503	623
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases	4	8		2		6		
Permitted Phases	4		8		2		6	
Detector Phases	4	4	8	8	2	2	6	6
Minimum Initial (s)	13.0	13.0	7.5	7.5	15.5	15.5	19.5	19.5
Minimum Split (s)	31.0	31.0	13.0	13.0	23.0	23.0	25.0	25.0
Total Split (s)	44.0	44.0	44.0	44.0	56.0	56.0	56.0	56.0
Total Split (%)	44.0%	44.0%	44.0%	44.0%	56.0%	56.0%	56.0%	56.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0
Lead/Lag	Lead-Lag Optimize?							
Recall Mode	None	None	Max	Max	Min	Min	Min	Min
Act Effct Green (s)	40.0	40.0	40.0	40.0	52.0	52.0	52.0	52.0
Actuated g/C Ratio	0.40	0.40	0.40	0.40	0.52	0.52	0.52	0.52
v/c Ratio	0.65	0.37	0.80	1.09	1.08	0.41	0.62	0.81
Control Delay	27.0	21.9	31.6	93.2	70.3	14.1	18.3	28.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.0	21.9	31.6	93.2	70.3	14.1	18.3	28.7
LOS	C	C	C	F	E	B	B	C
Approach Delay	25.9		55.0		64.2		21.3	
Approach LOS	C		D		E		C	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Natural Cycle: 110
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 1.09
 Intersection Signal Delay: 45.4
 Intersection LOS: D
 Intersection Capacity Utilization 97.0%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 355: Clay Rd & SH 6



Timings
390: Cairnway Dr & FM 1960

2019 AM
Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	131	110	141	108	34	49	211	11	1051	47	112	87
Turn Type	Prot		Perm	Prot		Perm	pm+pt	pm+pt		Perm	pm+pt	pm+pt
Protected Phases	7	4		3	8		5	5	2		1	1
Permitted Phases			4			8	2	2		2	6	6
Detector Phases	7	4	4	3	8	8	5	5	2	2	1	1
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	17.0	17.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	25.5	25.5	11.0	11.0
Total Split (s)	13.0	13.0	13.0	11.0	11.0	11.0	15.0	15.0	69.0	69.0	17.0	17.0
Total Split (%)	11.8%	11.8%	11.8%	10.0%	10.0%	10.0%	13.6%	13.6%	62.7%	62.7%	15.5%	15.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Min	Min	None	None
Act Effct Green (s)	11.2	9.0	9.0	7.0	7.0	7.0	78.1	67.1	67.1		77.9	
Actuated g/C Ratio	0.10	0.08	0.08	0.06	0.06	0.06	0.71	0.61	0.61		0.71	
v/c Ratio	0.79	0.79	1.02	1.04	0.32	0.36	0.98	0.37	0.05		0.55	
Control Delay	79.3	83.5	122.6	145.7	56.8	20.5	82.3	11.4	2.8		9.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Total Delay	79.3	83.5	122.6	145.7	56.8	20.5	82.3	11.4	2.8		9.6	
LOS	E	F	F	F	E	C		F	B		A	A
Approach Delay		96.5			97.8				23.0			
Approach LOS		F			F				C			

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Natural Cycle: 140
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.04
 Intersection Signal Delay: 44.4
 Intersection Capacity Utilization 97.0%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service F

Splits and Phases: 390: Cairnway Dr & FM 1960



Timings
423: Loch Katrine Ln & FM 1960

2019 AM
Baseline

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	47	12	38	6	42	9	1304	37	11	3075	27
Turn Type	Perm		Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8			2			6
Detector Phases	4	4	8	8	8	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	26.0	26.0	11.0	26.0	26.0
Total Split (s)	15.0	15.0	15.0	15.0	15.0	11.0	79.0	79.0	16.0	84.0	84.0
Total Split (%)	13.6%	13.6%	13.6%	13.6%	13.6%	10.0%	71.8%	71.8%	14.5%	76.4%	76.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)		10.1		10.1	10.1	7.0	76.7	76.7	11.2	83.1	83.1
Actuated g/C Ratio		0.09		0.09	0.09	0.06	0.70	0.70	0.10	0.76	0.76
v/c Ratio		0.65		0.43	0.25	0.42	0.40	0.04	0.57	0.87	0.02
Control Delay		59.2		59.0	16.8	61.7	7.6	1.9	59.1	14.1	2.3
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		59.2		59.0	16.8	61.7	7.6	1.9	59.1	14.1	2.3
LOS		E		E	B	E	A	A	E	B	A
Approach Delay		59.2		38.4			9.1			15.3	
Approach LOS		E		D			A			B	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 14.8
 Intersection Capacity Utilization 85.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service E

Splits and Phases: 423: Loch Katrine Ln & FM 1960



Timings
390: Cairnway Dr & SH 6

2019 PM
Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	80	32	51	130	83	196	54	2471	133	94	1406	96
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phases	7	4	4	3	8	8	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	17.0	17.0	5.0	17.0	17.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	25.5	25.5	11.0	27.5	27.5
Total Split (s)	11.0	12.0	12.0	13.0	14.0	14.0	34.0	59.0	59.0	16.0	41.0	41.0
Total Split (%)	11.0%	12.0%	12.0%	13.0%	14.0%	14.0%	34.0%	59.0%	59.0%	16.0%	41.0%	41.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	7.0	7.8	7.8	9.3	10.0	10.0	27.7	55.1	55.1	12.0	39.4	39.4
Actuated g/C Ratio	0.07	0.08	0.08	0.10	0.10	0.10	0.28	0.56	0.56	0.12	0.40	0.40
v/c Ratio	0.70	0.24	0.32	0.84	0.47	0.93	0.88	0.94	0.15	0.97	0.75	0.15
Control Delay	75.2	47.6	17.4	83.6	51.3	73.7	53.7	28.4	3.0	98.1	28.9	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.2	47.6	17.4	83.6	51.3	73.7	53.7	28.4	3.0	98.1	28.9	4.9
LOS	E	D	B	F	D	E	D	C	A	F	C	A
Approach Delay		51.8			72.3			30.7				35.5
Approach LOS		D			E			C				D

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 97.8
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 36.1 Intersection LOS: D
 Intersection Capacity Utilization 88.3% ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 390: Cairnway Dr & SH 6



Timings
423: Loch Katrine Ln & SH 6

2019 PM
Baseline

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	99	12	59	30	95	42	2946	69	33	1701	3
Turn Type	Perm		Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8			2			6
Detector Phases	4	4	8	8	8	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	26.0	26.0	11.0	26.0	26.0
Total Split (s)	16.0	16.0	16.0	16.0	16.0	18.0	68.0	68.0	16.0	66.0	66.0
Total Split (%)	16.0%	16.0%	16.0%	16.0%	16.0%	18.0%	68.0%	68.0%	16.0%	66.0%	66.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag						Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)		12.0		12.0	12.0	12.6	64.0	64.0	12.0	63.4	63.4
Actuated g/C Ratio		0.12		0.12	0.12	0.13	0.64	0.64	0.12	0.63	0.63
v/c Ratio		0.97		0.56	0.48	0.58	0.98	0.07	0.95	0.57	0.00
Control Delay		109.8		54.7	37.8	51.8	30.7	3.5	95.1	11.6	5.0
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		109.8		54.7	37.8	51.8	30.7	3.5	95.1	11.6	5.0
LOS		F		D	D	D	C	A	F	B	A
Approach Delay		109.8		46.0			30.9			19.8	
Approach LOS		F		D			C			B	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 29.5 Intersection LOS: C
 Intersection Capacity Utilization 94.0% ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 423: Loch Katrine Ln & SH 6



Timings
444: Kieth Harrow Blvd & FM 1960

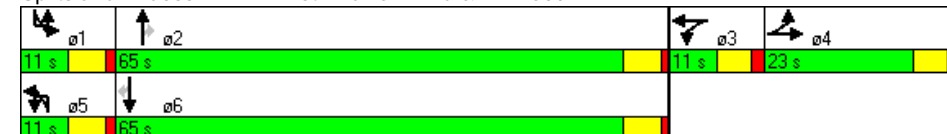
2019 AM
Baseline

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	339	40	22	74	1110	9	27	2578	134
Turn Type	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4	3	5	2		1		6
Permitted Phases						2			6
Detector Phases	4	4	3	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	1.0	5.0	17.0	17.0	5.0	17.0	17.0
Minimum Split (s)	11.0	11.0	11.0	11.0	23.0	23.0	11.0	23.0	23.0
Total Split (s)	23.0	23.0	11.0	11.0	65.0	65.0	11.0	65.0	65.0
Total Split (%)	20.9%	20.9%	10.0%	10.0%	59.1%	59.1%	10.0%	59.1%	59.1%
Yellow Time (s)	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	19.0	19.0	7.0	7.0	63.2	63.2	7.0	61.0	61.0
Actuated g/C Ratio	0.17	0.17	0.06	0.06	0.57	0.57	0.06	0.55	0.55
v/c Ratio	1.03	1.46dr	0.51	1.03dl	0.41	0.01	0.26	0.99	0.16
Control Delay	108.0	84.3	30.6	91.3	14.0	5.7	52.3	40.3	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	108.0	84.3	30.6	91.3	14.0	5.7	52.3	40.3	3.8
LOS	F	F	C	F	B	A	D	D	A
Approach Delay		92.3	30.6		24.7			38.7	
Approach LOS		F	C		C			D	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Natural Cycle: 110
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 43.3 Intersection LOS: D
 Intersection Capacity Utilization 88.2% ICU Level of Service E
 Analysis Period (min) 15
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 444: Kieth Harrow Blvd & FM 1960



Timings
444: Kieth Harrow Blvd & SH 6

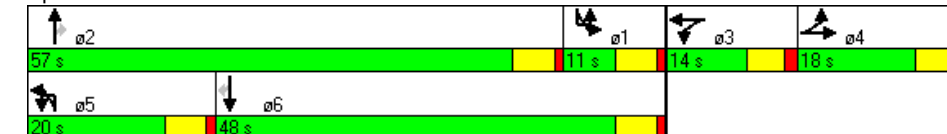
2019 PM
Baseline

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	301	67	122	274	2296	40	85	1492	267
Turn Type	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4	3	5	2		1		6
Permitted Phases						2			6
Detector Phases	4	4	3	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	1.0	5.0	17.0	17.0	5.0	17.0	17.0
Minimum Split (s)	11.0	11.0	11.0	11.0	23.0	23.0	11.0	23.0	23.0
Total Split (s)	18.0	18.0	14.0	20.0	57.0	57.0	11.0	48.0	48.0
Total Split (%)	18.0%	18.0%	14.0%	20.0%	57.0%	57.0%	11.0%	48.0%	48.0%
Yellow Time (s)	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	13.8	13.8	10.0	16.0	53.0	53.0	7.0	44.0	44.0
Actuated g/C Ratio	0.14	0.14	0.10	0.16	0.53	0.53	0.07	0.44	0.44
v/c Ratio	0.83	0.81	0.87	0.84	0.92	0.05	0.71	0.72	0.34
Control Delay	72.6	44.5	65.0	56.0	29.0	4.2	62.3	25.3	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.6	44.5	65.0	56.0	29.0	4.2	62.3	25.3	3.2
LOS	E	D	E	E	C	A	E	C	A
Approach Delay		53.1	65.0		32.8			25.2	
Approach LOS		D	E		C			C	

Intersection Summary


Cycle Length: 100
 Actuated Cycle Length: 99.8
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 33.9 Intersection LOS: C
 Intersection Capacity Utilization 82.0% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 444: Kieth Harrow Blvd & SH 6



Timings
498: Timber Creek PI Ln & FM 1960

2019 AM
Baseline



Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↔		↔		↔	↔	↔			↔	↔
Volume (vph)	67	23	108	11	122	30	1357	40	29	45	2577	27
Turn Type	Perm		Perm		D.P+P	D.P+P		Perm	D.P+P	D.P+P		Perm
Protected Phases		4		8	5	5	2		1	1	6	
Permitted Phases	4		8		6	6		2	2	2		6
Detector Phases	4	4	8	8	5	5	2	2	1	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	26.0	26.0	11.0	11.0	26.0	26.0
Total Split (s)	17.0	17.0	17.0	17.0	17.0	17.0	82.0	82.0	11.0	11.0	76.0	76.0
Total Split (%)	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%	74.5%	74.5%	10.0%	10.0%	69.1%	69.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	None	Min	Min
Act Effct Green (s)		12.0		12.0		79.1	74.8	74.8		79.8	67.9	67.9
Actuated g/C Ratio		0.12		0.12		0.77	0.72	0.72		0.76	0.66	0.66
v/c Ratio		0.67		0.62		0.64	0.40	0.04		0.26	0.84	0.03
Control Delay		50.3		37.7		34.4	6.4	1.5		4.4	16.8	2.4
Queue Delay		0.0		0.0		0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		50.3		37.7		34.4	6.4	1.5		4.4	16.8	2.4
LOS		D		D		C	A	A		A	B	A
Approach Delay		50.3		37.7		9.0					16.3	
Approach LOS		D		D		A					B	

Intersection Summary

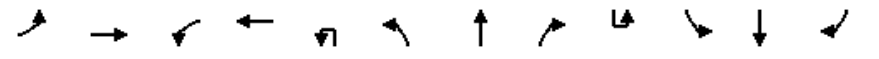
Cycle Length: 110
 Actuated Cycle Length: 103.3
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 16.1
 Intersection LOS: B
 Intersection Capacity Utilization 80.9%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 498: Timber Creek PI Ln & FM 1960



Timings
498: Timber Creek PI Ln & SH 6

2019 PM
Baseline



Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↔		↔		↔	↔	↔			↔	↔
Volume (vph)	55	9	117	30	235	121	2316	125	47	109	1610	73
Turn Type	Perm		Perm		D.P+P	D.P+P		Perm	D.P+P	D.P+P		Perm
Protected Phases		4		8	5	5	2		1	1	6	
Permitted Phases	4		8		6	6		2	2	2		6
Detector Phases	4	4	8	8	5	5	2	2	1	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	26.0	26.0	11.0	11.0	26.0	26.0
Total Split (s)	18.0	18.0	18.0	18.0	33.0	33.0	64.0	64.0	18.0	18.0	49.0	49.0
Total Split (%)	18.0%	18.0%	18.0%	18.0%	33.0%	33.0%	64.0%	64.0%	18.0%	18.0%	49.0%	49.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	None	Min	Min
Act Effct Green (s)		11.6		11.6		66.3	55.2	55.2		66.3	45.3	45.3
Actuated g/C Ratio		0.13		0.13		0.74	0.61	0.61		0.74	0.50	0.50
v/c Ratio		0.38		0.63		0.78	0.81	0.13		0.57	0.69	0.09
Control Delay		27.3		30.3		33.2	16.5	1.9		25.5	20.1	4.1
Queue Delay		0.0		0.0		0.0	0.0	0.0		0.0	0.0	0.0
Total Delay		27.3		30.3		33.2	16.5	1.9		25.5	20.1	4.1
LOS		C		C		C	B	A		C	C	A
Approach Delay		27.3		30.3		18.0					20.0	
Approach LOS		C		C		B					B	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 90.2
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 19.5
 Intersection LOS: B
 Intersection Capacity Utilization 78.3%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 498: Timber Creek PI Ln & SH 6



Timings
572: Little York Rd & FM 1960

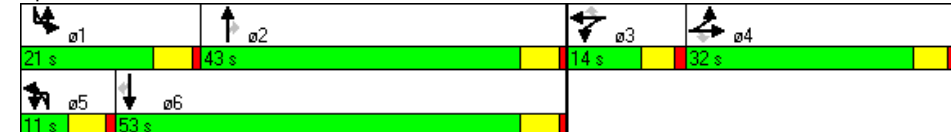
2019 AM
Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔↔↔	↔	↔↔	↔↔↔	↔	↔↔	↔↔↔	↔	↔↔	↔↔↔	↔
Volume (vph)	707	1006	90	216	261	131	89	1222	194	297	1907	327
Turn Type	Split	Perm	Split	Perm	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases			4			3			2			6
Detector Phases	4	4	4	3	3	3	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	13.0	13.0	5.0	13.0	13.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	19.0	19.0	11.0	19.0	19.0
Total Split (s)	32.0	32.0	32.0	14.0	14.0	14.0	11.0	43.0	43.0	21.0	53.0	53.0
Total Split (%)	29.1%	29.1%	29.1%	12.7%	12.7%	12.7%	10.0%	39.1%	39.1%	19.1%	48.2%	48.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	28.0	28.0	28.0	10.0	10.0	10.0	7.0	40.1	40.1	15.9	49.0	49.0
Actuated g/C Ratio	0.25	0.25	0.25	0.09	0.09	0.09	0.06	0.36	0.36	0.14	0.45	0.45
v/c Ratio	0.88	0.84	0.21	0.75	0.61	0.52	0.48	0.72	0.30	0.67	0.92	0.41
Control Delay	52.1	46.1	7.7	64.8	54.4	15.2	57.5	32.9	4.6	51.5	36.2	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	46.1	7.7	64.8	54.4	15.2	57.5	32.9	4.6	51.5	36.2	5.1
LOS	D	D	A	E	D	B	E	C	A	D	D	A
Approach Delay		46.6			49.7			30.8			34.0	
Approach LOS		D			D			C			C	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 38.2
 Intersection LOS: D
 Intersection Capacity Utilization 79.9%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 572: Little York Rd & FM 1960



Timings
572: Little York Rd & SH 6

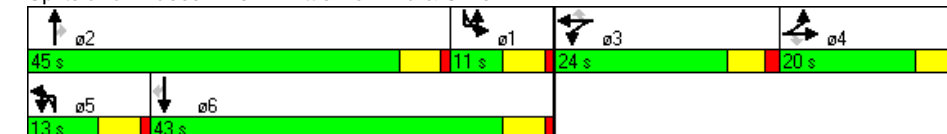
2019 PM
Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔↔	↔	↔	↔↔↔	↔	↔↔	↔↔↔	↔	↔↔	↔↔↔	↔
Volume (vph)	427	311	105	320	734	238	163	1791	183	133	1359	511
Turn Type	Split	Perm	Split	Perm	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases			4			3			2			6
Detector Phases	4	4	4	3	3	3	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	13.0	13.0	5.0	13.0	13.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	19.0	19.0	11.0	19.0	19.0
Total Split (s)	20.0	20.0	20.0	24.0	24.0	24.0	13.0	45.0	45.0	11.0	43.0	43.0
Total Split (%)	20.0%	20.0%	20.0%	24.0%	24.0%	24.0%	13.0%	45.0%	45.0%	11.0%	43.0%	43.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	16.0	16.0	16.0	20.0	20.0	20.0	9.0	41.0	41.0	7.0	39.0	39.0
Actuated g/C Ratio	0.16	0.16	0.16	0.20	0.20	0.20	0.09	0.41	0.41	0.07	0.39	0.39
v/c Ratio	0.95	0.86dl	0.33	0.90	0.91	0.65	0.74	0.93	0.26	0.64	0.74	0.64
Control Delay	89.6	47.4	11.9	72.8	53.8	30.8	59.8	38.0	4.4	58.2	29.1	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.6	47.4	11.9	72.8	53.8	30.8	59.8	38.0	4.4	58.2	29.1	10.2
LOS	F	D	B	E	D	C	E	D	A	E	C	B
Approach Delay		53.7			53.3			37.3			26.3	
Approach LOS		D			D			D			C	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 39.3
 Intersection LOS: D
 Intersection Capacity Utilization 79.4%
 ICU Level of Service D
 Analysis Period (min) 15
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 572: Little York Rd & SH 6



Timings
624: Smithstone Dr & FM 1960

2019 AM
Baseline

Lane Group	EBL	EBT	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↖	↗	↔		↖	↗	↔	↖	↗	↔	↖
Volume (vph)	16	8	0	92	132	2149	10	77	2	1957	10
Turn Type	Perm			pm+pt	pm+pt		Perm	pm+pt	pm+pt		Perm
Protected Phases		4	8	5	5	2		1	1	6	
Permitted Phases	4			2	2		2	6	6		6
Detector Phases	4	4	8	5	5	2	2	1	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	12.0	12.0	27.0	27.0	12.0	12.0	27.0	27.0
Total Split (s)	44.0	44.0	44.0	15.0	15.0	54.0	54.0	12.0	12.0	51.0	51.0
Total Split (%)	40.0%	40.0%	40.0%	13.6%	13.6%	49.1%	49.1%	10.9%	10.9%	46.4%	46.4%
Yellow Time (s)	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag				Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min
Act Effct Green (s)	40.0	40.0	40.0		61.2	52.4	52.4		55.0	47.0	47.0
Actuated g/C Ratio	0.36	0.36	0.36		0.56	0.48	0.48		0.50	0.43	0.43
v/c Ratio	0.03	1.01	0.01		0.99	0.96	0.01		0.44	0.98	0.02
Control Delay	22.9	73.1	0.0		84.4	40.7	10.5		20.5	46.2	10.8
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	22.9	73.1	0.0		84.4	40.7	10.5		20.5	46.2	10.8
LOS	C	E	A		F	D	B		C	D	B
Approach Delay		71.8	0.0			44.7				45.0	
Approach LOS		E	A			D				D	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 100 (91%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 47.9
 Intersection Capacity Utilization 95.4%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service F

Splits and Phases: 624: Smithstone Dr & FM 1960



Timings
624: Smithstone Dr & SH 6

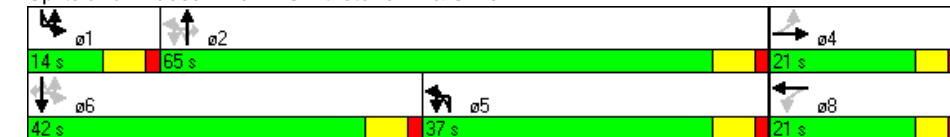
2019 PM
Baseline

Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↖	↗	↔	↔	↖	↗	↔	↔	↖	↗	↔	↖
Volume (vph)	56	22	11	8	243	264	2166	15	156	9	1522	28
Turn Type	Perm				pm+pt	pm+pt		Perm	pm+pt	pm+pt		Perm
Protected Phases		4			8	5	5	2		1	1	6
Permitted Phases	4			8	2	2		2	6	6		6
Detector Phases	4	4	8	8	5	5	2	2	1	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	12.0	12.0	27.0	27.0	12.0	12.0	27.0	27.0
Total Split (s)	21.0	21.0	21.0	21.0	37.0	37.0	65.0	65.0	14.0	14.0	42.0	42.0
Total Split (%)	21.0%	21.0%	21.0%	21.0%	37.0%	37.0%	65.0%	65.0%	14.0%	14.0%	42.0%	42.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag					Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min
Act Effct Green (s)	13.2	13.2		13.2		63.8	63.8		44.2	44.2	44.2	
Actuated g/C Ratio	0.13	0.13		0.13		0.64	0.64		0.44	0.44	0.44	
v/c Ratio	0.34	0.81		0.29		0.87	0.73		0.64	0.74	0.04	
Control Delay	43.0	30.1		32.0		43.8	14.4		31.2	26.9	7.2	
Queue Delay	0.0	0.0		0.0		0.0	0.2		0.0	0.0	0.0	
Total Delay	43.0	30.1		32.0		43.8	14.6		31.2	26.9	7.2	
LOS	D	C		C		D	B		C	C	A	
Approach Delay		32.1		32.0		20.0				27.0		
Approach LOS		C		C		C				C		

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 99 (99%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 23.5
 Intersection Capacity Utilization 86.0%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service E

Splits and Phases: 624: Smithstone Dr & SH 6

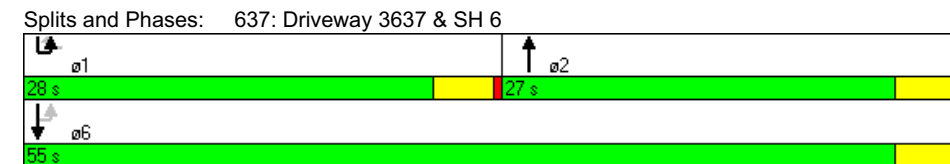


Timings
637: Driveway 3637 & SH 6

2019 AM
Baseline

Lane Group	WBR	NBT	SBU	SBT
Lane Configurations	↑	↑↑↑	↓	↑↑↑
Volume (vph)	47	1719	747	1857
Turn Type	custom	pm+pt		
Protected Phases		2	1	6
Permitted Phases	1		6	
Detector Phases	1	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0
Total Split (s)	28.0	27.0	28.0	55.0
Total Split (%)	50.9%	49.1%	50.9%	100.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	24.0	23.0	51.0	55.0
Actuated g/C Ratio	0.44	0.42	0.93	1.00
v/c Ratio	0.07	0.91	0.89	0.40
Control Delay	9.3	21.0	25.3	0.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.3	21.0	25.3	0.2
LOS	A	C	C	A
Approach Delay		21.0		7.4
Approach LOS		C		A

Intersection Summary
 Cycle Length: 55
 Actuated Cycle Length: 55
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
 Natural Cycle: 40
 Control Type: Pretimed
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 12.9
 Intersection Capacity Utilization 89.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service E

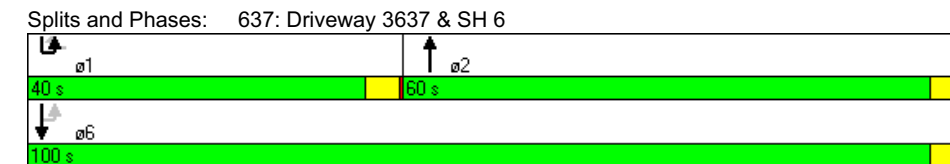


Timings
637: Driveway 3637 & SH 6

2019 PM
Baseline

Lane Group	WBR	NBT	SBU	SBT
Lane Configurations	↑	↑↑↑	↓	↑↑↑
Volume (vph)	95	2424	625	1975
Turn Type	custom	pm+pt		
Protected Phases		2	1	6
Permitted Phases	1		6	
Detector Phases	1	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0
Total Split (s)	40.0	60.0	40.0	100.0
Total Split (%)	40.0%	60.0%	40.0%	100.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	
Recall Mode	None	C-Min	None	C-Min
Act Effct Green (s)	35.1	56.9	96.0	100.0
Actuated g/C Ratio	0.35	0.57	0.96	1.00
v/c Ratio	0.18	0.95	0.97	0.42
Control Delay	22.9	20.6	55.5	0.3
Queue Delay	0.0	0.5	0.0	0.0
Total Delay	22.9	21.1	55.5	0.3
LOS	C	C	E	A
Approach Delay		21.1		13.5
Approach LOS		C		B

Intersection Summary
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 17.4
 Intersection Capacity Utilization 99.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service F



Timings
651: FM 529 & SH 6

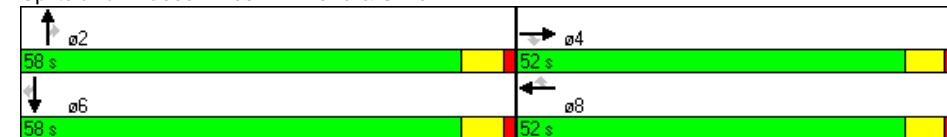
2019 AM
Baseline

	→	↘	←	↙	↑	↗	↓	↖
Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗
Volume (vph)	2200	557	679	469	2289	596	2441	292
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases	4		8		2		6	
Permitted Phases		4		8		2		6
Detector Phases	4	4	8	8	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	12.0	12.0	12.0	12.0
Minimum Split (s)	12.0	12.0	12.0	12.0	19.0	19.0	19.0	19.0
Total Split (s)	52.0	52.0	52.0	52.0	58.0	58.0	58.0	58.0
Total Split (%)	47.3%	47.3%	47.3%	47.3%	52.7%	52.7%	52.7%	52.7%
Yellow Time (s)	4.5	4.5	4.5	4.5	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	48.0	48.0	48.0	48.0	54.0	54.0	54.0	54.0
Actuated g/C Ratio	0.44	0.44	0.44	0.44	0.49	0.49	0.49	0.49
v/c Ratio	1.08	0.88	0.33	0.74	1.00	0.83	1.06	0.38
Control Delay	74.7	44.0	21.0	33.5	45.6	35.5	54.4	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0
Total Delay	74.7	44.0	21.0	33.5	45.6	35.5	64.5	4.7
LOS	E	D	C	C	D	D	E	A
Approach Delay	68.5		26.1		43.5		58.1	
Approach LOS	E		C		D		E	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 16 (15%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.08
 Intersection Signal Delay: 52.8
 Intersection Capacity Utilization 96.3%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service F

Splits and Phases: 651: FM 529 & SH 6



Timings
651: FM 529 & SH 6

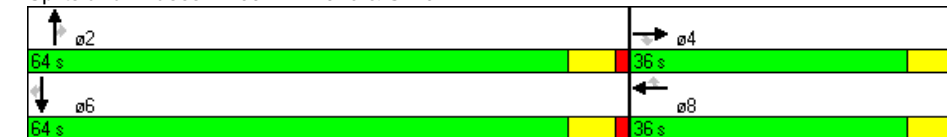
2019 PM
Baseline

	→	↘	←	↙	↑	↗	↓	↖
Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗
Volume (vph)	1089	500	1720	395	3170	309	2220	637
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases	4		8		2		6	
Permitted Phases		4		8		2		6
Detector Phases	4	4	8	8	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	12.0	12.0	12.0	12.0
Minimum Split (s)	12.0	12.0	12.0	12.0	19.0	19.0	19.0	19.0
Total Split (s)	36.0	36.0	36.0	36.0	64.0	64.0	64.0	64.0
Total Split (%)	36.0%	36.0%	36.0%	36.0%	64.0%	64.0%	64.0%	64.0%
Yellow Time (s)	4.5	4.5	4.5	4.5	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	32.0	32.0	32.0	32.0	60.0	60.0	60.0	60.0
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.60	0.60	0.60	0.60
v/c Ratio	0.73	1.07	1.15	0.85	1.13	0.35	0.79	0.73
Control Delay	33.3	93.0	107.4	48.9	84.8	11.2	7.2	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6
Total Delay	33.3	93.0	107.4	48.9	84.8	11.2	7.6	8.8
LOS	C	F	F	D	F	B	A	A
Approach Delay	52.1		96.5		78.3		7.9	
Approach LOS	D		F		E		A	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 94 (94%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.15
 Intersection Signal Delay: 57.9
 Intersection Capacity Utilization 101.1%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service G

Splits and Phases: 651: FM 529 & SH 6



Timings
664: Driveway 3664 & SH 6

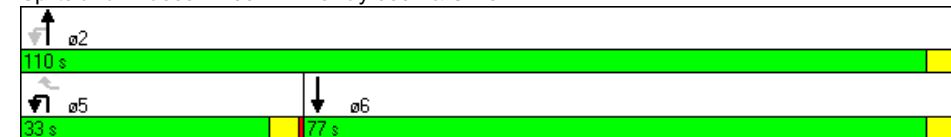
2019 AM
Baseline

Lane Group	WBR	NBU	NBT	SBT
Lane Configurations	↑	↓	↑↑	↑↑
Volume (vph)	23	252	2527	2523
Turn Type	custom	pm+pt		
Protected Phases		5	2	6
Permitted Phases	5	2		
Detector Phases	5	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	8.0	20.0	20.0
Total Split (s)	33.0	33.0	110.0	77.0
Total Split (%)	30.0%	30.0%	100.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	29.0	106.0	110.0	73.0
Actuated g/C Ratio	0.26	0.96	1.00	0.66
v/c Ratio	0.06	0.51	0.55	0.81
Control Delay	11.3	23.0	0.3	16.1
Queue Delay	0.0	0.0	0.0	1.7
Total Delay	11.3	23.0	0.3	17.8
LOS	B	C	A	B
Approach Delay			2.4	17.8
Approach LOS			A	B

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 1 (1%), Referenced to phase 2:NBTU and 6:SBT, Start of Green
 Natural Cycle: 50
 Control Type: Pretimed
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 9.7
 Intersection Capacity Utilization 69.4%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 664: Driveway 3664 & SH 6



Timings
664: Driveway 3664 & SH 6

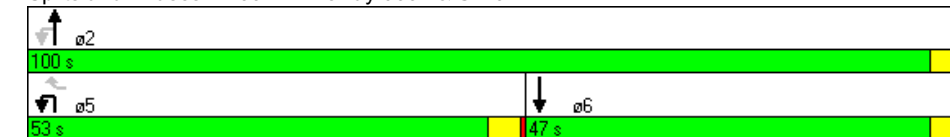
2019 PM
Baseline

Lane Group	WBR	NBU	NBT	SBT
Lane Configurations	↑	↓	↑↑	↑↑
Volume (vph)	95	893	2279	2052
Turn Type	custom	pm+pt		
Protected Phases		5	2	6
Permitted Phases	5	2		
Detector Phases	5	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	8.0	20.0	20.0
Total Split (s)	53.0	53.0	100.0	47.0
Total Split (%)	53.0%	53.0%	100.0%	47.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Recall Mode	None	None	C-Min	C-Min
Act Effct Green (s)	49.0	96.0	100.0	43.0
Actuated g/C Ratio	0.49	0.96	1.00	0.43
v/c Ratio	0.13	1.03	0.51	1.02
Control Delay	9.3	57.0	0.2	53.4
Queue Delay	0.0	35.7	0.0	0.0
Total Delay	9.3	92.7	0.2	53.4
LOS	A	F	A	D
Approach Delay			25.5	53.4
Approach LOS			C	D

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:NBTU and 6:SBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 35.8
 Intersection Capacity Utilization 95.8%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service F

Splits and Phases: 664: Driveway 3664 & SH 6



Timings
703: Ridge Park Dr & SH 6

2019 AM
Baseline

Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	77	15	18	4	29	15	2367	4	30	8	2204	22
Turn Type	Perm		Perm		D.P+P	D.P+P		Perm	D.P+P	D.P+P		Perm
Protected Phases		4		8	5	5	2		1	1	6	
Permitted Phases	4		8		6	6		2	2	2		6
Detector Phases	4	4	8	8	5	5	2	2	1	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	24.0	24.0	5.0	5.0	24.0	24.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	31.0	31.0	12.0	12.0	31.0	31.0
Total Split (s)	22.0	22.0	22.0	22.0	16.0	16.0	72.0	72.0	16.0	16.0	72.0	72.0
Total Split (%)	20.0%	20.0%	20.0%	20.0%	14.5%	14.5%	65.5%	65.5%	14.5%	14.5%	65.5%	65.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	None	Min	Min
Act Effct Green (s)	13.5	13.5	13.4	13.4	76.7	72.9	72.9		76.7	72.8	72.8	
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.74	0.73	0.73		0.74	0.73	0.73	
v/c Ratio	0.46	0.25	0.11	0.09	0.22	0.69	0.00		0.19	0.64	0.02	
Control Delay	46.0	18.0	39.8	21.4	5.8	11.1	4.5		5.3	10.2	2.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	46.0	18.0	39.8	21.4	5.8	11.1	4.5		5.3	10.2	2.9	
LOS	D	B	D	C	A	B	A		A	B	A	
Approach Delay		33.6		30.6			10.9				10.1	
Approach LOS		C		C			B				B	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 99.3
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 11.3
 Intersection LOS: B
 Intersection Capacity Utilization 63.3%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 703: Ridge Park Dr & SH 6



Timings
703: Ridge Park Dr & SH 6

2019 PM
Baseline

Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	31	12	42	21	69	63	2224	26	71	21	1904	41
Turn Type	Perm		Perm		D.P+P	D.P+P		Perm	D.P+P	D.P+P		Perm
Protected Phases		4		8	5	5	2		1	1	6	
Permitted Phases	4		8		6	6		2	2	2		6
Detector Phases	4	4	8	8	5	5	2	2	1	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	24.0	24.0	5.0	5.0	24.0	24.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	31.0	31.0	12.0	12.0	31.0	31.0
Total Split (s)	17.0	17.0	17.0	17.0	22.0	22.0	65.0	65.0	18.0	18.0	61.0	61.0
Total Split (%)	17.0%	17.0%	17.0%	17.0%	22.0%	22.0%	65.0%	65.0%	18.0%	18.0%	61.0%	61.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	None	Min	Min
Act Effct Green (s)	10.7	10.7	10.7	10.7	77.2	68.9	68.9		77.2	67.3	67.3	
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.77	0.71	0.71		0.77	0.69	0.69	
v/c Ratio	0.23	0.25	0.32	0.19	0.48	0.67	0.02		0.38	0.59	0.04	
Control Delay	41.8	19.5	44.0	28.1	18.0	11.4	2.8		12.7	11.0	2.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	41.8	19.5	44.0	28.1	18.0	11.4	2.8		12.7	11.0	2.8	
LOS	D	B	D	C	B	B	A		B	B	A	
Approach Delay		28.1		36.7			11.7				10.9	
Approach LOS		C		D			B				B	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 97.3
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 12.1
 Intersection LOS: B
 Intersection Capacity Utilization 67.1%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 703: Ridge Park Dr & SH 6



Timings
739: Longenbaugh Dr & SH 6

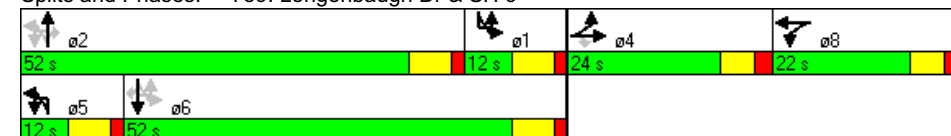
2019 AM
Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	↔	↑	↔	↔	↔			↑↑↑	↔		↔	↑↑↑
Volume (vph)	625	152	177	10	50	27	46	2126	15	7	119	1890
Turn Type	Split		Perm	Split		pm+pt	pm+pt		Perm	pm+pt	pm+pt	
Protected Phases	4	4		8	8	5	5	2		1	1	6
Permitted Phases			4			2	2		2	6	6	
Detector Phases	4	4	4	8	8	5	5	2	2	1	1	6
Minimum Initial (s)	5.0	5.0	5.0	4.0	4.0	5.0	5.0	14.0	14.0	5.0	5.0	14.0
Minimum Split (s)	12.0	12.0	12.0	22.0	22.0	12.0	12.0	21.0	21.0	12.0	12.0	21.0
Total Split (s)	24.0	24.0	24.0	22.0	22.0	12.0	12.0	52.0	52.0	12.0	12.0	52.0
Total Split (%)	21.8%	21.8%	21.8%	20.0%	20.0%	10.9%	10.9%	47.3%	47.3%	10.9%	10.9%	47.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	None	C-Min
Act Effct Green (s)	20.0	20.0	20.0	13.1	13.1			52.9	52.9			53.6
Actuated g/C Ratio	0.18	0.18	0.18	0.12	0.12			0.48	0.48			0.49
v/c Ratio	1.09	0.49	0.43	0.05	0.56			0.34	0.95			0.83
Control Delay	105.1	46.0	8.9	41.5	33.8			20.8	37.4			46.5
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0			0.0
Total Delay	105.1	46.0	8.9	41.5	33.8			20.8	37.4			46.5
LOS	F	D	A	D	C			C	D			A
Approach Delay		77.8			34.1			36.7				25.5
Approach LOS		E			C			D				C

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 10 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.09
 Intersection Signal Delay: 39.4 Intersection LOS: D
 Intersection Capacity Utilization 86.6% ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 739: Longenbaugh Dr & SH 6



Timings
739: Longenbaugh Dr & SH 6

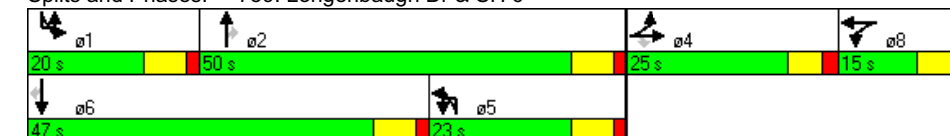
2019 PM
Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑	↔	↔	↔			↑↑↑	↔	↑↑↑	↔
Volume (vph)	310	117	99	64	228	191	1746	33	170	1778	370
Turn Type	Split		Perm	Split		Prot		Perm	Prot	Perm	
Protected Phases	4	4		8	8	5	2		1	6	
Permitted Phases			4						2		6
Detector Phases	4	4	4	8	8	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	14.0	14.0	5.0	14.0	14.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	21.0	21.0	12.0	21.0	21.0
Total Split (s)	25.0	25.0	25.0	15.0	15.0	23.0	50.0	50.0	20.0	47.0	47.0
Total Split (%)	22.7%	22.7%	22.7%	13.6%	13.6%	20.9%	45.5%	45.5%	18.2%	42.7%	42.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	17.7	17.7	17.7	14.3	14.3	19.0	46.2	46.2	15.8	43.0	43.0
Actuated g/C Ratio	0.16	0.16	0.16	0.13	0.13	0.17	0.42	0.42	0.14	0.39	0.39
v/c Ratio	0.61	0.42	0.31	0.33	0.85	0.96	0.89	0.05	0.81	0.97	0.49
Control Delay	47.5	45.3	9.8	50.1	46.8	87.8	35.9	7.7	70.2	48.0	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.5	45.3	9.8	50.1	46.8	87.8	35.9	7.7	70.2	48.0	6.9
LOS	D	D	A	D	D	F	D	A	E	D	A
Approach Delay		39.9			47.2		42.3				43.3
Approach LOS		D			D		D				D

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 64 (58%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 42.9 Intersection LOS: D
 Intersection Capacity Utilization 81.2% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 739: Longenbaugh Dr & SH 6



Timings
766: Willow River Dr & SH 6

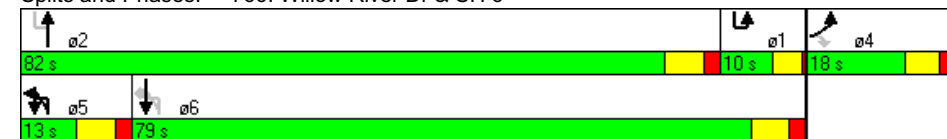
2019 AM
Baseline

Lane Group	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↑↑↑	↖	↗	↖
Volume (vph)	131	102	7	86	2900	77	2022	113
Turn Type	Perm D.P+P D.P+P		D.P+P		D.P+P		Perm	
Protected Phases	4		5	5	2	1	6	
Permitted Phases		4	6	6		2		6
Detector Phases	4	4	5	5	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	20.0	4.0	20.0	20.0
Minimum Split (s)	12.0	12.0	12.0	12.0	27.0	8.0	27.0	27.0
Total Split (s)	18.0	18.0	13.0	13.0	82.0	10.0	79.0	79.0
Total Split (%)	16.4%	16.4%	11.8%	11.8%	74.5%	9.1%	71.8%	71.8%
Yellow Time (s)	4.0	4.0	4.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	2.5	2.5	2.0	2.0	2.0	0.5	2.0	2.0
Lead/Lag			Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Min	None	C-Min	C-Min
Act Effct Green (s)	13.5	13.5		84.5	80.5	86.4	75.7	75.7
Actuated g/C Ratio	0.12	0.12		0.77	0.73	0.79	0.69	0.69
v/c Ratio	0.65	0.39		0.48	0.85	0.52	0.63	0.11
Control Delay	60.6	14.8		21.2	7.3	25.6	6.5	0.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	60.6	14.8		21.2	7.3	25.6	6.5	0.4
LOS	E	B		C	A	C	A	A
Approach Delay	40.5				7.8		6.8	
Approach LOS	D				A		A	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 1 (1%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 8.8
 Intersection Capacity Utilization 77.6%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service D

Splits and Phases: 766: Willow River Dr & SH 6



Timings
766: Willow River Dr & SH 6

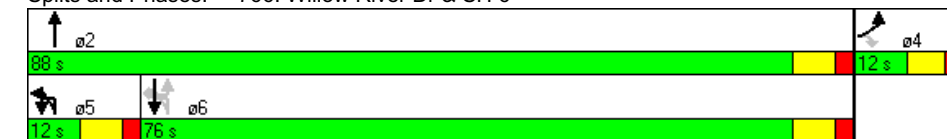
2019 PM
Baseline

Lane Group	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↑↑↑	↖	↗	↖
Volume (vph)	45	36	10	50	2144	31	2244	77
Turn Type	Perm D.P+P D.P+P		D.P+P		D.P+P		Perm	
Protected Phases	4		5	5	2		6	
Permitted Phases		4	6	6		6		6
Detector Phases	4	4	5	5	2	6	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	20.0	20.0	20.0	20.0
Minimum Split (s)	12.0	12.0	12.0	12.0	27.0	27.0	27.0	27.0
Total Split (s)	12.0	12.0	12.0	12.0	88.0	76.0	76.0	76.0
Total Split (%)	12.0%	12.0%	12.0%	12.0%	88.0%	76.0%	76.0%	76.0%
Yellow Time (s)	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.5	2.5	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag			Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?			Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	9.4	9.4		81.8	85.8	76.0	76.0	76.0
Actuated g/C Ratio	0.09	0.09		0.82	0.86	0.76	0.76	0.76
v/c Ratio	0.30	0.21		0.29	0.53	0.37	0.63	0.07
Control Delay	47.3	16.8		9.3	3.0	11.1	2.4	0.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	47.3	16.8		9.3	3.0	11.1	2.4	0.1
LOS	D	B		A	A	B	A	A
Approach Delay	33.8				3.1		2.5	
Approach LOS	C				A		A	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:NBSB, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 3.3
 Intersection Capacity Utilization 60.7%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 766: Willow River Dr & SH 6



Timings
788: Forest Trails Dr & SH 6

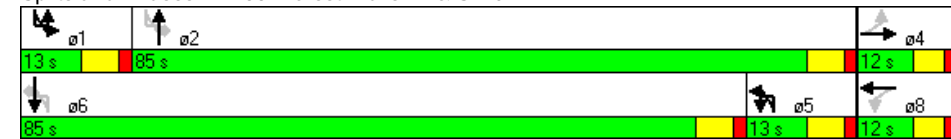
2019 AM
Baseline

Lane Group	EBT	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↑↑↑	↔	↔	↔	↑↑↑	↔
Volume (vph)	0	0	2	11	2849	188	15	12	2137	34
Turn Type		D.P+P	D.P+P		Perm	D.P+P	D.P+P		Perm	
Protected Phases	4	8	5	5	2		1	1	6	
Permitted Phases			6	6		2	2	2		6
Detector Phases	4	8	5	5	2	2	1	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	20.0	20.0	5.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	12.0	12.0	27.0	27.0	12.0	12.0	27.0	27.0
Total Split (s)	12.0	12.0	13.0	13.0	85.0	85.0	13.0	13.0	85.0	85.0
Total Split (%)	10.9%	10.9%	11.8%	11.8%	77.3%	77.3%	11.8%	11.8%	77.3%	77.3%
Yellow Time (s)	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag			Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min
Act Effct Green (s)	7.6	7.6		92.8	87.3	87.3		92.0	86.9	86.9
Actuated g/C Ratio	0.07	0.07		0.84	0.79	0.79		0.84	0.79	0.79
v/c Ratio	0.39	0.41		0.06	0.77	0.16		0.15	0.58	0.03
Control Delay	16.2	22.0		0.8	1.9	0.2		3.0	6.5	1.7
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	16.2	22.0		0.8	1.9	0.2		3.0	6.5	1.7
LOS	B	C		A	A	A		A	A	A
Approach Delay	16.2	22.0			1.8				6.4	
Approach LOS	B	C			A				A	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 4 (4%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 4.3
 Intersection Capacity Utilization 65.9%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 788: Forest Trails Dr & SH 6



Timings
788: Forest Trails Dr & SH 6

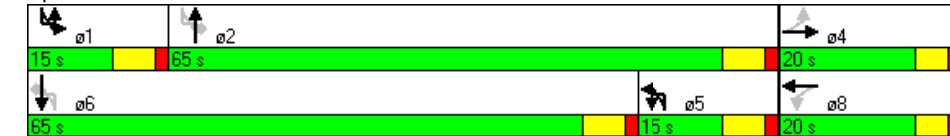
2019 PM
Baseline

Lane Group	EBT	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↑↑↑	↔	↔	↔	↑↑↑	↔
Volume (vph)	0	0	8	30	2067	114	26	21	2308	78
Turn Type		D.P+P	D.P+P		Perm	D.P+P	D.P+P		Perm	
Protected Phases	4	8	5	5	2		1	1	6	
Permitted Phases			6	6		2	2	2		6
Detector Phases	4	8	5	5	2	2	1	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	20.0	20.0	5.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	12.0	12.0	27.0	27.0	12.0	12.0	27.0	27.0
Total Split (s)	20.0	20.0	15.0	15.0	65.0	65.0	15.0	15.0	65.0	65.0
Total Split (%)	20.0%	20.0%	15.0%	15.0%	65.0%	65.0%	15.0%	15.0%	65.0%	65.0%
Yellow Time (s)	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag			Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min
Act Effct Green (s)	11.8	11.8		79.4	70.4	70.4		77.0	71.2	71.2
Actuated g/C Ratio	0.12	0.12		0.79	0.70	0.70		0.77	0.71	0.71
v/c Ratio	0.11	0.92dr		0.16	0.63	0.11		0.22	0.69	0.07
Control Delay	0.4	26.5		6.8	7.7	1.1		5.1	11.5	1.9
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	0.4	26.5		6.8	7.7	1.1		5.1	11.5	1.9
LOS	A	C		A	A	A		A	B	A
Approach Delay	0.4	26.5			7.3				11.0	
Approach LOS	A	C			A				B	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 6 (6%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 10.1
 Intersection Capacity Utilization 59.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 788: Forest Trails Dr & SH 6



Timings
828: West Rd & SH 6

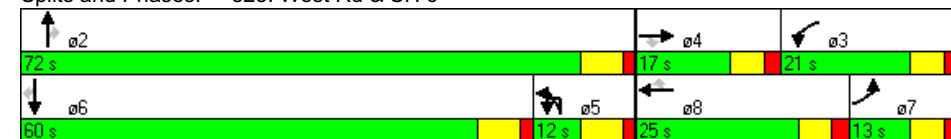
2019 AM
Baseline

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Configurations	↔↔	↕↕	↔↔	↔↔	↕↕	↔↔	↔↔	↕↕	↔↔	↕↕	↔↔
Volume (vph)	251	195	87	409	619	123	114	1658	175	2316	258
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm		Perm
Protected Phases	7	4		3	8		5	2		6	
Permitted Phases			4			8			2		6
Detector Phases	7	4	4	3	8	8	5	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	12.0	12.0	12.0	12.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	19.0	19.0	19.0	19.0
Total Split (s)	13.0	17.0	17.0	21.0	25.0	25.0	12.0	72.0	72.0	60.0	60.0
Total Split (%)	11.8%	15.5%	15.5%	19.1%	22.7%	22.7%	10.9%	65.5%	65.5%	54.5%	54.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag			Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	9.0	12.4	12.4	17.6	21.0	21.0	8.0	68.0	68.0	56.0	56.0
Actuated g/C Ratio	0.08	0.11	0.11	0.16	0.19	0.19	0.07	0.62	0.62	0.51	0.51
v/c Ratio	0.97	0.53	0.45	0.81	1.00	0.42	0.71	0.57	0.18	0.97	0.31
Control Delay	98.1	51.1	35.3	57.6	78.6	37.8	66.3	13.3	1.7	33.7	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.1	51.1	35.3	57.6	78.6	37.8	66.3	13.3	1.7	33.7	3.3
LOS	F	D	D	E	E	D	E	B	A	C	A
Approach Delay		70.6			66.8			16.6		30.7	
Approach LOS		E			E			B		C	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 10 (9%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 36.3
 Intersection Capacity Utilization 87.0%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 828: West Rd & SH 6



Timings
828: West Rd & SH 6

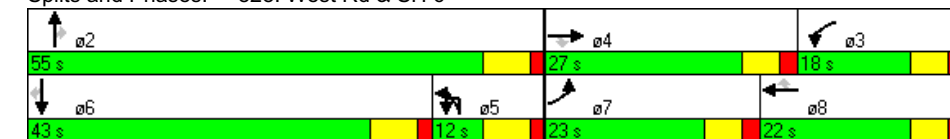
2019 PM
Baseline

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Configurations	↔↔	↕↕	↔↔	↔↔	↕↕	↔↔	↔↔	↕↕	↔↔	↕↕	↔↔
Volume (vph)	385	596	29	314	286	142	86	1768	314	1525	214
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm		Perm
Protected Phases	7	4		3	8		5	2		6	
Permitted Phases			4			8			2		6
Detector Phases	7	4	4	3	8	8	5	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	12.0	12.0	12.0	12.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	19.0	19.0	19.0	19.0
Total Split (s)	23.0	27.0	27.0	18.0	22.0	22.0	12.0	55.0	55.0	43.0	43.0
Total Split (%)	23.0%	27.0%	27.0%	18.0%	22.0%	22.0%	12.0%	55.0%	55.0%	43.0%	43.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag			Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	17.8	22.3	22.3	13.8	18.3	18.3	8.3	51.9	51.9	39.6	39.6
Actuated g/C Ratio	0.18	0.22	0.22	0.14	0.18	0.18	0.08	0.52	0.52	0.40	0.40
v/c Ratio	0.68	0.82	0.08	0.72	0.48	0.50	0.53	0.73	0.35	0.82	0.30
Control Delay	44.6	46.5	11.4	50.7	39.5	38.1	51.4	20.9	2.5	25.1	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	46.5	11.4	50.7	39.5	38.1	51.4	20.9	2.5	25.1	3.1
LOS	D	D	B	D	D	D	D	C	A	C	A
Approach Delay		44.8			43.9			20.2		22.4	
Approach LOS		D			D			C		C	

Intersection Summary


Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 54 (54%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 28.3
 Intersection Capacity Utilization 72.4%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 828: West Rd & SH 6



Timings
850: Pebble Lake Dr & SH 6

2019 AM
Baseline



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↖	↑↑↑	↖	↖	↖	↖
Volume (vph)	228	64	38	13	193	2969	22	222	1815	17
Turn Type	D.P+P		D.P+P		Perm		Perm	Prot		Perm
Protected Phases	7	4	3	8		2		1	6	
Permitted Phases	8		4		8		2			6
Detector Phases	7	4	3	8	8	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	4.0	4.0	16.0	16.0	5.0	16.0	16.0
Minimum Split (s)	13.0	13.0	13.0	20.0	20.0	23.0	23.0	13.0	23.0	23.0
Total Split (s)	13.0	20.0	13.0	20.0	20.0	63.0	63.0	14.0	77.0	77.0
Total Split (%)	11.8%	18.2%	11.8%	18.2%	18.2%	57.3%	57.3%	12.7%	70.0%	70.0%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	0.5	0.5	2.0	2.0	2.5	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	23.9	20.1	25.5	14.9	14.9	60.1	60.1	10.0	74.1	74.1
Actuated g/C Ratio	0.22	0.18	0.23	0.14	0.14	0.55	0.55	0.09	0.67	0.67
v/c Ratio	0.74	0.31	0.13	0.06	0.85	1.16	0.03	1.16	0.58	0.02
Control Delay	51.8	36.2	31.9	41.2	67.9	97.9	6.8	146.3	10.6	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	36.2	31.9	41.2	67.9	97.9	6.8	146.3	10.6	2.8
LOS	D	D	C	D	E	F	A	F	B	A
Approach Delay		47.1		61.0		97.2			31.4	
Approach LOS		D		E		F			C	

Intersection Summary


Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.16
 Intersection Signal Delay: 67.9
 Intersection Capacity Utilization 104.8%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service G

Splits and Phases: 850: Pebble Lake Dr & SH 6



Timings
850: Pebble Lake Dr & SH 6

2019 PM
Baseline

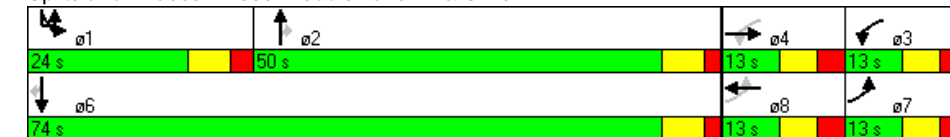


Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↖	↖	↑↑↑	↖	↖	↖	↖
Volume (vph)		14	50	49	1855	20	396	2024	112
Turn Type		D.P+P		D.P+P		Perm	Prot		Perm
Protected Phases		7	4	3	8	2		1	6
Permitted Phases		8		4		2			6
Detector Phases		7	4	3	8	2	2	1	6
Minimum Initial (s)		5.0	5.0	5.0	5.0	16.0	16.0	5.0	16.0
Minimum Split (s)		13.0	13.0	13.0	13.0	23.0	23.0	13.0	23.0
Total Split (s)		13.0	13.0	13.0	13.0	50.0	50.0	24.0	74.0
Total Split (%)		13.0%	13.0%	13.0%	13.0%	50.0%	50.0%	24.0%	74.0%
Yellow Time (s)		4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)		3.0	3.0	3.0	3.0	2.0	2.0	2.5	2.0
Lead/Lag		Lag	Lead	Lag	Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode		None	None	None	None	C-Min	C-Min	None	C-Min
Act Effct Green (s)		8.9	15.8	19.0	49.1	49.1	19.9	73.0	73.0
Actuated g/C Ratio		0.09	0.16	0.19	0.49	0.49	0.20	0.73	0.73
v/c Ratio		0.22	0.22	0.26	0.81	0.03	0.76	0.59	0.10
Control Delay		37.3	34.8	12.0	19.2	5.9	45.9	7.8	1.1
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		37.3	34.8	12.0	19.2	5.9	45.9	7.8	1.1
LOS		D	C	B	B	A	D	A	A
Approach Delay		37.3		17.2	19.1			14.5	
Approach LOS		D		B	B			B	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 64 (64%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 16.6
 Intersection Capacity Utilization 72.2%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 850: Pebble Lake Dr & SH 6



Timings
882: Huffmeister Rd & SH 6

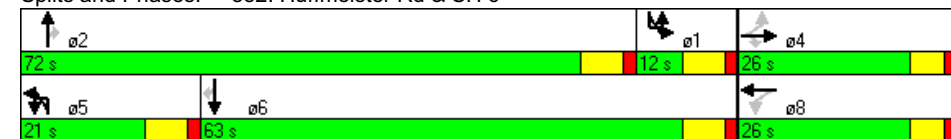
2019 AM
Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↖	↗	↘	↖	↗	↘
Volume (vph)	260	7	626	5	9	311	3025	8	1	1387	37
Turn Type	Perm		Perm	Perm		Prot		Perm	Prot		Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phases	4	4	4	8	8	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0	21.0	72.0	72.0	12.0	63.0	63.0
Total Split (%)	23.6%	23.6%	23.6%	23.6%	23.6%	19.1%	65.5%	65.5%	10.9%	57.3%	57.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	22.0	22.0	22.0		22.0	16.4	68.0	68.0	8.0	59.6	59.6
Actuated g/C Ratio	0.20	0.20	0.20		0.20	0.15	0.62	0.62	0.07	0.54	0.54
v/c Ratio	1.02	0.69	0.67		0.03	0.67	1.05	0.01	0.80	0.55	0.05
Control Delay	103.2	19.2	18.2		35.7	51.1	51.7	5.2	90.1	17.5	3.9
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.2	19.2	18.2		35.7	51.1	51.7	5.2	90.1	17.5	3.9
LOS	F	B	B		D	D	D	A	F	B	A
Approach Delay		43.3			35.7		51.5			21.7	
Approach LOS		D			D		D			C	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.05
 Intersection Signal Delay: 42.4
 Intersection Capacity Utilization 94.8%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service F

Splits and Phases: 882: Huffmeister Rd & SH 6



Timings
882: Huffmeister Rd & SH 6

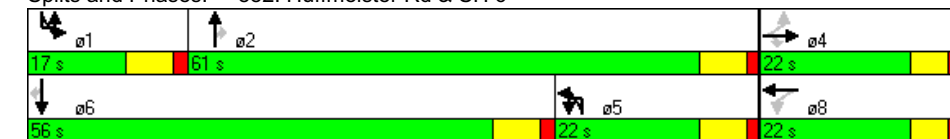
2019 PM
Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↖	↗	↘	↖	↗	↘
Volume (vph)	108	4	600	13	15	420	1429	8	1	2068	81
Turn Type	Perm		Perm	Perm		Prot		Perm	Prot		Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phases	4	4	4	8	8	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	61.0	61.0	17.0	56.0	56.0
Total Split (%)	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	61.0%	61.0%	17.0%	56.0%	56.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	15.3	15.3	15.3		15.3	17.7	60.2	60.2	12.6	55.0	55.0
Actuated g/C Ratio	0.15	0.15	0.15		0.15	0.18	0.60	0.60	0.13	0.55	0.55
v/c Ratio	0.56	0.73	0.72		0.09	0.78	0.51	0.01	0.53	0.80	0.10
Control Delay	49.3	19.6	19.0		33.0	49.0	12.7	5.1	49.8	21.6	3.0
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.3	19.6	19.0		33.0	49.0	12.7	5.1	49.8	21.6	3.0
LOS	D	B	B		C	D	B	A	D	C	A
Approach Delay		23.8			33.0		21.1			22.3	
Approach LOS		C			C		C			C	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 22.1
 Intersection Capacity Utilization 94.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service F

Splits and Phases: 882: Huffmeister Rd & SH 6



Timings
1053: Eldridge Pkwy & FM 1960

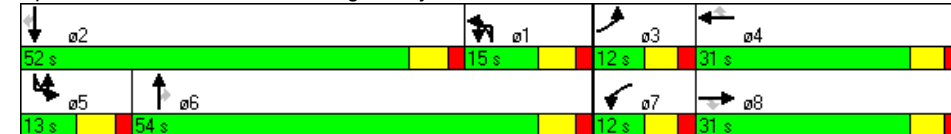
2019 AM
Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	29	900	199	84	215	323	182	2332	58	279	1562	25
Turn Type	Prot	Perm	Perm	Prot	Perm	Perm	Prot	Perm	Perm	Prot	Perm	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8			4			6			2
Detector Phases	3	8	8	7	4	4	1	6	6	5	2	2
Minimum Initial (s)	3.0	7.0	7.0	3.0	7.0	7.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	12.0	14.0	14.0	12.0	14.0	14.0	12.0	22.0	22.0	12.0	22.0	22.0
Total Split (s)	12.0	31.0	31.0	12.0	31.0	31.0	15.0	54.0	54.0	13.0	52.0	52.0
Total Split (%)	10.9%	28.2%	28.2%	10.9%	28.2%	28.2%	13.6%	49.1%	49.1%	11.8%	47.3%	47.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	7.9	27.1	27.1	8.0	29.4	29.4	14.0	50.1	50.1	9.0	45.1	45.1
Actuated g/C Ratio	0.07	0.25	0.25	0.07	0.27	0.27	0.13	0.47	0.47	0.08	0.42	0.42
v/c Ratio	0.13	1.10	0.45	0.37	0.24	0.65	0.58	1.07	0.08	1.18	0.80	0.04
Control Delay	49.7	99.7	20.7	53.0	32.4	27.4	51.9	70.1	7.7	155.2	30.5	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.7	99.7	20.7	53.0	32.4	27.4	51.9	70.1	7.7	155.2	30.5	6.7
LOS	D	F	C	D	C	C	D	E	A	F	C	A
Approach Delay		84.4			32.6			67.0			50.7	
Approach LOS		F			C			E			D	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 107.6
 Natural Cycle: 150
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.18
 Intersection Signal Delay: 61.8
 Intersection LOS: E
 Intersection Capacity Utilization 95.5%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 1053: Eldridge Pkwy & FM 1960



Timings
1053: Eldridge Pkwy & FM 1960

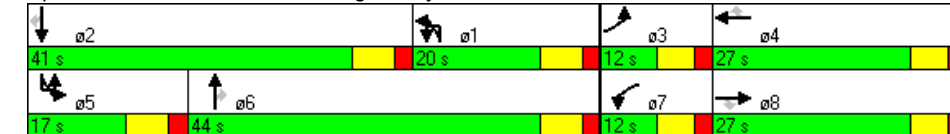
2019 PM
Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	118	352	381	144	803	321	360	1667	45	231	1877	21
Turn Type	Prot	Perm	Perm	Prot	Perm	Perm	Prot	Perm	Perm	Prot	Perm	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8			4			6			2
Detector Phases	3	8	8	7	4	4	1	6	6	5	2	2
Minimum Initial (s)	3.0	7.0	7.0	3.0	7.0	7.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	12.0	14.0	14.0	12.0	14.0	14.0	12.0	22.0	22.0	12.0	22.0	22.0
Total Split (s)	12.0	27.0	27.0	12.0	27.0	27.0	20.0	44.0	44.0	17.0	41.0	41.0
Total Split (%)	12.0%	27.0%	27.0%	12.0%	27.0%	27.0%	20.0%	44.0%	44.0%	17.0%	41.0%	41.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	8.0	23.0	23.0	8.0	23.0	23.0	16.0	40.0	40.0	13.0	37.0	37.0
Actuated g/C Ratio	0.08	0.23	0.23	0.08	0.23	0.23	0.16	0.40	0.40	0.13	0.37	0.37
v/c Ratio	0.47	0.47	0.97	0.57	1.07	0.79	1.04	0.89	0.07	0.81	1.08	0.04
Control Delay	49.9	35.5	68.7	53.1	90.6	40.4	91.1	34.8	5.8	57.6	79.1	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.9	35.5	68.7	53.1	90.6	40.4	91.1	34.8	5.8	57.6	79.1	10.1
LOS	D	D	E	D	F	D	F	C	A	E	E	B
Approach Delay		52.3			73.6			47.4			75.2	
Approach LOS		D			E			D			E	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Natural Cycle: 130
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.08
 Intersection Signal Delay: 62.5
 Intersection LOS: E
 Intersection Capacity Utilization 92.3%
 ICU Level of Service F
 Analysis Period (min) 15

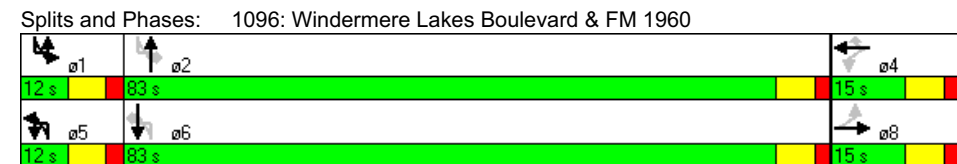
Splits and Phases: 1053: Eldridge Pkwy & FM 1960



Timings 2019 AM
1096: Windermere Lakes Boulevard & FM 1960
Baseline

Lane Group	EBL	EBT	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	↖	↗	↖	↗	↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	23	8	50	0	77	39	9	2834	31	37	33	1951
Turn Type	Perm		Perm		Perm	D.P+P	D.P+P		Perm	D.P+P	D.P+P	
Protected Phases		8		4		5	5	2		1	1	6
Permitted Phases	8		4		4	6	6		2	2	2	
Detector Phases	8	8	4	4	4	5	5	2	2	1	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	1.0	1.0	1.0	1.0	15.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	22.0	22.0	12.0	12.0	22.0
Total Split (s)	15.0	15.0	15.0	15.0	15.0	12.0	12.0	83.0	83.0	12.0	12.0	83.0
Total Split (%)	13.6%	13.6%	13.6%	13.6%	13.6%	10.9%	10.9%	75.5%	75.5%	10.9%	10.9%	75.5%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	None	C-Min
Act Effct Green (s)	10.3	10.3		10.3	10.3		90.9	85.2	85.2		90.9	85.3
Actuated g/C Ratio	0.09	0.09		0.09	0.09		0.83	0.77	0.77		0.83	0.78
v/c Ratio	0.20	0.21		0.43	0.44		0.24	0.78	0.03		0.38	0.54
Control Delay	49.6	23.8		57.4	30.2		4.6	11.4	1.5		15.4	7.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	49.6	23.8		57.4	30.2		4.6	11.4	1.5		15.4	7.0
LOS	D	C		E	C		A	B	A		B	A
Approach Delay		34.0		40.8				11.2				7.2
Approach LOS		C		D				B				A

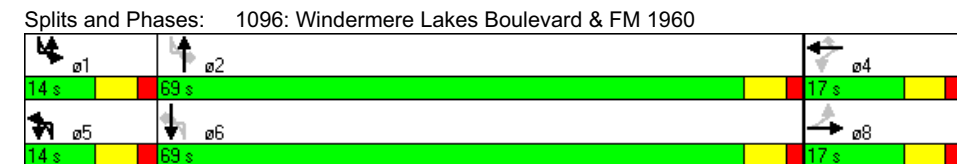
Intersection Summary
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 10.6
 Intersection Capacity Utilization 77.1%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D



Timings 2019 PM
1096: Windermere Lakes Boulevard & FM 1960
Baseline

Lane Group	EBL	EBT	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	↖	↗	↖	↗	↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	71	14	58	10	80	103	29	2160	53	52	59	2607
Turn Type	Perm		Perm		Perm	D.P+P	D.P+P		Perm	D.P+P	D.P+P	
Protected Phases		8		4		5	5	2		1	1	6
Permitted Phases	8		4		4	6	6		2	2	2	
Detector Phases	8	8	4	4	4	5	5	2	2	1	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	1.0	1.0	1.0	1.0	15.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	22.0	22.0	12.0	12.0	22.0
Total Split (s)	17.0	17.0	17.0	17.0	17.0	14.0	14.0	69.0	69.0	14.0	14.0	69.0
Total Split (%)	17.0%	17.0%	17.0%	17.0%	17.0%	14.0%	14.0%	69.0%	69.0%	14.0%	14.0%	69.0%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	None	C-Min
Act Effct Green (s)	11.9	11.9		11.9	11.9		76.1	66.6	66.6		76.1	66.5
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.76	0.67	0.67		0.76	0.66
v/c Ratio	0.49	0.47		0.56	0.34		0.58	0.69	0.05		0.50	0.84
Control Delay	51.7	32.3		57.9	15.4		26.6	12.0	1.9		20.9	16.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	51.7	32.3		57.9	15.4		26.6	12.0	1.9		20.9	16.1
LOS	D	C		E	B		C	B	A		C	B
Approach Delay		40.3		35.0				12.6				15.6
Approach LOS		D		C				B				B

Intersection Summary
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 15.6
 Intersection Capacity Utilization 78.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D



Timings
1121: Fallbrook Dr & FM 1960

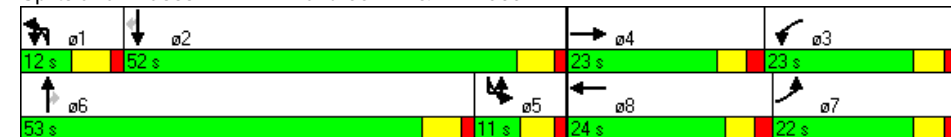
2019 AM
Baseline

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↘	↗	↘	↗	↘	↘	↗	↗
Volume (vph)	159	438	224	53	20	1926	383	16	1605	44
Turn Type	Prot		Prot		Prot		Perm	Prot		Perm
Protected Phases	7	4	3	8	1	6		5	2	
Permitted Phases							6			2
Detector Phases	7	4	3	8	1	6	6	5	2	2
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	11.0	11.0	11.0	11.0	12.0	32.0	32.0	11.0	32.0	32.0
Total Split (s)	22.0	23.0	23.0	24.0	12.0	53.0	53.0	11.0	52.0	52.0
Total Split (%)	20.0%	20.9%	20.9%	21.8%	10.9%	48.2%	48.2%	10.0%	47.3%	47.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.0	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	30.8	19.0	18.3	8.7	7.9	54.1	54.1	7.0	51.1	51.1
Actuated g/C Ratio	0.28	0.17	0.17	0.08	0.07	0.49	0.49	0.06	0.46	0.46
v/c Ratio	0.35	0.84	0.83	0.26	0.40	0.84	0.43	0.38	0.74	0.06
Control Delay	35.2	56.7	67.6	39.6	58.5	29.2	5.2	59.6	27.3	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.2	56.7	67.6	39.6	58.5	29.2	5.2	59.6	27.3	5.5
LOS	D	E	E	D	E	C	A	E	C	A
Approach Delay		51.2		61.0		25.9			27.5	
Approach LOS		D		E		C			C	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 31.7
 Intersection Capacity Utilization 74.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 1121: Fallbrook Dr & FM 1960



Timings
1121: Fallbrook Dr & FM 1960

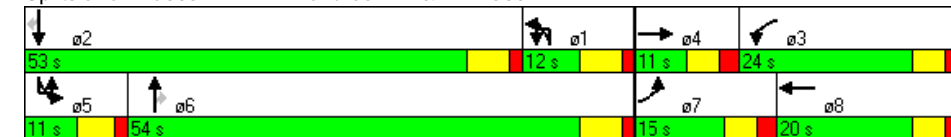
2019 PM
Baseline

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↘	↗	↘	↗	↘	↘	↗	↗
Volume (vph)	129	93	322	357	46	1906	194	7	2222	148
Turn Type	Prot		Prot		Prot		Perm	Prot		Perm
Protected Phases	7	4	3	8	1	6		5	2	
Permitted Phases							6			2
Detector Phases	7	4	3	8	1	6	6	5	2	2
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	11.0	11.0	11.0	11.0	12.0	32.0	32.0	11.0	32.0	32.0
Total Split (s)	15.0	11.0	24.0	20.0	12.0	54.0	54.0	11.0	53.0	53.0
Total Split (%)	15.0%	11.0%	24.0%	20.0%	12.0%	54.0%	54.0%	11.0%	53.0%	53.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.0	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	10.8	7.0	20.0	16.2	8.0	52.2	52.2	7.0	49.0	49.0
Actuated g/C Ratio	0.11	0.07	0.20	0.16	0.08	0.52	0.52	0.07	0.49	0.49
v/c Ratio	0.73	0.59	0.99	0.70	0.90	0.78	0.23	0.39	0.97	0.19
Control Delay	65.8	38.9	86.6	46.8	100.5	22.5	2.6	54.0	37.5	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.8	38.9	86.6	46.8	100.5	22.5	2.6	54.0	37.5	3.9
LOS	E	D	F	D	F	C	A	D	D	A
Approach Delay		51.1		65.3		24.9			35.7	
Approach LOS		D		E		C			D	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 35.9
 Intersection Capacity Utilization 85.2%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 1121: Fallbrook Dr & FM 1960



Timings
1183: Driveway 2683 & FM 1960

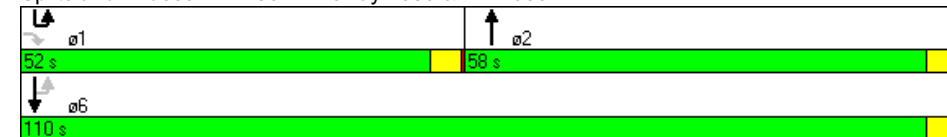
2019 AM
Baseline

Lane Group	EBR	NBT	SBU	SBT
Lane Configurations	↑	↑↑↑	↓	↑↑↑
Volume (vph)	25	2292	764	2011
Turn Type	custom		pm+pt	
Protected Phases		2	1	6
Permitted Phases	1		6	
Detector Phases	1	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0
Total Split (s)	52.0	58.0	52.0	110.0
Total Split (%)	47.3%	52.7%	47.3%	100.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	C-Max
Act Effct Green (s)	48.0	54.0	106.0	110.0
Actuated g/C Ratio	0.44	0.49	0.96	1.00
v/c Ratio	0.04	1.00	0.99	0.44
Control Delay	0.8	45.9	38.5	0.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	0.8	45.9	38.5	0.1
LOS	A	D	D	A
Approach Delay		45.9		10.6
Approach LOS		D		B

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 97 (88%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 26.3
 Intersection Capacity Utilization 93.3%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service F

Splits and Phases: 1183: Driveway 2683 & FM 1960



Timings
1183: Driveway 2683 & FM 1960

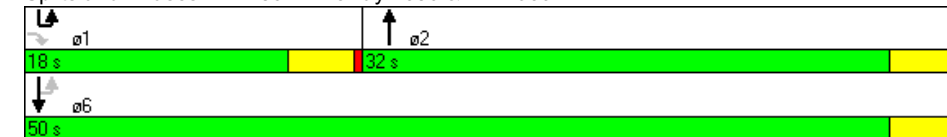
2019 PM
Baseline

Lane Group	EBR	NBT	SBU	SBT
Lane Configurations	↑	↑↑↑	↓	↑↑↑
Volume (vph)	28	2477	582	2427
Turn Type	custom		pm+pt	
Protected Phases		2	1	6
Permitted Phases	1		6	
Detector Phases	1	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0
Total Split (s)	18.0	32.0	18.0	50.0
Total Split (%)	36.0%	64.0%	36.0%	100.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	
Recall Mode	None	C-Min	None	C-Min
Act Effct Green (s)	14.0	28.0	46.0	50.0
Actuated g/C Ratio	0.28	0.56	0.92	1.00
v/c Ratio	0.06	0.95	0.98	0.53
Control Delay	6.3	20.1	36.4	0.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.3	20.1	36.4	0.3
LOS	A	C	D	A
Approach Delay		20.1		7.2
Approach LOS		C		A

Intersection Summary

Cycle Length: 50
 Actuated Cycle Length: 50
 Offset: 2 (4%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 12.9
 Intersection Capacity Utilization 86.8%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service E

Splits and Phases: 1183: Driveway 2683 & FM 1960

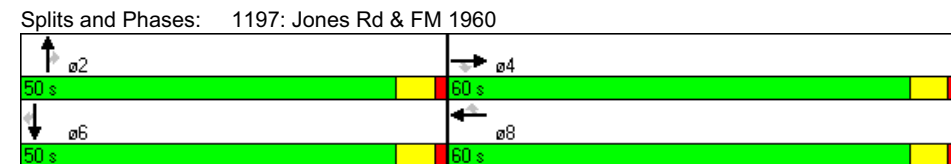


Timings
1197: Jones Rd & FM 1960

2019 AM
Baseline

Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗
Volume (vph)	2044	292	570	1001	2221	720	2458	256
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases	4	8		2		6		
Permitted Phases	4		8		2		6	
Detector Phases	4	4	8	8	2	2	6	6
Minimum Initial (s)	10.0	10.0	10.0	10.0	15.0	15.0	15.0	15.0
Minimum Split (s)	16.0	16.0	16.0	16.0	21.0	21.0	21.0	21.0
Total Split (s)	60.0	60.0	60.0	60.0	50.0	50.0	50.0	50.0
Total Split (%)	54.5%	54.5%	54.5%	54.5%	45.5%	45.5%	45.5%	45.5%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag	Lead-Lag Optimize?							
Recall Mode	Min	Min	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	56.0	56.0	56.0	56.0	46.0	46.0	46.0	46.0
Actuated g/C Ratio	0.51	0.51	0.51	0.51	0.42	0.42	0.42	0.42
v/c Ratio	0.86	0.39	0.24	1.35	1.14	1.18	1.26	0.36
Control Delay	27.9	18.4	15.4	192.0	87.9	114.6	142.8	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	10.8	0.0
Total Delay	27.9	18.4	15.4	192.0	87.9	114.6	153.6	5.8
LOS	C	B	B	F	F	F	F	A
Approach Delay	26.7		127.9		94.5		139.7	
Approach LOS	C		F		F		F	

Intersection Summary
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 11 (10%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.35
 Intersection Signal Delay: 96.2
 Intersection Capacity Utilization 111.6%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service H

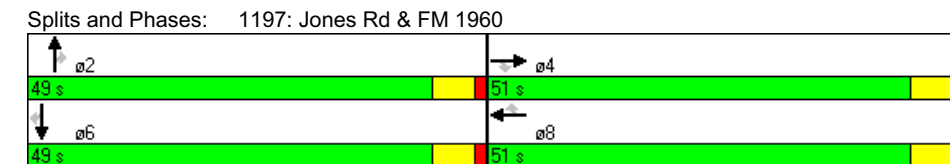


Timings
1197: Jones Rd & FM 1960

2019 PM
Baseline

Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗
Volume (vph)	1089	492	1313	849	2533	492	2429	584
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases	4	8		2		6		
Permitted Phases	4		8		2		6	
Detector Phases	4	4	8	8	2	2	6	6
Minimum Initial (s)	10.0	10.0	10.0	10.0	15.0	15.0	15.0	15.0
Minimum Split (s)	16.0	16.0	16.0	16.0	21.0	21.0	21.0	21.0
Total Split (s)	51.0	51.0	51.0	51.0	49.0	49.0	49.0	49.0
Total Split (%)	51.0%	51.0%	51.0%	51.0%	49.0%	49.0%	49.0%	49.0%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag	Lead-Lag Optimize?							
Recall Mode	Min	Min	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	47.0	47.0	47.0	47.0	45.0	45.0	45.0	45.0
Actuated g/C Ratio	0.47	0.47	0.47	0.47	0.45	0.45	0.45	0.45
v/c Ratio	0.50	0.72	0.60	1.24	1.20	0.73	1.15	0.88
Control Delay	19.2	28.0	20.8	146.3	118.2	21.1	91.9	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.7
Total Delay	19.2	28.0	20.8	146.3	118.2	21.1	106.8	24.0
LOS	B	C	C	F	F	C	F	C
Approach Delay	21.9		70.1		102.4		90.8	
Approach LOS	C		E		F		F	

Intersection Summary
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 1 (1%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.24
 Intersection Signal Delay: 78.7
 Intersection Capacity Utilization 108.2%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service G



Timings
1208: Windfern Rd & FM 1960

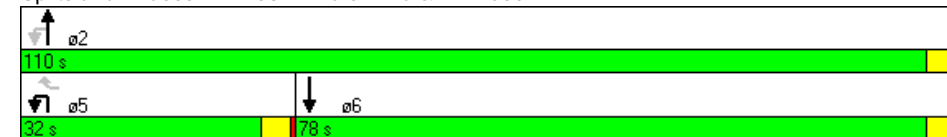
2019 AM
Baseline

Lane Group	WBR	NBU	NBT	SBT
Lane Configurations	↑	↓	↑↑↑	↑↑↑
Volume (vph)	50	286	2255	2635
Turn Type	custom	pm+pt		
Protected Phases		5	2	6
Permitted Phases	5	2		
Detector Phases	5	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	8.0	20.0	20.0
Total Split (s)	32.0	32.0	110.0	78.0
Total Split (%)	29.1%	29.1%	100.0%	70.9%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	28.0	106.0	110.0	74.0
Actuated g/C Ratio	0.25	0.96	1.00	0.67
v/c Ratio	0.12	0.60	0.50	0.84
Control Delay	14.4	26.2	0.0	16.4
Queue Delay	0.0	0.1	0.0	16.7
Total Delay	14.4	26.3	0.0	33.2
LOS	B	C	A	C
Approach Delay			2.9	33.2
Approach LOS			A	C

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 108 (98%), Referenced to phase 2:NBTU and 6:SBT, Start of Green
 Natural Cycle: 45
 Control Type: Pretimed
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 18.1
 Intersection Capacity Utilization 73.4%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 1208: Windfern Rd & FM 1960



Timings
1208: Windfern Rd & FM 1960

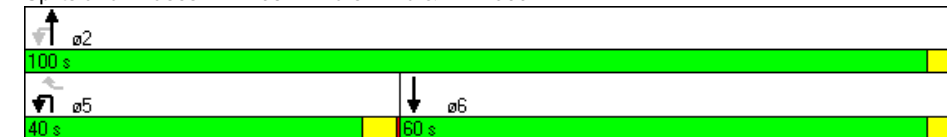
2019 PM
Baseline

Lane Group	WBR	NBU	NBT	SBT
Lane Configurations	↑	↓	↑↑↑	↑↑↑
Volume (vph)	75	682	2640	2645
Turn Type	custom	pm+pt		
Protected Phases		5	2	6
Permitted Phases	5	2		
Detector Phases	5	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	8.0	20.0	20.0
Total Split (s)	40.0	40.0	100.0	60.0
Total Split (%)	40.0%	40.0%	100.0%	60.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Recall Mode	None	None	C-Min	C-Min
Act Effct Green (s)	36.0	96.0	100.0	56.0
Actuated g/C Ratio	0.36	0.96	1.00	0.56
v/c Ratio	0.14	1.04	0.60	1.01
Control Delay	16.9	54.4	0.3	41.9
Queue Delay	0.0	6.9	0.0	96.9
Total Delay	16.9	61.3	0.3	138.9
LOS	B	E	A	F
Approach Delay			12.3	138.9
Approach LOS			B	F

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 78 (78%), Referenced to phase 2:NBTU and 6:SBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.04
 Intersection Signal Delay: 66.7
 Intersection Capacity Utilization 95.6%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service F

Splits and Phases: 1208: Windfern Rd & FM 1960



Timings
1283: Driveway 2783 & FM 1960

2019 AM
Baseline

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↗	↗↗↗	↗	↗	↗↗↗	↗
Volume (vph)	1	0	111	0	16	2441	86	35	2519	17
Turn Type	Perm		Perm		Prot		Perm	Prot		Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8				2			6
Detector Phases	4	4	8	8	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	12.0	26.0	26.0	11.0	26.0	26.0
Total Split (s)	25.0	25.0	25.0	25.0	12.0	74.0	74.0	11.0	73.0	73.0
Total Split (%)	22.7%	22.7%	22.7%	22.7%	10.9%	67.3%	67.3%	10.0%	66.4%	66.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	1.0	1.0	1.0	1.0	1.0
Lead/Lag					Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)		16.8		16.8	8.0	69.3	69.3	7.0	73.2	73.2
Actuated g/C Ratio		0.16		0.16	0.07	0.68	0.68	0.07	0.71	0.71
v/c Ratio		0.02		0.68	0.14	0.77	0.08	0.41	0.75	0.02
Control Delay		23.8		51.5	51.5	14.8	1.8	59.9	12.8	3.5
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		23.8		51.5	51.5	14.8	1.8	59.9	12.8	3.5
LOS		C		D	D	B	A	E	B	A
Approach Delay		23.8		51.5		14.6			13.6	
Approach LOS		C		D		B			B	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 102.6
 Natural Cycle: 65
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 15.1
 Intersection LOS: B
 Intersection Capacity Utilization 70.5%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 1283: Driveway 2783 & FM 1960



Timings
1283: Driveway 2783 & FM 1960

2019 PM
Baseline

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↗	↗↗↗	↗	↗	↗↗↗	↗
Volume (vph)	4	0	132	0	5	2456	29	76	2517	12
Turn Type	Perm		Perm		Prot		Perm	Prot		Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8				2			6
Detector Phases	4	4	8	8	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	12.0	26.0	26.0	11.0	26.0	26.0
Total Split (s)	22.0	22.0	22.0	22.0	12.0	65.0	65.0	13.0	66.0	66.0
Total Split (%)	22.0%	22.0%	22.0%	22.0%	12.0%	65.0%	65.0%	13.0%	66.0%	66.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	1.0	1.0	1.0	1.0	1.0
Lead/Lag					Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)		15.9		15.9	8.1	61.1	61.1	8.6	68.7	68.7
Actuated g/C Ratio		0.17		0.17	0.08	0.64	0.64	0.09	0.72	0.72
v/c Ratio		0.05		0.74	0.09	0.82	0.03	0.61	0.74	0.01
Control Delay		21.7		55.1	47.1	16.9	2.9	60.7	10.7	3.1
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		21.7		55.1	47.1	16.9	2.9	60.7	10.7	3.1
LOS		C		E	D	B	A	E	B	A
Approach Delay		21.7		55.1		16.9			12.3	
Approach LOS		C		E		B			B	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 95
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 15.8
 Intersection LOS: B
 Intersection Capacity Utilization 78.6%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1283: Driveway 2783 & FM 1960



Timings
1353: Perry Rd & FM 1960

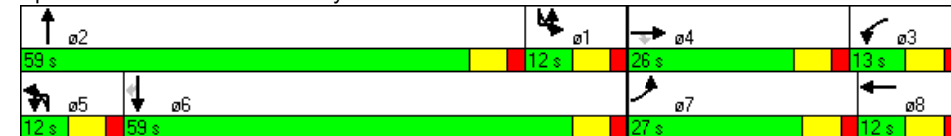
2019 AM
Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↖	↗	↖	↗	↖
Volume (vph)	357	443	130	101	124	88	2344	158	2143	57
Turn Type	Prot	Perm	Perm	Prot	Prot	Prot	Prot	Prot	Perm	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phases	7	4	4	3	8	5	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	15.0	5.0	14.5	14.5
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	22.0	12.0	21.0	21.0
Total Split (s)	27.0	26.0	26.0	13.0	12.0	12.0	59.0	12.0	59.0	59.0
Total Split (%)	24.5%	23.6%	23.6%	11.8%	10.9%	10.9%	53.6%	10.9%	53.6%	53.6%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	23.0	20.7	20.7	10.3	8.0	8.0	55.0	8.0	55.0	55.0
Actuated g/C Ratio	0.21	0.19	0.19	0.09	0.07	0.07	0.50	0.07	0.50	0.50
v/c Ratio	1.05	0.72	0.40	0.66	1.00	0.45	1.02	0.83	0.92	0.08
Control Delay	103.0	48.7	23.9	69.0	90.5	55.0	52.4	76.9	32.4	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.0	48.7	23.9	69.0	90.5	55.0	52.4	76.9	32.4	5.3
LOS	F	D	C	E	F	D	D	E	C	A
Approach Delay		66.1			84.8		52.5		35.3	
Approach LOS		E			F		D		D	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Natural Cycle: 120
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.05
 Intersection Signal Delay: 49.9
 Intersection LOS: D
 Intersection Capacity Utilization 93.3%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 1353: Perry Rd & FM 1960



Timings
1353: Perry Rd & FM 1960

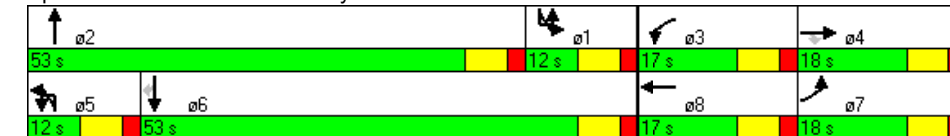
2019 PM
Baseline

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↖	↗	↖	↗	↖
Volume (vph)	239	156	122	166	316	160	2281	75	2277	206
Turn Type	Prot	Perm	Perm	Prot	Prot	Prot	Prot	Prot	Perm	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phases	7	4	4	3	8	5	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	15.0	5.0	14.5	14.5
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	22.0	12.0	21.0	21.0
Total Split (s)	18.0	18.0	18.0	17.0	17.0	12.0	53.0	12.0	53.0	53.0
Total Split (%)	18.0%	18.0%	18.0%	17.0%	17.0%	12.0%	53.0%	12.0%	53.0%	53.0%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	14.0	14.0	14.0	13.0	13.0	8.0	49.0	8.0	49.0	49.0
Actuated g/C Ratio	0.14	0.14	0.14	0.13	0.13	0.08	0.49	0.08	0.49	0.49
v/c Ratio	1.05	0.34	0.42	0.78	1.09	0.72	1.01	0.56	0.99	0.26
Control Delay	113.6	41.1	15.9	66.2	104.6	60.4	47.2	52.7	42.5	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	113.6	41.1	15.9	66.2	104.6	60.4	47.2	52.7	42.5	4.0
LOS	F	D	B	E	F	E	D	D	D	A
Approach Delay		68.6			94.8		48.1		40.0	
Approach LOS		E			F		D		D	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Natural Cycle: 110
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.09
 Intersection Signal Delay: 51.2
 Intersection LOS: D
 Intersection Capacity Utilization 89.8%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 1353: Perry Rd & FM 1960



Timings
1441: Mills Rd & FM 1960

2019 AM
Baseline

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕	↔↔	↕↕	↔↔	↕↕	↔↔	↔↔	↕↕	↔↔
Volume (vph)	335	422	62	61	94	2452	113	193	2319	152
Turn Type	Prot		Prot		Prot		Perm	Prot		Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phases	7	4	3	8	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.1	22.1	15.0	15.0	10.0	35.0	35.0	15.0	40.0	40.0
Total Split (s)	22.1	22.1	15.0	15.0	11.0	57.9	57.9	15.0	61.9	61.9
Total Split (%)	20.1%	20.1%	13.6%	13.6%	10.0%	52.6%	52.6%	13.6%	56.3%	56.3%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	2.5	2.5	2.5	2.5	1.6	1.6	1.6	1.6	1.6	1.6
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
Act Effct Green (s)	17.0	19.7	9.6	9.8	7.0	54.3	54.3	10.7	58.0	58.0
Actuated g/C Ratio	0.16	0.18	0.09	0.09	0.06	0.50	0.50	0.10	0.54	0.54
v/c Ratio	0.67	0.77	0.22	0.36	0.87	1.04	0.15	0.62	0.92	0.18
Control Delay	49.7	51.5	47.8	28.2	84.5	57.1	5.7	55.4	30.2	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.7	51.5	47.8	28.2	84.5	57.1	5.7	55.4	30.2	3.9
LOS	D	D	D	C	F	E	A	E	C	A
Approach Delay		50.7		35.0		56.7			30.5	
Approach LOS		D		C		E			C	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 107.8
 Natural Cycle: 110
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 1.04
 Intersection Signal Delay: 44.4
 Intersection LOS: D
 Intersection Capacity Utilization 82.3%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 1441: Mills Rd & FM 1960



Timings
1441: Mills Rd & FM 1960

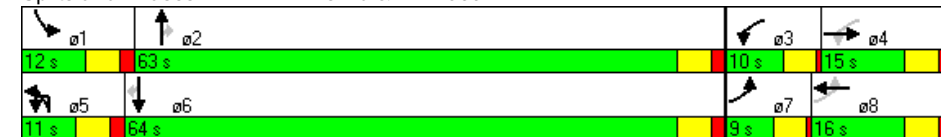
2019 PM
Baseline

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕	↔↔	↕↕	↔↔	↕↕	↔↔	↔↔	↕↕	↔↔
Volume (vph)	205	215	238	210	62	2476	115	130	2305	386
Turn Type	D.P+P		D.P+P		Prot		Perm	Prot		Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	8		4				2			6
Detector Phases	7	4	3	8	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	15.0	8.0	15.0	10.0	45.0	45.0	12.0	45.0	45.0
Total Split (s)	9.0	15.0	10.0	16.0	11.0	63.0	63.0	12.0	64.0	64.0
Total Split (%)	9.0%	15.0%	10.0%	16.0%	11.0%	63.0%	63.0%	12.0%	64.0%	64.0%
Yellow Time (s)	3.5	3.6	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	0.5	2.5	0.5	2.5	1.6	1.6	1.6	1.6	1.6	1.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max
Act Effct Green (s)	17.0	11.0	17.0	12.0	7.0	59.0	59.0	8.0	60.0	60.0
Actuated g/C Ratio	0.17	0.11	0.17	0.12	0.07	0.59	0.59	0.08	0.60	0.60
v/c Ratio	0.71	0.64	0.68	0.70	0.98dl	0.90	0.13	0.51	0.82	0.38
Control Delay	47.9	49.8	44.8	45.4	68.7	23.1	2.1	51.2	18.7	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.9	49.8	44.8	45.4	68.7	23.1	2.1	51.2	18.7	2.1
LOS	D	D	D	D	E	C	A	D	B	A
Approach Delay		48.9		45.2		25.0			17.9	
Approach LOS		D		D		C			B	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Natural Cycle: 90
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 25.2
 Intersection LOS: C
 Intersection Capacity Utilization 79.1%
 ICU Level of Service D
 Analysis Period (min) 15
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1441: Mills Rd & FM 1960



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2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

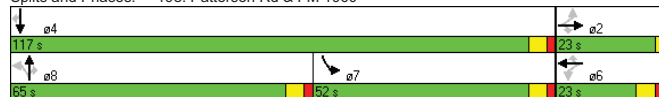
Timings
198: Patterson Rd & FM 1960

SH 6/FM 1960
2035 AM with improvements

Lane Group	WBL	WBT	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations		↔	↔	↕	↕	↔	↔	
Volume (vph)	135	0	503	1889	172	522	2570	
Turn Type	Perm		Perm		Perm	Prot		
Protected Phases		6		8		7	4	2
Permitted Phases	6		6		8			
Detector Phases	6	6	6	8	8	7	4	
Minimum Initial (s)	5.0	5.0	5.0	7.0	7.0	3.0	7.0	4.0
Minimum Split (s)	20.0	20.0	20.0	40.0	40.0	20.0	60.0	20.0
Total Split (s)	23.0	23.0	23.0	65.0	65.0	52.0	117.0	23.0
Total Split (%)	16.4%	16.4%	16.4%	46.4%	46.4%	37.1%	83.6%	16%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0
Lead/Lag				Lead	Lead		Lag	
Lead-Lag Optimize?				Yes	Yes		Yes	
Recall Mode	None	None	None	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	18.2	18.2	18.2	61.8	61.8	48.0	113.8	
Actuated g/C Ratio	0.13	0.13	0.13	0.44	0.44	0.34	0.81	
v/c Ratio	0.80	0.88	0.91	0.24	0.24	0.93	0.68	
Control Delay	89.4	25.3	44.2	9.4	68.2	6.5		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	89.4	25.3	44.2	9.4	68.2	6.5		
LOS	F	C	D	A	E	A		
Approach Delay	38.9		41.3			16.9		
Approach LOS	D		D			B		

Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green
Natural Cycle:	100
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.93
Intersection Signal Delay:	28.0
Intersection Capacity Utilization:	82.9%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 198: Patterson Rd & FM 1960



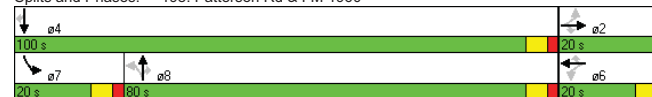
Timings
198: Patterson Rd & FM 1960

SH 6/FM 1960
2035 PM with improvements

Lane Group	WBL	WBT	WBR	NBT	NBR	SBL	SBT	ø2
Lane Configurations		↔	↔	↕	↕	↔	↔	
Volume (vph)	252	0	312	3341	49	43	1399	
Turn Type	Perm		Perm		Perm	Prot		
Protected Phases		6		8		7	4	2
Permitted Phases	6		6		8			
Detector Phases	6	6	6	8	8	7	4	
Minimum Initial (s)	5.0	5.0	5.0	7.0	7.0	3.0	7.0	4.0
Minimum Split (s)	20.0	20.0	20.0	40.0	40.0	20.0	60.0	20.0
Total Split (s)	20.0	20.0	20.0	80.0	80.0	20.0	100.0	20.0
Total Split (%)	16.7%	16.7%	16.7%	66.7%	66.7%	16.7%	83.3%	17%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0
Lead/Lag				Lag	Lag		Lead	
Lead-Lag Optimize?				Yes	Yes		Yes	
Recall Mode	None	None	None	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	16.0	16.0	16.0	83.8	83.8	10.5	96.0	
Actuated g/C Ratio	0.13	0.13	0.13	0.70	0.70	0.09	0.80	
v/c Ratio	1.46	0.94	1.02	0.05	0.30	0.37		
Control Delay	270.2	59.2	41.0	3.4	55.5	3.7		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	270.2	59.2	41.0	3.4	55.5	3.7		
LOS	F	E	D	A	E	A		
Approach Delay	153.5		40.4			5.3		
Approach LOS	F		D			A		

Intersection Summary	
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green
Natural Cycle:	150
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.46
Intersection Signal Delay:	42.9
Intersection Capacity Utilization:	90.5%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 198: Patterson Rd & FM 1960



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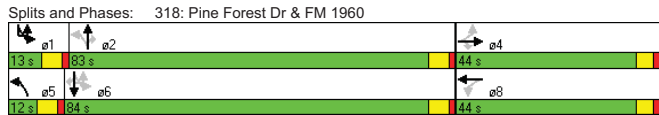
2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings SH 6/FM 1960
318: Pine Forest Dr & FM 1960 2035 AM with improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↖	↗	↘	↖	↗	↘	↖
Volume (vph)	192	59	885	17	17	117	1386	17	77	8	2964	11
Turn Type	Perm		Perm	Perm		pm+pt		Perm	pm+pt	pm+pt		Perm
Protected Phases		4			8	5	2		1	1	6	
Permitted Phases	4		4	8		2		2	6	6		6
Detector Phases	4	4	4	8	8	5	2	2	1	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	12.0	32.0	32.0	12.0	12.0	32.0	32.0
Total Split (s)	44.0	44.0	44.0	44.0	44.0	12.0	83.0	83.0	13.0	13.0	84.0	84.0
Total Split (%)	31.4%	31.4%	31.4%	31.4%	31.4%	8.6%	59.3%	59.3%	9.3%	9.3%	60.0%	60.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min	None
Act Effect Green (s)	40.0	40.0	40.0	40.0	40.0	87.1	79.1	79.1	88.9	80.0	80.0	80.0
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.29	0.62	0.56	0.56	0.64	0.57	0.57	0.57
v/c Ratio	0.53	1.10	0.99	0.26	0.82	0.52	0.02	0.40	1.11	0.01	0.01	0.01
Control Delay	48.1	110.4	79.8	31.0	65.9	19.6	5.3	14.0	84.3	8.6	8.6	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	110.4	79.8	31.0	65.9	19.6	5.3	14.0	84.3	8.6	8.6	8.6
LOS	D	F	E	C	E	B	A	B	F	A	A	A
Approach Delay		87.9		31.0		23.0				82.0		
Approach LOS		F		C		C				F		

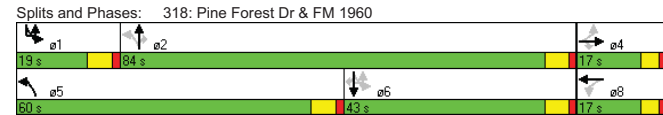
Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	150
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.11
Intersection Signal Delay:	67.2
Intersection Capacity Utilization:	107.1%
ICU Level of Service:	G
Analysis Period (min):	15



Timings SH 6/FM 1960
318: Pine Forest Dr & FM 1960 2035 PM with improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↖	↗	↘	↖	↗	↘	↖
Volume (vph)	19	10	173	25	17	619	2715	56	153	5	1172	18
Turn Type	Perm		Perm	Perm		pm+pt		Perm	pm+pt	pm+pt		Perm
Protected Phases		4			8	5	2		1	1	6	
Permitted Phases	4		4	8		2		2	6	6		6
Detector Phases	4	4	4	8	8	5	2	2	1	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	12.0	32.0	32.0	12.0	12.0	32.0	32.0
Total Split (s)	17.0	17.0	17.0	17.0	17.0	60.0	84.0	84.0	19.0	19.0	43.0	43.0
Total Split (%)	14.2%	14.2%	14.2%	14.2%	14.2%	50.0%	70.0%	70.0%	15.8%	15.8%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min	None
Act Effect Green (s)	10.7	10.7	10.7	10.7	10.7	101.3	84.3	84.3	65.7	52.7	52.7	52.7
Actuated g/C Ratio	0.09	0.09	0.09	0.09	0.09	0.84	0.70	0.70	0.55	0.44	0.44	0.44
v/c Ratio	0.17	0.47	0.43	0.44	0.91	0.83	0.05	0.62	0.57	0.03	0.03	0.03
Control Delay	52.5	19.8	16.1	58.9	44.0	16.2	2.2	39.0	28.7	10.8	10.8	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.5	19.8	16.1	58.9	44.0	16.2	2.2	39.0	28.7	10.8	10.8	10.8
LOS	D	B	B	E	D	B	A	D	C	B	B	B
Approach Delay		21.3		58.9		21.0				29.6		
Approach LOS		C		E		C				C		

Intersection Summary	
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.91
Intersection Signal Delay:	23.7
Intersection Capacity Utilization:	80.5%
ICU Level of Service:	D
Analysis Period (min):	15



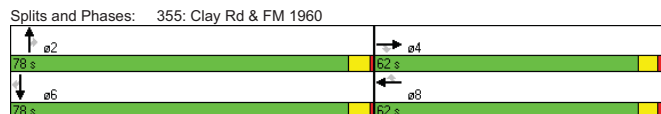
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**2035 PROPOSED NETWORK ANALYSIS
(Nov. 30, 2011)**

Timings SH 6/FM 1960
355: Clay Rd & FM 1960 2035 AM with improvements

	→	↘	←	↙	↑	↗	↓	↘
Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↑↑	↑	↑↑	↑	↑↑↑	↑	↑↑↑	↑
Volume (vph)	1708	215	498	403	1066	336	3233	616
Turn Type	Perm		Perm		Perm	Perm		Perm
Protected Phases	4		8		2		6	
Permitted Phases		4		8		2		6
Detector Phases	4	4	8	8	2	2	6	6
Minimum Initial (s)	13.0	13.0	7.5	7.5	15.5	15.5	19.5	19.5
Minimum Split (s)	31.0	31.0	13.0	13.0	23.0	23.0	25.0	25.0
Total Split (s)	62.0	62.0	62.0	62.0	78.0	78.0	78.0	78.0
Total Split (%)	44.3%	44.3%	44.3%	44.3%	55.7%	55.7%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0
Lead/Lag	Lead-Lag Optimize?							
Recall Mode	None	None	Max	Max	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	58.0	58.0	58.0	58.0	74.0	74.0	74.0	74.0
Actuated g/C Ratio	0.41	0.41	0.41	0.41	0.53	0.53	0.53	0.53
v/c Ratio	1.27	0.36	0.37	0.63	0.43	0.44	1.31	0.72
Control Delay	161.1	30.2	29.3	32.9	20.8	22.1	171.2	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	161.1	30.2	29.3	32.9	20.8	22.1	171.2	22.3
LOS	F	C	C	C	C	C	F	C
Approach Delay	146.4		30.9		21.1		147.3	
Approach LOS	F		C		C		F	

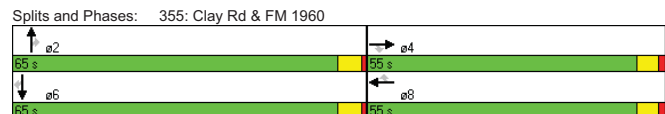
Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	150
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.31
Intersection Signal Delay:	112.2
Intersection Capacity Utilization:	116.3%
ICU Level of Service:	H
Intersection LOS:	F
Analysis Period (min):	15



Timings SH 6/FM 1960
355: Clay Rd & FM 1960 2035 PM with improvements

	→	↘	←	↙	↑	↗	↓	↘
Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↑↑	↑	↑↑	↑	↑↑↑	↑	↑↑↑	↑
Volume (vph)	1159	252	1458	724	2790	445	1549	631
Turn Type	Perm		Perm		Perm	Perm		Perm
Protected Phases	4		8		2		6	
Permitted Phases		4		8		2		6
Detector Phases	4	4	8	8	2	2	6	6
Minimum Initial (s)	13.0	13.0	7.5	7.5	15.5	15.5	19.5	19.5
Minimum Split (s)	31.0	31.0	13.0	13.0	23.0	23.0	25.0	25.0
Total Split (s)	55.0	55.0	55.0	55.0	65.0	65.0	65.0	65.0
Total Split (%)	45.8%	45.8%	45.8%	45.8%	54.2%	54.2%	54.2%	54.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0
Lead/Lag	Lead-Lag Optimize?							
Recall Mode	None	None	Max	Max	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	51.0	51.0	51.0	51.0	61.0	61.0	61.0	61.0
Actuated g/C Ratio	0.42	0.42	0.42	0.42	0.51	0.51	0.51	0.51
v/c Ratio	0.84	0.40	1.05	1.17	1.17	0.59	0.65	0.85
Control Delay	37.0	25.0	72.9	124.3	111.4	23.6	23.2	37.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.0	25.0	72.9	124.3	111.4	23.6	23.2	37.2
LOS	D	C	E	F	F	C	C	D
Approach Delay	34.9		90.0		99.3		27.2	
Approach LOS	C		F		F		C	

Intersection Summary	
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	120
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.17
Intersection Signal Delay:	69.5
Intersection Capacity Utilization:	105.4%
ICU Level of Service:	G
Intersection LOS:	E
Analysis Period (min):	15



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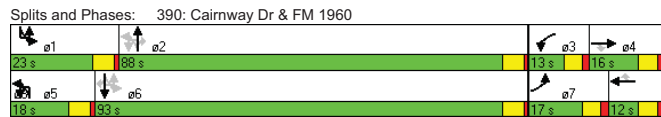
2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings SH 6/FM 1960
390: Cairnway Dr & FM 1960 2035 AM with improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↔	↕	↔	↔	↔
Volume (vph)	149	125	161	123	39	56	238	13	1222	54	126	99
Turn Type	Prot		Perm	Prot		Perm	pm+pt	pm+pt		Perm	pm+pt	pm+pt
Protected Phases	7	4		3	8		5	5	2		1	1
Permitted Phases			4			8	2	2		2	6	6
Detector Phases	7	4	4	3	8	8	5	5	2	2	1	1
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	17.0	17.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	25.5	25.5	11.0	11.0
Total Split (s)	17.0	16.0	16.0	13.0	12.0	18.0	18.0	18.0	88.0	88.0	23.0	23.0
Total Split (%)	12.1%	11.4%	11.4%	9.3%	8.6%	8.6%	12.9%	12.9%	62.9%	62.9%	16.4%	16.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	C-Min	C-Min	None	None
Act Effct Green (s)	15.4	12.0	12.0	9.0	7.8	7.8	103.5	89.5	89.5	89.5	102.3	102.3
Actuated g/C Ratio	0.11	0.09	0.09	0.06	0.06	0.06	0.74	0.64	0.64	0.64	0.73	0.73
v/c Ratio	0.84	0.85	1.18	1.18	0.41	0.42	1.17	0.41	0.06	0.71	0.71	0.71
Control Delay	93.7	102.9	180.1	193.4	75.8	23.7	149.8	13.1	2.7	2.7	20.6	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.7	102.9	180.1	193.4	75.8	23.7	149.8	13.1	2.7	2.7	20.6	20.6
LOS	F	F	F	F	E	C	F	B	A	A	C	C
Approach Delay		128.3			128.9			35.2				
Approach LOS		F			F			D				

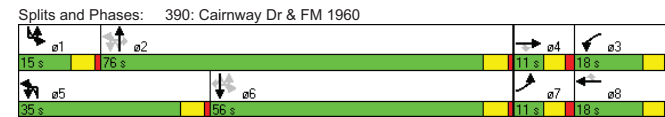
Intersection Summary
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.18
 Intersection Signal Delay: 80.6 Intersection LOS: F
 Intersection Capacity Utilization 109.9% ICU Level of Service H
 Analysis Period (min) 15



Timings SH 6/FM 1960
390: Cairnway Dr & FM 1960 2035 PM with improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↔	↕	↔	↔	↔
Volume (vph)	91	36	58	148	95	223	407	62	2875	152	111	107
Turn Type	Prot		Perm	Prot		Perm	pm+pt	pm+pt		Perm	pm+pt	pm+pt
Protected Phases	7	4		3	8		5	5	2		1	1
Permitted Phases			4			8	2	2		2	6	6
Detector Phases	7	4	4	3	8	8	5	5	2	2	1	1
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	17.0	17.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	25.5	25.5	11.0	11.0
Total Split (s)	11.0	11.0	11.0	18.0	18.0	18.0	35.0	35.0	76.0	76.0	15.0	15.0
Total Split (%)	9.2%	9.2%	9.2%	15.0%	15.0%	15.0%	29.2%	29.2%	63.3%	63.3%	12.5%	12.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	C-Min	C-Min	None	None
Act Effct Green (s)	7.0	7.0	7.0	16.2	14.0	14.0	87.0	72.0	72.0	72.0	63.0	63.0
Actuated g/C Ratio	0.06	0.06	0.06	0.14	0.12	0.12	0.72	0.60	0.60	0.60	0.52	0.52
v/c Ratio	0.96	0.36	0.41	0.67	0.47	1.08	0.98	1.02	0.17	1.06	1.06	1.06
Control Delay	135.4	63.9	21.9	65.4	57.5	122.1	70.5	47.3	3.8	3.8	112.4	112.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	135.4	63.9	21.9	65.4	57.5	122.1	70.5	47.3	3.8	3.8	112.4	112.4
LOS	F	E	C	E	E	F	E	D	A	A	F	F
Approach Delay		86.0			90.9			48.5				
Approach LOS		F			F			D				

Intersection Summary
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.08
 Intersection Signal Delay: 50.3 Intersection LOS: D
 Intersection Capacity Utilization 99.8% ICU Level of Service F
 Analysis Period (min) 15



****REPLACED****

2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings
390: Cairnway Dr & FM 1960

SH 6/FM 1960
2035 AM with improvements

Lane Group	SBT	SBR
Lane Configurations	↑↑↑	↑
Volume (vph)	3412	34
Turn Type	Perm	
Protected Phases	6	
Permitted Phases	6	
Detector Phases	6	6
Minimum Initial (s)	17.0	17.0
Minimum Split (s)	27.5	27.5
Total Split (s)	93.0	93.0
Total Split (%)	66.4%	66.4%
Yellow Time (s)	4.5	4.5
All-Red Time (s)	1.0	1.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Recall Mode	C-Min	C-Min
Act Effct Green (s)	89.0	89.0
Actuated g/C Ratio	0.64	0.64
v/c Ratio	1.15	0.04
Control Delay	96.4	5.4
Queue Delay	0.0	0.0
Total Delay	96.4	5.4
LOS	F	A
Approach Delay	90.9	
Approach LOS	F	

Intersection Summary

Timings
390: Cairnway Dr & FM 1960

SH 6/FM 1960
2035 PM with improvements

Lane Group	SBT	SBR
Lane Configurations	↑↑↑	↑
Volume (vph)	1636	109
Turn Type	Perm	
Protected Phases	6	
Permitted Phases	6	
Detector Phases	6	6
Minimum Initial (s)	17.0	17.0
Minimum Split (s)	27.5	27.5
Total Split (s)	56.0	56.0
Total Split (%)	46.7%	46.7%
Yellow Time (s)	4.5	4.5
All-Red Time (s)	1.0	1.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Recall Mode	C-Min	C-Min
Act Effct Green (s)	52.0	52.0
Actuated g/C Ratio	0.43	0.43
v/c Ratio	0.81	0.16
Control Delay	33.2	5.3
Queue Delay	0.0	0.0
Total Delay	33.2	5.3
LOS	C	A
Approach Delay	40.5	
Approach LOS	D	

Intersection Summary

****REPLACED****

2035 PROPOSED NETWORK ANALYSIS

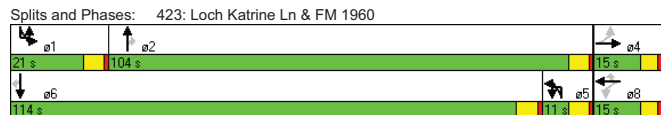
(Nov. 30, 2011)

Timings SH 6/FM 1960
 423: Loch Katrine Ln & FM 1960 2035 AM with improvements

	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔		↔		↔		↔		↔		↔	
Volume (vph)	54	14	43	7	48	10	1517	42	13	3578	31	
Turn Type	Perm		Perm		Perm	Prot		Perm	Prot		Perm	
Protected Phases		4		8		8		5	2		1	6
Permitted Phases	4		8		8		2		2		1	6
Detector Phases	4		8		8		5		2		1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	26.0	26.0	11.0	26.0	26.0	26.0
Total Split (s)	15.0	15.0	15.0	15.0	15.0	11.0	104.0	104.0	21.0	114.0	114.0	114.0
Total Split (%)	10.7%	10.7%	10.7%	10.7%	10.7%	7.9%	74.3%	74.3%	15.0%	81.4%	81.4%	81.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag						Lag	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	11.1	11.1	11.1	11.1	7.0	101.9	101.9	15.0	112.1	112.1	112.1	112.1
Actuated g/C Ratio	0.08	0.08	0.08	0.08	0.05	0.73	0.73	0.11	0.80	0.80	0.80	0.80
v/c Ratio	0.87	0.62	0.30	0.63	0.45	0.04	0.64	0.96	0.03	0.03	0.03	0.03
Control Delay	106.1		91.2	19.9	94.6	8.3	1.6	75.1	20.1	1.9		
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	106.1		91.2	19.9	94.6	8.3	1.6	75.1	20.1	1.9		
LOS	F		F	B	F	A	A	E	C	A		
Approach Delay	106.1		56.5			10.9			21.6			
Approach LOS	F		E			B			C			

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 20.7 Intersection LOS: C
 Intersection Capacity Utilization 95.7% ICU Level of Service F
 Analysis Period (min) 15

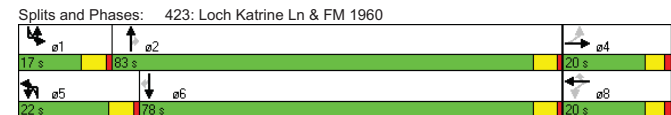


Timings SH 6/FM 1960
 423: Loch Katrine Ln & FM 1960 2035 PM with improvements

	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔		↔		↔		↔		↔		↔	
Volume (vph)	113	14	67	34	108	48	3428	79	38	1979	3	
Turn Type	Perm		Perm		Perm	Prot		Perm	Prot		Perm	
Protected Phases		4		8		8		5	2		1	6
Permitted Phases	4		8		8		2		2		1	6
Detector Phases	4		8		8		5		2		1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	26.0	26.0	11.0	26.0	26.0	26.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	22.0	83.0	83.0	17.0	78.0	78.0	78.0
Total Split (%)	16.7%	16.7%	16.7%	16.7%	16.7%	18.3%	69.2%	69.2%	14.2%	65.0%	65.0%	65.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	16.0	16.0	16.0	16.0	15.5	79.0	79.0	13.0	76.5	76.5	76.5	76.5
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.66	0.66	0.11	0.64	0.64	0.64	0.64	0.64
v/c Ratio	1.13	0.57	0.52	0.64	1.11	0.08	1.18	0.66	0.00	0.00	0.00	0.00
Control Delay	156.2		61.6	50.7	62.3	77.7	4.5	168.9	15.3	6.7		
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	156.2		61.6	50.7	62.3	77.7	4.5	168.9	15.3	6.7		
LOS	F		E	D	E	E	A	F	B	A		
Approach Delay	156.2		56.0			75.5			29.9			
Approach LOS	F		E			E			C			

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.18
 Intersection Signal Delay: 60.8 Intersection LOS: E
 Intersection Capacity Utilization 106.6% ICU Level of Service G
 Analysis Period (min) 15



****REPLACED****

2035 PROPOSED NETWORK ANALYSIS

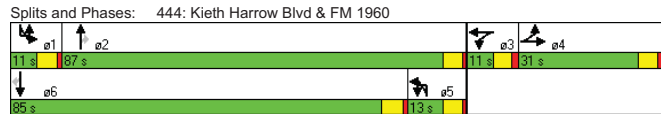
(Nov. 30, 2011)

Timings SH 6/FM 1960
 444: Kieth Harrow Blvd & FM 1960 2035 AM with improvements

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↑↑↑	↑	↔	↑↑↑	↔
Volume (vph)	386	46	25	84	1292	10	31	3000	153
Turn Type	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4	3	5	2		1	6	
Permitted Phases						2			6
Detector Phases	4	4	3	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	1.0	5.0	17.0	17.0	5.0	17.0	17.0
Minimum Split (s)	11.0	11.0	11.0	11.0	23.0	23.0	11.0	23.0	23.0
Total Split (s)	31.0	31.0	11.0	13.0	87.0	87.0	11.0	85.0	85.0
Total Split (%)	22.1%	22.1%	7.9%	9.3%	62.1%	62.1%	7.9%	60.7%	60.7%
Yellow Time (s)	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	27.0	27.0	7.0	9.0	85.2	85.2	7.0	81.0	81.0
Actuated g/C Ratio	0.19	0.19	0.05	0.06	0.61	0.61	0.05	0.58	0.58
v/c Ratio	1.08	1.60dr	0.70	1.19dl	0.45	0.01	0.36	1.11	0.17
Control Delay	125.4	106.3	51.7	130.5	15.8	5.5	70.5	83.7	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	125.4	106.3	51.7	130.5	15.8	5.5	70.5	83.7	6.5
LOS	F	F	D	F	B	A	E	F	A
Approach Delay		112.9	51.7		31.5			79.8	
Approach LOS		F	D		C			E	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.11
 Intersection Signal Delay: 71.5 Intersection LOS: E
 Intersection Capacity Utilization 100.0% ICU Level of Service F
 Analysis Period (min) 15
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

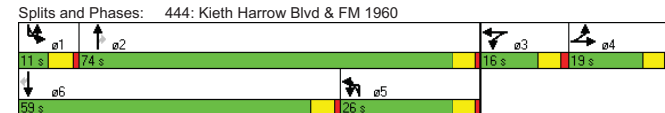


Timings SH 6/FM 1960
 444: Kieth Harrow Blvd & FM 1960 2035 PM with improvements

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↑↑↑	↑	↔	↑↑↑	↔
Volume (vph)	343	76	139	312	2671	46	97	1736	304
Turn Type	Split			Prot		Perm	Prot		Perm
Protected Phases	4	4	3	5	2		1	6	
Permitted Phases						2			6
Detector Phases	4	4	3	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	1.0	5.0	17.0	17.0	5.0	17.0	17.0
Minimum Split (s)	11.0	11.0	11.0	11.0	23.0	23.0	11.0	23.0	23.0
Total Split (s)	19.0	19.0	16.0	26.0	74.0	74.0	11.0	59.0	59.0
Total Split (%)	15.8%	15.8%	13.3%	21.7%	61.7%	61.7%	9.2%	49.2%	49.2%
Yellow Time (s)	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	15.0	15.0	12.0	23.5	70.0	70.0	7.0	53.5	53.5
Actuated g/C Ratio	0.12	0.12	0.10	0.20	0.58	0.58	0.06	0.45	0.45
v/c Ratio	1.04	1.02	1.04	0.78	0.98	0.05	0.96	0.83	0.38
Control Delay	125.4	86.6	110.1	55.5	36.9	4.8	111.7	33.1	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	125.4	86.6	110.1	55.5	36.9	4.8	111.7	33.1	4.8
LOS	F	F	F	E	D	A	F	C	A
Approach Delay		98.3	110.1		39.2			35.5	
Approach LOS		F	F		D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.04
 Intersection Signal Delay: 47.6 Intersection LOS: D
 Intersection Capacity Utilization 92.6% ICU Level of Service F
 Analysis Period (min) 15



****REPLACED****

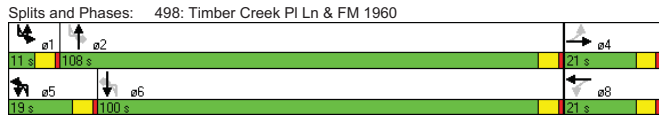
2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings SH 6/FM 1960
498: Timber Creek PI Ln & FM 1960 2035 AM with improvements

Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↔↔		↔↔		↕↕		↕↕		↕↕		↕↕	
Volume (vph)	76	26	123	13	137	34	1580	46	33	51	2999	31
Turn Type	Perm		Perm		D.P+P D.P+P		Perm		D.P+P D.P+P		Perm	
Protected Phases	4	4	8	8	5	5	2	2	2	2	1	6
Permitted Phases	4	4	8	8	5	5	2	2	2	2	1	6
Detector Phases	4	4	8	8	5	5	2	2	2	2	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	26.0	26.0	11.0	11.0	26.0	26.0
Total Split (s)	21.0	21.0	21.0	21.0	19.0	19.0	108.0	108.0	11.0	11.0	100.0	100.0
Total Split (%)	15.0%	15.0%	15.0%	15.0%	13.6%	13.6%	77.1%	77.1%	7.9%	7.9%	71.4%	71.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min	None
Act Effct Green (s)	16.6	16.6	16.6	16.6	111.4	104.4	104.4	111.4	97.3	97.3	63.8	63.8
Actuated g/C Ratio	0.12	0.12	0.12	0.12	0.80	0.75	0.75	0.80	0.70	0.70	0.53	0.53
v/c Ratio	0.84	0.84	0.89	0.89	0.80	0.45	0.04	0.38	0.92	0.03	0.75	0.10
Control Delay	80.2	80.2	60.8	60.8	62.3	7.3	1.3	6.9	24.2	3.2	25.4	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.2	80.2	60.8	60.8	62.3	7.3	1.3	6.9	24.2	3.2	25.4	5.1
LOS	F	F	E	E	A	A	A	A	C	A	C	A
Approach Delay	80.2		60.8		12.4		23.5					
Approach LOS	F		E		B		C					

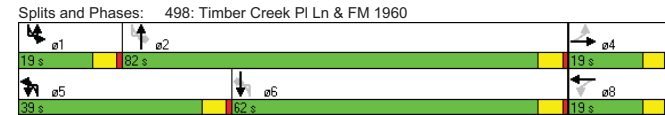
Intersection Summary
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 23.5 Intersection LOS: C
 Intersection Capacity Utilization 94.1% ICU Level of Service F
 Analysis Period (min) 15
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.



Timings SH 6/FM 1960
498: Timber Creek PI Ln & FM 1960 2035 PM with improvements

Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↔↔		↔↔		↕↕		↕↕		↕↕		↕↕	
Volume (vph)	63	10	133	34	272	138	2694	143	54	124	1874	83
Turn Type	Perm		Perm		D.P+P D.P+P		Perm		D.P+P D.P+P		Perm	
Protected Phases	4	4	8	8	5	5	2	2	2	2	1	6
Permitted Phases	4	4	8	8	5	5	2	2	2	2	1	6
Detector Phases	4	4	8	8	5	5	2	2	2	2	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	26.0	26.0	11.0	11.0	26.0	26.0
Total Split (s)	19.0	19.0	19.0	19.0	19.0	19.0	39.0	39.0	82.0	82.0	19.0	62.0
Total Split (%)	15.8%	15.8%	15.8%	15.8%	32.5%	32.5%	68.3%	68.3%	15.8%	15.8%	51.7%	51.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min
Act Effct Green (s)	14.0	14.0	14.0	14.0	94.0	80.6	80.6	94.0	63.8	63.8	26.3	26.3
Actuated g/C Ratio	0.12	0.12	0.12	0.12	0.78	0.67	0.67	0.78	0.53	0.53	0.53	0.53
v/c Ratio	0.48	0.48	0.78	0.78	0.87	0.86	0.14	0.74	0.75	0.10	0.75	0.10
Control Delay	33.8	33.8	47.4	47.4	49.8	19.3	2.1	46.5	25.4	5.1	25.4	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.8	33.8	47.4	47.4	49.8	19.3	2.1	46.5	25.4	5.1	25.4	5.1
LOS	C	C	D	D	D	B	A	D	C	A	C	A
Approach Delay	33.8		47.4		22.4		26.3					
Approach LOS	C		D		C		C					

Intersection Summary
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 25.3 Intersection LOS: C
 Intersection Capacity Utilization 87.9% ICU Level of Service E
 Analysis Period (min) 15



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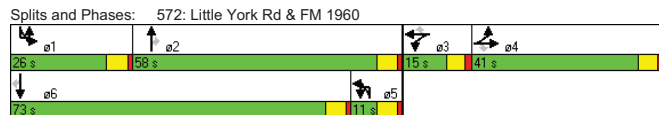
2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings SH 6/FM 1960
572: Little York Rd & FM 1960 2035 AM with improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	806	1147	103	246	298	149	101	1422	221	339	2220	373
Turn Type	Split	Perm	Split	Perm	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm
Protected Phases	4	4	4	3	3	3	5	2	2	1	6	6
Permitted Phases												
Detector Phases	4	4	4	3	3	3	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	13.0	13.0	5.0	13.0	13.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	19.0	19.0	11.0	19.0	19.0
Total Split (s)	41.0	41.0	41.0	15.0	15.0	15.0	11.0	58.0	58.0	26.0	73.0	73.0
Total Split (%)	29.3%	29.3%	29.3%	10.7%	10.7%	10.7%	7.9%	41.4%	41.4%	18.6%	52.1%	52.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min	C-Min
Act Effct Green (s)	37.0	37.0	37.0	11.0	11.0	11.0	7.0	55.6	55.6	20.4	69.0	69.0
Actuated g/C Ratio	0.26	0.26	0.26	0.08	0.08	0.08	0.05	0.40	0.40	0.15	0.49	0.49
v/c Ratio	0.97	0.93	0.24	0.99	0.81	0.59	0.69	0.77	0.33	0.75	0.96	0.45
Control Delay	73.4	62.7	19.3	115.6	79.6	18.1	85.6	40.0	10.0	67.1	45.6	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.4	62.7	19.3	115.6	79.6	18.1	85.6	40.0	10.0	67.1	45.6	9.4
LOS	E	E	B	F	E	B	F	D	A	E	D	A
Approach Delay	64.7			79.1			39.0			43.5		
Approach LOS	E			E			D			D		

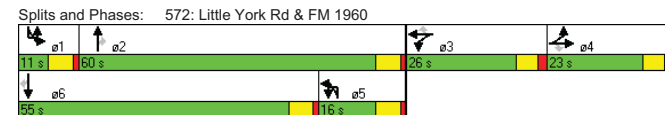
Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	120
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.99
Intersection Signal Delay:	51.6
Intersection LOS:	D
Intersection Capacity Utilization:	89.6%
ICU Level of Service:	E
Analysis Period (min):	15



Timings SH 6/FM 1960
572: Little York Rd & FM 1960 2035 PM with improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	487	355	120	365	837	271	186	2084	209	152	1581	583
Turn Type	Split	Perm	Split	Perm	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm
Protected Phases	4	4	4	3	3	3	5	2	2	1	6	6
Permitted Phases												
Detector Phases	4	4	4	3	3	3	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	13.0	13.0	5.0	13.0	13.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	19.0	19.0	11.0	19.0	19.0
Total Split (s)	23.0	23.0	23.0	26.0	26.0	26.0	16.0	60.0	60.0	11.0	55.0	55.0
Total Split (%)	19.2%	19.2%	19.2%	21.7%	21.7%	21.7%	13.3%	50.0%	50.0%	9.2%	45.8%	45.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min	C-Min
Act Effct Green (s)	19.0	19.0	19.0	22.0	22.0	22.0	13.1	56.0	56.0	7.0	49.9	49.9
Actuated g/C Ratio	0.16	0.16	0.16	0.18	0.18	0.18	0.11	0.47	0.47	0.06	0.42	0.42
v/c Ratio	0.97	0.48	0.40	0.63	0.98	0.85	0.70	0.95	0.27	0.88	0.81	0.71
Control Delay	82.9	48.3	20.6	50.4	73.2	59.0	63.0	41.6	6.4	94.9	34.5	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.9	48.3	20.6	50.4	73.2	59.0	63.0	41.6	6.4	94.9	34.5	14.1
LOS	F	D	C	D	E	E	E	D	A	F	C	B
Approach Delay	62.3			64.9			40.8			33.6		
Approach LOS	E			E			D			C		

Intersection Summary	
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	110
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.98
Intersection Signal Delay:	46.2
Intersection LOS:	D
Intersection Capacity Utilization:	88.9%
ICU Level of Service:	E
Analysis Period (min):	15



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2035 PROPOSED NETWORK ANALYSIS

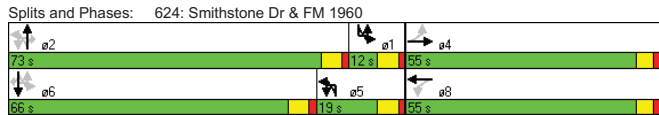
(Nov. 30, 2011)

Timings SH 6/FM 1960
624: Smithstone Dr & FM 1960 2035 AM with improvements

Lane Group	EBL	EBT	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	18	9	0	105	150	2501	11	87	2	2277	11
Turn Type	Perm			pm+pt	pm+pt		Perm	pm+pt	pm+pt		Perm
Protected Phases		4	8		5	2		1	1	6	
Permitted Phases	4			2	2		2	6	6		6
Detector Phases	4	4	8	5	5	2	2	1	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	20.0	5.0	5.0	20.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	12.0	12.0	27.0	12.0	12.0	27.0	27.0	27.0
Total Split (s)	55.0	55.0	55.0	19.0	19.0	73.0	12.0	12.0	66.0	66.0	66.0
Total Split (%)	39.3%	39.3%	39.3%	13.6%	13.6%	52.1%	8.6%	8.6%	47.1%	47.1%	47.1%
Yellow Time (s)	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag				Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min
Act Effct Green (s)	51.0	51.0	51.0	81.0	69.0	69.0	70.0	62.0	62.0	62.0	62.0
Actuated g/C Ratio	0.36	0.36	0.36	0.58	0.49	0.49	0.50	0.44	0.44	0.44	0.44
v/c Ratio	0.04	1.17	0.01	1.14	1.08	0.02	0.63	1.10	0.02	0.02	0.02
Control Delay	29.2	131.4	0.0	148.0	80.2	12.1	58.9	89.1	14.6	14.6	14.6
Queue Delay	13.7	0.0	0.8	0.0	12.9	0.0	9.8	19.1	0.0	0.0	0.0
Total Delay	42.8	131.4	0.8	148.0	93.0	12.1	68.6	108.1	14.6	14.6	14.6
LOS	D	F	A	F	F	B	E	F	B	B	B
Approach Delay		129.0	0.8			97.8			106.2		
Approach LOS		F	A			F			F		

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 37 (26%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.17
 Intersection Signal Delay: 104.7 Intersection LOS: F
 Intersection Capacity Utilization 108.2% ICU Level of Service G
 Analysis Period (min) 15

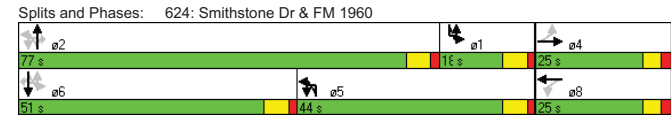


Timings SH 6/FM 1960
624: Smithstone Dr & FM 1960 2035 PM with improvements

Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	64	25	13	9	278	301	2520	17	179	10	1772	32
Turn Type	Perm		Perm		pm+pt	pm+pt		Perm	pm+pt	pm+pt		Perm
Protected Phases		4	8	8	5	5	2	2	6	6	6	6
Permitted Phases	4				2	2		2	6	6		6
Detector Phases	4	4	8	8	5	5	2	2	1	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	12.0	12.0	27.0	27.0	12.0	12.0	27.0	27.0
Total Split (s)	25.0	25.0	25.0	25.0	44.0	44.0	77.0	77.0	18.0	18.0	51.0	51.0
Total Split (%)	20.8%	20.8%	20.8%	20.8%	36.7%	36.7%	64.2%	64.2%	15.0%	15.0%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag					Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min
Act Effct Green (s)	20.2	20.2	20.2	20.2	91.8	73.3	73.3	62.5	48.0	48.0	48.0	48.0
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.76	0.61	0.61	0.52	0.40	0.40	0.40	0.40
v/c Ratio	0.29	0.94	0.34	0.34	0.97	0.88	0.02	0.74	0.95	0.05	0.05	0.05
Control Delay	46.7	59.9	38.1	38.1	63.6	24.2	4.7	49.7	45.8	10.5	10.5	10.5
Queue Delay	148.1	0.0	124.7	124.7	0.0	18.0	0.0	35.8	0.0	0.0	0.0	0.0
Total Delay	194.8	59.9	162.8	162.8	63.6	42.2	4.7	85.5	45.8	10.5	10.5	10.5
LOS	F	E	F	F	E	D	A	F	D	B	B	B
Approach Delay		81.1	162.8	162.8		46.0		49.0				
Approach LOS		F	F	F		D		D				

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 27 (23%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 50.4 Intersection LOS: D
 Intersection Capacity Utilization 97.4% ICU Level of Service F
 Analysis Period (min) 15



****REPLACED****

**2035 PROPOSED NETWORK ANALYSIS
(Nov. 30, 2011)**

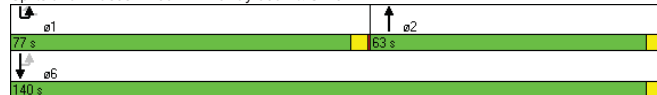
Timings
637: Driveway 3637 & SH 6

SH 6/FM 1960
2035 AM with improvements

	↖	↑	↗	↓
Lane Group	WBR	NBT	SBU	SBT
Lane Configurations	↑	↑↑↑	↓	↑↑↑
Volume (vph)	54	1999	851	2159
Turn Type	custom		pm+pt	
Protected Phases		2	1	6
Permitted Phases	1		6	
Detector Phases	1	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0
Total Split (s)	77.0	63.0	77.0	140.0
Total Split (%)	55.0%	45.0%	55.0%	100.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	73.0	59.0	136.0	140.0
Actuated g/C Ratio	0.52	0.42	0.97	1.00
v/c Ratio	0.07	1.05	0.95	0.46
Control Delay	16.7	86.8	46.9	0.3
Queue Delay	0.0	19.8	17.2	0.0
Total Delay	16.7	106.7	64.1	0.3
LOS	B	F	E	A
Approach Delay		106.7		18.4
Approach LOS		F		B

Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
Natural Cycle:	70
Control Type:	Pretimed
Maximum v/c Ratio:	1.05
Intersection Signal Delay:	53.9
Intersection Capacity Utilization:	100.7%
ICU Level of Service:	G
Intersection LOS:	D
Analysis Period (min):	15

Splits and Phases: 637: Driveway 3637 & SH 6



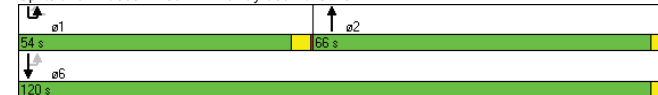
Timings
637: Driveway 3637 & SH 6

SH 6/FM 1960
2035 PM with improvements

	↖	↑	↗	↓
Lane Group	WBR	NBT	SBU	SBT
Lane Configurations	↑	↑↑↑	↓	↑↑↑
Volume (vph)	108	2813	703	2290
Turn Type	custom		pm+pt	
Protected Phases		2	1	6
Permitted Phases	1		6	
Detector Phases	1	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0
Total Split (s)	54.0	66.0	54.0	120.0
Total Split (%)	45.0%	55.0%	45.0%	100.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	50.0	62.0	116.0	120.0
Actuated g/C Ratio	0.42	0.52	0.97	1.00
v/c Ratio	0.17	1.21	0.96	0.49
Control Delay	22.9	128.1	52.2	0.3
Queue Delay	0.0	3.5	0.0	0.0
Total Delay	22.9	131.7	52.2	0.3
LOS	C	F	D	A
Approach Delay		131.7		12.5
Approach LOS		F		B

Intersection Summary	
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	1.21
Intersection Signal Delay:	70.4
Intersection Capacity Utilization:	112.3%
ICU Level of Service:	H
Intersection LOS:	E
Analysis Period (min):	15

Splits and Phases: 637: Driveway 3637 & SH 6



****REPLACED****

2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

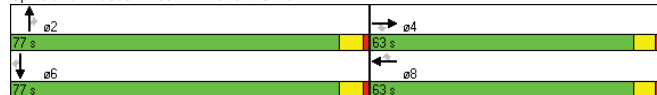
Timings
651: FM 529 & SH 6

SH 6/FM 1960
2035 AM with improvements

	→	↘	←	↙	↑	↗	↓	↖
Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗
Volume (vph)	2508	635	774	535	2650	680	2821	333
Turn Type	Perm		Perm		Perm	Perm		Perm
Protected Phases	4		8		2		6	
Permitted Phases		4		8		2		6
Detector Phases	4	4	8	8	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	12.0	12.0	12.0	12.0
Minimum Split (s)	12.0	12.0	12.0	12.0	19.0	19.0	19.0	19.0
Total Split (s)	63.0	63.0	63.0	63.0	77.0	77.0	77.0	77.0
Total Split (%)	45.0%	45.0%	45.0%	45.0%	55.0%	55.0%	55.0%	55.0%
Yellow Time (s)	4.5	4.5	4.5	4.5	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5
Lead/Lag	Lead-Lag Optimize?							
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	59.0	59.0	59.0	59.0	73.0	73.0	73.0	73.0
Actuated g/C Ratio	0.42	0.42	0.42	0.42	0.52	0.52	0.52	0.52
v/c Ratio	1.27	1.03	0.39	0.87	1.09	0.90	1.16	0.42
Control Delay	161.3	83.7	28.8	52.5	78.8	45.3	93.9	7.1
Queue Delay	0.0	0.0	0.0	0.0	32.4	3.2	26.6	0.0
Total Delay	161.3	83.7	28.8	52.5	111.2	48.5	120.5	7.1
LOS	F	F	C	D	F	D	F	A
Approach Delay	145.7		38.5		98.4		108.5	
Approach LOS	F		D		F		F	

Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	19 (14%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	140
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.27
Intersection Signal Delay:	107.7
Intersection Capacity Utilization:	109.6%
Intersection LOS:	F
ICU Level of Service:	H
Analysis Period (min):	15

Splits and Phases: 651: FM 529 & SH 6



Timings
651: FM 529 & SH 6

SH 6/FM 1960
2035 PM with improvements

	→	↘	←	↙	↑	↗	↓	↖
Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗
Volume (vph)	1242	570	1961	428	3662	352	2561	727
Turn Type	Perm		Perm		Perm	Perm		Perm
Protected Phases	4		8		2		6	
Permitted Phases		4		8		2		6
Detector Phases	4	4	8	8	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	12.0	12.0	12.0	12.0
Minimum Split (s)	12.0	12.0	12.0	12.0	19.0	19.0	19.0	19.0
Total Split (s)	43.0	43.0	43.0	43.0	77.0	77.0	77.0	77.0
Total Split (%)	35.8%	35.8%	35.8%	35.8%	64.2%	64.2%	64.2%	64.2%
Yellow Time (s)	4.5	4.5	4.5	4.5	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5
Lead/Lag	Lead-Lag Optimize?							
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	39.0	39.0	39.0	39.0	73.0	73.0	73.0	73.0
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.61	0.61	0.61	0.61
v/c Ratio	0.82	1.20	1.29	0.90	1.29	0.40	0.90	0.82
Control Delay	42.1	144.5	169.9	61.5	156.2	13.5	8.7	8.8
Queue Delay	0.0	0.0	0.0	0.0	17.5	0.0	7.1	3.2
Total Delay	42.1	144.5	169.9	61.5	173.7	13.5	15.8	12.0
LOS	D	F	F	E	F	B	B	B
Approach Delay	74.3		150.5		159.6		14.9	
Approach LOS	E		F		F		B	

Intersection Summary	
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	110 (92%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	120
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.29
Intersection Signal Delay:	102.9
Intersection Capacity Utilization:	115.3%
Intersection LOS:	F
ICU Level of Service:	H
Analysis Period (min):	15

Splits and Phases: 651: FM 529 & SH 6



****REPLACED****

2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings
664: Driveway 3664 & SH 6

SH 6/FM 1960
2035 AM with improvements

Lane Group	WBR	NBU	NBT	SBT
Lane Configurations	↑	↓	↑↑↑	↑↑↑
Volume (vph)	26	286	2932	2927
Turn Type	custom	pm+pt		
Protected Phases		5	2	6
Permitted Phases	5	2		
Detector Phases	5	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	8.0	20.0	20.0
Total Split (s)	45.0	45.0	140.0	95.0
Total Split (%)	32.1%	32.1%	100.0%	67.9%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	41.0	136.0	140.0	91.0
Actuated g/C Ratio	0.29	0.97	1.00	0.65
v/c Ratio	0.06	0.54	0.64	0.96
Control Delay	22.3	30.6	1.1	32.3
Queue Delay	0.0	0.1	0.0	65.1
Total Delay	22.3	30.7	1.1	97.4
LOS	C	C	A	F
Approach Delay			3.7	97.4
Approach LOS			A	F

Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	0 (0%), Referenced to phase 2:NBTU and 6:SBT, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.96
Intersection Signal Delay:	48.0
Intersection LOS:	D
Intersection Capacity Utilization:	79.1%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 664: Driveway 3664 & SH 6



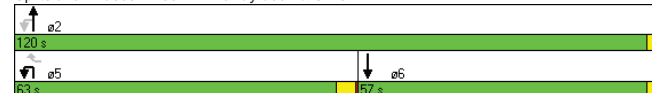
Timings
664: Driveway 3664 & SH 6

SH 6/FM 1960
2035 PM with improvements

Lane Group	WBR	NBU	NBT	SBT
Lane Configurations	↑	↓	↑↑↑	↑↑↑
Volume (vph)	108	1021	2643	2378
Turn Type	custom	pm+pt		
Protected Phases		5	2	6
Permitted Phases	5	2		
Detector Phases	5	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	8.0	20.0	20.0
Total Split (s)	63.0	63.0	120.0	57.0
Total Split (%)	52.5%	52.5%	100.0%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	59.0	116.0	120.0	53.0
Actuated g/C Ratio	0.49	0.97	1.00	0.44
v/c Ratio	0.15	1.19	0.59	1.15
Control Delay	14.0	123.2	0.2	105.7
Queue Delay	0.0	111.5	0.0	6.0
Total Delay	14.0	234.8	0.2	111.7
LOS	B	F	A	F
Approach Delay			63.7	111.7
Approach LOS			E	F

Intersection Summary	
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NBTU and 6:SBT, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	1.19
Intersection Signal Delay:	81.1
Intersection LOS:	F
Intersection Capacity Utilization:	109.2%
ICU Level of Service:	H
Analysis Period (min):	15

Splits and Phases: 664: Driveway 3664 & SH 6



****REPLACED****

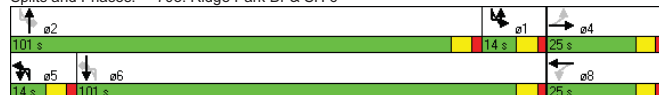
2035 PROPOSED NETWORK ANALYSIS
(Nov. 30, 2011)

Timings SH 6/FM 1960
 703: Ridge Park Dr & SH 6 2035 AM with improvements

Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	88	17	21	5	34	17	2755	5	33	9	2565	25
Turn Type	Perm	Perm	Perm	Perm	D.P+P	D.P+P	Perm	D.P+P	D.P+P	Perm	Perm	Perm
Protected Phases	4	4	8	8	5	5	2	1	1	6	6	6
Permitted Phases	4	4	8	8	6	6	2	2	2	2	2	2
Detector Phases	4	4	8	8	5	5	2	2	1	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	24.0	24.0	5.0	5.0	24.0	24.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	31.0	31.0	12.0	12.0	31.0	31.0
Total Split (s)	25.0	25.0	25.0	25.0	14.0	14.0	101.0	101.0	14.0	14.0	101.0	101.0
Total Split (%)	17.9%	17.9%	17.9%	17.9%	10.0%	10.0%	72.1%	72.1%	10.0%	10.0%	72.1%	72.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag					Lead	Lead	Lead	Lead	Lag	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	16.4	16.4	16.4	16.4	112.4	105.2	105.2	113.6	105.1	105.1	105.1	105.1
Actuated g/C Ratio	0.12	0.12	0.12	0.12	0.80	0.75	0.75	0.81	0.75	0.75	0.75	0.75
v/c Ratio	0.59	0.32	0.16	0.11	0.33	0.78	0.00	0.27	0.73	0.02	0.02	0.02
Control Delay	72.9	22.8	56.2	26.1	15.4	14.0	4.4	21.6	12.4	2.6	12.7	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.9	22.8	56.2	26.1	15.4	14.0	4.4	21.6	12.4	2.6	12.7	2.4
LOS	E	C	E	C	B	B	A	C	B	A	B	A
Approach Delay	50.6		41.1		14.0			12.5			13.0	
Approach LOS	D		D		B			B			B	

Intersection Summary
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 14.5 Intersection LOS: B
 Intersection Capacity Utilization 71.4% ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 703: Ridge Park Dr & SH 6

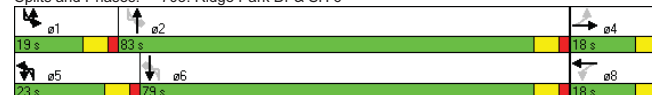


Timings SH 6/FM 1960
 703: Ridge Park Dr & SH 6 2035 PM with improvements

Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	35	14	48	24	78	72	2588	30	82	24	2216	47
Turn Type	Perm	Perm	Perm	Perm	D.P+P	D.P+P	Perm	D.P+P	D.P+P	Perm	Perm	Perm
Protected Phases	4	4	8	8	5	5	2	1	1	6	6	6
Permitted Phases	4	4	8	8	6	6	2	2	2	2	2	2
Detector Phases	4	4	8	8	5	5	2	2	1	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	24.0	24.0	5.0	5.0	24.0	24.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	31.0	31.0	12.0	12.0	31.0	31.0
Total Split (s)	18.0	18.0	18.0	18.0	23.0	23.0	83.0	83.0	19.0	19.0	79.0	79.0
Total Split (%)	15.0%	15.0%	15.0%	15.0%	19.2%	19.2%	69.2%	69.2%	15.8%	15.8%	65.8%	65.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min
Act Effct Green (s)	11.5	11.5	11.5	11.5	98.8	87.6	87.6	98.8	84.7	84.7	84.7	84.7
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.82	0.73	0.73	0.82	0.71	0.71	0.71	0.71
v/c Ratio	0.29	0.31	0.41	0.24	0.59	0.76	0.03	0.49	0.67	0.05	0.05	0.05
Control Delay	55.4	23.3	59.9	36.2	32.1	13.2	2.6	24.6	12.7	2.4	12.7	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.4	23.3	59.9	36.2	32.1	13.2	2.6	24.6	12.7	2.4	12.7	2.4
LOS	E	C	E	D	C	B	A	C	B	A	B	A
Approach Delay	35.5		49.0		14.1			13.0			13.0	
Approach LOS	D		D		B			B			B	

Intersection Summary
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 14.6 Intersection LOS: B
 Intersection Capacity Utilization 75.2% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 703: Ridge Park Dr & SH 6



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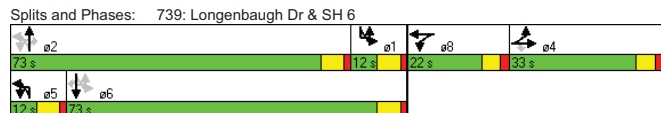
2035 PROPOSED NETWORK ANALYSIS
(Nov. 30, 2011)

Timings SH 6/FM 1960
 739: Longenbaugh Dr & SH 6 2035 AM with improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	↔↔	↑	↔	↔↔	↔↔	↔	↔	↔↔	↔	↔	↔↔	↔↔
Volume (vph)	713	173	202	11	57	30	52	2474	17	7	136	2199
Turn Type	Split		Perm	Split		pm+pt	pm+pt		Perm	pm+pt	pm+pt	
Protected Phases	4	4	4	8	8	5	5	2	2	1	1	6
Permitted Phases						2	2		2	6	6	
Detector Phases	4	4	4	8	8	5	5	2	2	1	1	6
Minimum Initial (s)	5.0	5.0	5.0	4.0	4.0	5.0	5.0	14.0	14.0	5.0	5.0	14.0
Minimum Split (s)	12.0	12.0	12.0	22.0	22.0	12.0	12.0	21.0	21.0	12.0	12.0	21.0
Total Split (s)	33.0	33.0	33.0	22.0	22.0	12.0	12.0	73.0	73.0	12.0	12.0	73.0
Total Split (%)	23.6%	23.6%	23.6%	15.7%	15.7%	8.6%	8.6%	52.1%	52.1%	8.6%	8.6%	52.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	None	C-Min
Act Effct Green (s)	30.6	30.6	30.6	16.4	16.4	69.0	69.0	69.0	69.0	69.0	69.0	69.0
Actuated g/C Ratio	0.22	0.22	0.22	0.12	0.12	0.49	0.49	0.49	0.49	0.49	0.49	0.49
v/c Ratio	1.03	0.46	0.42	0.06	0.96dr	0.58	1.07	0.02	1.01	0.95		
Control Delay	94.4	52.5	8.3	54.5	55.9	37.1	75.8	11.6	104.0	28.9		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	94.4	52.5	8.3	54.5	55.9	37.1	75.8	11.6	104.0	28.9		
LOS	F	D	A	D	E	D	E	B	F	C		
Approach Delay		71.8			55.9		74.2			32.2		
Approach LOS		E			E		E			C		

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 22 (16%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.07
 Intersection Signal Delay: 56.9 Intersection LOS: E
 Intersection Capacity Utilization 97.8% ICU Level of Service F
 Analysis Period (min) 15
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

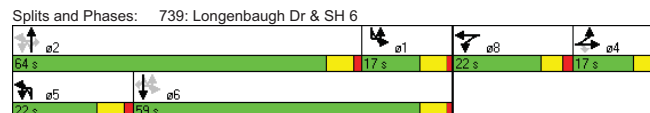


Timings SH 6/FM 1960
 739: Longenbaugh Dr & SH 6 2035 PM with improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	↔↔	↑	↔	↔↔	↔↔	↔	↔	↔↔	↔	↔	↔↔	↔↔
Volume (vph)	353	133	113	73	260	89	218	2031	38	20	194	2068
Turn Type	Split		Perm	Split		pm+pt	pm+pt		Perm	pm+pt	pm+pt	
Protected Phases	4	4	4	8	8	5	5	2	2	1	1	6
Permitted Phases						2	2		2	6	6	
Detector Phases	4	4	4	8	8	5	5	2	2	1	1	6
Minimum Initial (s)	5.0	5.0	5.0	4.0	4.0	5.0	5.0	14.0	14.0	5.0	5.0	14.0
Minimum Split (s)	12.0	12.0	12.0	22.0	22.0	12.0	12.0	21.0	21.0	12.0	12.0	21.0
Total Split (s)	17.0	17.0	17.0	22.0	22.0	12.0	12.0	73.0	73.0	17.0	17.0	59.0
Total Split (%)	14.2%	14.2%	14.2%	18.3%	18.3%	18.3%	18.3%	53.3%	53.3%	14.2%	14.2%	49.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	None	C-Min
Act Effct Green (s)	13.2	13.2	13.2	17.8	17.8	59.3	59.3	59.3	55.0	55.0	55.0	55.0
Actuated g/C Ratio	0.11	0.11	0.11	0.15	0.15	0.49	0.49	0.49	0.46	0.46	0.46	0.46
v/c Ratio	1.02	0.71	0.43	0.30	0.88	1.02	0.88	0.05	0.89	0.96		
Control Delay	104.2	71.2	13.7	48.9	54.9	90.5	32.1	6.5	63.1	32.4		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	104.2	71.2	13.7	48.9	54.9	90.5	32.1	6.5	63.1	32.4		
LOS	F	E	B	D	D	F	C	A	E	C		
Approach Delay		79.8			54.1		39.3			30.5		
Approach LOS		E			D		D			C		

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 24 (20%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.02
 Intersection Signal Delay: 40.7 Intersection LOS: D
 Intersection Capacity Utilization 94.9% ICU Level of Service F
 Analysis Period (min) 15



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2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings
739: Longenbaugh Dr & SH 6

SH 6/FM 1960
2035 AM with improvements

Lane Group	SBR
Left Configurations	7
Volume (vph)	100
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phases	6
Minimum Initial (s)	14.0
Minimum Split (s)	21.0
Total Split (s)	73.0
Total Split (%)	52.1%
Yellow Time (s)	5.0
All-Red Time (s)	1.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	C-Min
Act Effct Green (s)	69.0
Actuated g/C Ratio	0.49
v/c Ratio	0.13
Control Delay	2.9
Queue Delay	0.0
Total Delay	2.9
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Timings
739: Longenbaugh Dr & SH 6

SH 6/FM 1960
2035 PM with improvements

Lane Group	SBR
Left Configurations	7
Volume (vph)	422
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phases	6
Minimum Initial (s)	14.0
Minimum Split (s)	21.0
Total Split (s)	59.0
Total Split (%)	49.2%
Yellow Time (s)	5.0
All-Red Time (s)	1.5
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	C-Min
Act Effct Green (s)	55.0
Actuated g/C Ratio	0.46
v/c Ratio	0.50
Control Delay	4.7
Queue Delay	0.0
Total Delay	4.7
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

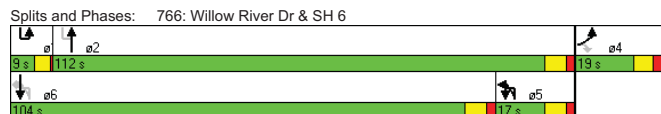
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**2035 PROPOSED NETWORK ANALYSIS
(Nov. 30, 2011)**

Timings SH 6/FM 1960
766: Willow River Dr & SH 6 2035 AM with improvements

Lane Group	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↖↗	↖	↗	↖
Volume (vph)	149	116	8	98	3374	3	2353	129
Turn Type	Perm D.P+P D.P+P		D.P+P		D.P+P		Perm	
Protected Phases	4		5	5	2	1	6	
Permitted Phases		4	6	6		2		6
Detector Phases	4	4	5	5	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	20.0	4.0	20.0	20.0
Minimum Split (s)	12.0	12.0	12.0	12.0	27.0	8.0	27.0	27.0
Total Split (s)	19.0	19.0	17.0	17.0	112.0	9.0	104.0	104.0
Total Split (%)	13.6%	13.6%	12.1%	12.1%	80.0%	6.4%	74.3%	74.3%
Yellow Time (s)	4.0	4.0	4.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	2.5	2.5	2.0	2.0	2.0	0.5	2.0	2.0
Lead/Lag			Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Min	None	C-Min	C-Min
Act Effct Green (s)	15.0	15.0			113.0	115.2	116.2	100.0
Actuated g/C Ratio	0.11	0.11			0.81	0.82	0.83	0.71
v/c Ratio	0.85	0.48			0.53	0.88	0.03	0.70
Control Delay	97.0	20.9			25.9	4.4	2.0	9.1
Queue Delay	0.0	0.0			0.0	0.1	0.0	0.0
Total Delay	97.0	20.9			25.9	4.5	2.0	9.1
LOS	F	C			C	A	A	A
Approach Delay	63.7				5.1		8.7	
Approach LOS	E				A		A	

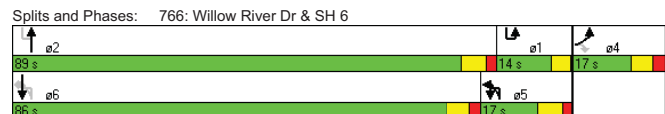
Intersection Summary
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 137 (98%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 9.0 Intersection LOS: A
 Intersection Capacity Utilization 86.8% ICU Level of Service E
 Analysis Period (min) 15



Timings SH 6/FM 1960
766: Willow River Dr & SH 6 2035 PM with improvements

Lane Group	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↖↗	↖	↗	↖
Volume (vph)	51	41	11	57	2495	8	2611	88
Turn Type	Perm D.P+P D.P+P		D.P+P		D.P+P		Perm	
Protected Phases	4		5	5	2	1	6	
Permitted Phases		4	6	6		2		6
Detector Phases	4	4	5	5	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	20.0	4.0	20.0	20.0
Minimum Split (s)	12.0	12.0	12.0	12.0	27.0	8.0	27.0	27.0
Total Split (s)	17.0	17.0	17.0	17.0	89.0	14.0	86.0	86.0
Total Split (%)	14.2%	14.2%	14.2%	14.2%	74.2%	11.7%	71.7%	71.7%
Yellow Time (s)	4.0	4.0	4.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	2.5	2.5	2.0	2.0	2.0	0.5	2.0	2.0
Lead/Lag			Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Min	None	C-Min	C-Min
Act Effct Green (s)	11.2	11.2			100.8	101.3	102.8	92.8
Actuated g/C Ratio	0.09	0.09			0.84	0.84	0.86	0.77
v/c Ratio	0.33	0.24			0.35	0.63	0.05	0.72
Control Delay	55.8	17.2			16.6	0.9	1.0	2.1
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0
Total Delay	55.8	17.2			16.6	0.9	1.0	2.1
LOS	E	B			B	A	A	A
Approach Delay	38.4				1.3		2.1	
Approach LOS	D				A		A	

Intersection Summary
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 4 (3%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 2.3 Intersection LOS: A
 Intersection Capacity Utilization 67.3% ICU Level of Service C
 Analysis Period (min) 15



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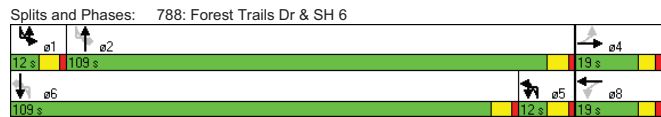
2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings SH 6/FM 1960
788: Forest Trails Dr & SH 6 2035 AM with improvements

Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↔↔		↔↔		↔↔		↔↔		↔↔		↔↔	
Volume (vph)	46	39	79	14	2	13	3269	176	18	14	2406	25
Turn Type	Perm		Perm		D.P+P D.P+P		Perm		D.P+P D.P+P		Perm	
Protected Phases	4	4	8	8	5	5	2	2	2	2	6	6
Permitted Phases	4	4	8	8	5	5	2	2	2	2	6	6
Detector Phases	4	4	8	8	5	5	2	2	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	12.0	12.0	27.0	27.0	12.0	12.0	27.0	27.0
Total Split (s)	19.0	19.0	19.0	19.0	12.0	12.0	109.0	109.0	12.0	12.0	109.0	109.0
Total Split (%)	13.6%	13.6%	13.6%	13.6%	8.6%	8.6%	77.9%	77.9%	8.6%	8.6%	77.9%	77.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag					Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min	None
Act Effct Green (s)	14.2	14.2	14.2	14.2	116.2	108.3	108.3	114.6	110.7	110.7	110.7	110.7
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.83	0.77	0.77	0.82	0.79	0.79	0.79	0.79
v/c Ratio	0.43	0.75	0.14	0.14	0.09	0.90	0.15	0.23	0.65	0.02	0.66	0.04
Control Delay	43.1	96.6	26.3	26.3	2.3	7.5	0.3	7.7	8.6	1.9	8.6	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	96.6	26.3	26.3	2.3	7.7	0.3	7.7	8.6	1.9	8.6	1.9
LOS	D	F	C	C	A	A	A	A	A	A	A	A
Approach Delay	43.1		71.4		7.3		8.5					
Approach LOS	D		E		A		A					

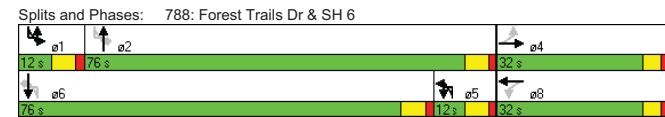
Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	12 (9%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	9.8
Intersection LOS:	A
Intersection Capacity Utilization:	80.9%
ICU Level of Service:	D
Analysis Period (min):	15



Timings SH 6/FM 1960
788: Forest Trails Dr & SH 6 2035 PM with improvements

Lane Group	EBL	EBT	WBL	WBT	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations	↔↔		↔↔		↔↔		↔↔		↔↔		↔↔	
Volume (vph)	13	15	194	50	9	34	2392	115	28	24	2488	39
Turn Type	Perm		Perm		D.P+P D.P+P		Perm		D.P+P D.P+P		Perm	
Protected Phases	4	4	8	8	5	5	2	2	2	2	6	6
Permitted Phases	4	4	8	8	5	5	2	2	2	2	6	6
Detector Phases	4	4	8	8	5	5	2	2	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	12.0	12.0	27.0	27.0	12.0	12.0	27.0	27.0
Total Split (s)	32.0	32.0	32.0	32.0	12.0	12.0	76.0	76.0	12.0	12.0	76.0	76.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	10.0%	10.0%	63.3%	63.3%	10.0%	10.0%	63.3%	63.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag					Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	C-Min
Act Effct Green (s)	23.7	23.7	23.7	23.7	85.1	78.6	78.6	85.1	78.7	78.7	78.7	78.7
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.71	0.66	0.66	0.71	0.66	0.66	0.71	0.66
v/c Ratio	0.10	0.80	0.15	0.15	0.26	0.78	0.12	0.30	0.81	0.04	0.66	0.04
Control Delay	21.0	67.8	20.9	20.9	20.2	18.0	5.8	11.8	19.5	4.0	19.5	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	67.8	20.9	20.9	20.2	18.0	5.8	11.8	19.5	4.0	19.5	4.0
LOS	C	E	C	C	C	B	A	B	B	A	B	A
Approach Delay	21.0		52.2		17.5		19.1					
Approach LOS	C		D		B		B					

Intersection Summary	
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	20.1
Intersection LOS:	C
Intersection Capacity Utilization:	72.2%
ICU Level of Service:	C
Analysis Period (min):	15



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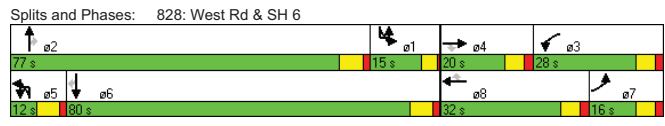
2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings SH 6/FM 1960
828: West Rd & SH 6 2035 AM with improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	286	222	99	466	706	140	119	1929	200	117	2694	294
Turn Type	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm
Protected Phases	7	4	4	3	8	8	5	2	2	1	6	6
Permitted Phases												
Detector Phases	7	4	4	3	8	8	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	12.0	12.0	4.0	12.0	12.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	19.0	19.0	8.0	19.0	19.0
Total Split (s)	16.0	20.0	20.0	28.0	32.0	32.0	12.0	77.0	77.0	15.0	80.0	80.0
Total Split (%)	11.4%	14.3%	14.3%	20.0%	22.9%	22.9%	8.6%	55.0%	55.0%	10.7%	57.1%	57.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	0.5	1.5	1.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	12.0	15.2	15.2	24.8	28.0	28.0	8.0	69.9	69.9	14.1	76.0	76.0
Actuated g/C Ratio	0.09	0.11	0.11	0.18	0.20	0.20	0.06	0.50	0.50	0.10	0.54	0.54
v/c Ratio	1.06	0.63	0.57	0.83	1.08	0.41	0.98	0.83	0.25	0.46	1.06	0.34
Control Delay	128.2	67.4	60.3	68.5	110.4	29.9	124.1	33.1	5.4	58.7	61.9	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	128.2	67.4	60.3	68.5	110.4	29.9	124.1	33.1	5.4	58.7	61.9	3.3
LOS	F	E	E	E	F	C	F	C	A	E	E	A
Approach Delay	94.9			86.9			37.6			56.3		
Approach LOS	F			F			D			E		

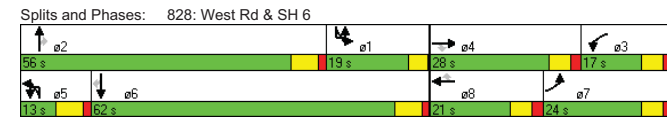
Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	12 (9%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	140
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.08
Intersection Signal Delay:	59.1
Intersection LOS:	E
Intersection Capacity Utilization:	98.1%
ICU Level of Service:	F
Analysis Period (min):	15



Timings SH 6/FM 1960
828: West Rd & SH 6 2035 PM with improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	439	679	33	358	326	162	68	2057	358	323	1774	244
Turn Type	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm
Protected Phases	7	4	4	3	8	8	5	2	2	1	6	6
Permitted Phases												
Detector Phases	7	4	4	3	8	8	5	2	2	1	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	12.0	12.0	4.0	12.0	12.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	19.0	19.0	8.0	19.0	19.0
Total Split (s)	24.0	28.0	28.0	17.0	21.0	21.0	13.0	56.0	56.0	19.0	62.0	62.0
Total Split (%)	20.0%	23.3%	23.3%	14.2%	17.5%	17.5%	10.8%	46.7%	46.7%	15.8%	51.7%	51.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	0.5	1.5	1.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	20.5	24.0	24.0	13.0	16.5	16.5	9.0	52.0	52.0	15.0	58.0	58.0
Actuated g/C Ratio	0.17	0.20	0.20	0.11	0.14	0.14	0.08	0.43	0.43	0.12	0.48	0.48
v/c Ratio	0.81	1.04	1.04	0.10	1.05	0.73	0.58	1.01	1.01	0.46	1.00	0.78
Control Delay	60.3	92.0	13.1	110.7	58.9	30.4	62.1	56.9	8.6	78.1	17.3	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.3	92.0	13.1	110.7	58.9	30.4	62.1	56.9	8.6	78.1	17.3	1.5
LOS	E	F	B	F	E	C	E	A	E	A	B	A
Approach Delay	77.6			75.4			50.4			25.6		
Approach LOS	E			E			D			C		

Intersection Summary	
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	7 (6%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	110
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.05
Intersection Signal Delay:	49.3
Intersection LOS:	D
Intersection Capacity Utilization:	93.3%
ICU Level of Service:	F
Analysis Period (min):	15



****REPLACED****

2035 PROPOSED NETWORK ANALYSIS
(Nov. 30, 2011)

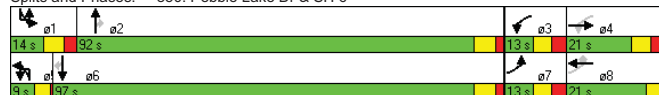
Timings SH 6/FM 1960
 850: Pebble Lake Dr & SH 6 2035 AM with improvements

	↖	→	↗	←	↖	↗	↖	↗	↖	↗	↖	↗
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	260	73	43	15	220	11	3455	25	136	2112	19	
Turn Type	D.P+P		D.P+P		Perm	Prot		Perm	Prot		Perm	
Protected Phases	7	4	3	8		5	2		1	6		
Permitted Phases	8		4		8			2			6	
Detector Phases	7	4	3	8	8	5	2	2	1	6	6	
Minimum Initial (s)	5.0	5.0	5.0	4.0	4.0	4.0	16.0	16.0	5.0	16.0	16.0	
Minimum Split (s)	13.0	13.0	13.0	20.0	20.0	8.0	23.0	23.0	13.0	23.0	23.0	
Total Split (s)	13.0	21.0	13.0	21.0	21.0	9.0	92.0	92.0	14.0	97.0	97.0	
Total Split (%)	9.3%	15.0%	9.3%	15.0%	15.0%	6.4%	65.7%	65.7%	10.0%	69.3%	69.3%	
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	3.0	3.0	3.0	0.5	0.5	0.5	2.0	2.0	2.5	2.0	2.0	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min	C-Min	
Act Effct Green (s)	26.0	19.6	26.8	17.0	17.0	5.0	88.0	88.0	10.0	94.8	94.8	
Actuated g/C Ratio	0.19	0.14	0.19	0.12	0.12	0.04	0.63	0.63	0.07	0.68	0.68	
v/c Ratio	1.00	0.46	0.21	0.07	1.18	0.33	1.17	0.03	1.16	0.67	0.02	
Control Delay	107.6	56.1	47.0	55.5	170.5	74.7	97.9	2.9	163.7	14.8	3.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	107.6	56.1	47.0	55.5	170.5	74.7	97.9	2.9	163.7	14.8	3.0	
LOS	F	E	D	E	F	E	F	A	F	B	A	
Approach Delay		92.3		145.2			97.0			31.0		
Approach LOS		F		F			F			C		

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 131 (94%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.18
 Intersection Signal Delay: 74.7 Intersection LOS: E
 Intersection Capacity Utilization 115.6% ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 850: Pebble Lake Dr & SH 6



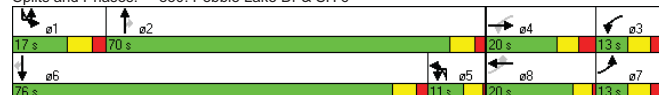
Timings SH 6/FM 1960
 850: Pebble Lake Dr & SH 6 2035 PM with improvements

	↖	→	↗	←	↖	↗	↖	↗	↖	↗	↖	↗
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	31	16	57	56	136	30	2158	23	129	2355	128	
Turn Type	D.P+P		D.P+P		Perm	Prot		Perm	Prot		Perm	
Protected Phases	7	4	3	8		5	2		1	6		
Permitted Phases	8		4		8			2			6	
Detector Phases	7	4	3	8	8	5	2	2	1	6	6	
Minimum Initial (s)	5.0	5.0	5.0	4.0	4.0	4.0	16.0	16.0	5.0	16.0	16.0	
Minimum Split (s)	13.0	13.0	13.0	20.0	20.0	8.0	23.0	23.0	13.0	23.0	23.0	
Total Split (s)	13.0	20.0	13.0	20.0	20.0	11.0	70.0	70.0	17.0	76.0	76.0	
Total Split (%)	10.8%	16.7%	10.8%	16.7%	16.7%	9.2%	58.3%	58.3%	14.2%	63.3%	63.3%	
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	3.0	3.0	3.0	0.5	0.5	0.5	2.0	2.0	2.5	2.0	2.0	
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min	
Act Effct Green (s)	19.5	9.9	16.2	10.9	10.9	8.0	73.7	73.7	15.7	81.4	81.4	
Actuated g/C Ratio	0.16	0.08	0.14	0.09	0.09	0.07	0.61	0.61	0.13	0.68	0.68	
v/c Ratio	0.14	0.20	0.29	0.36	0.60	0.49	0.75	0.03	0.54	0.74	0.12	
Control Delay	40.8	36.0	45.3	56.8	25.3	41.3	6.1	0.3	53.5	15.2	2.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	40.8	36.0	45.3	56.8	25.3	41.3	6.1	0.3	53.5	15.2	2.4	
LOS	D	D	D	E	C	D	A	A	D	B	A	
Approach Delay		38.5		36.9			7.6			17.8		
Approach LOS		D		D			A			B		

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 14.5 Intersection LOS: B
 Intersection Capacity Utilization 74.0% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 850: Pebble Lake Dr & SH 6



****REPLACED****

2035 PROPOSED NETWORK ANALYSIS

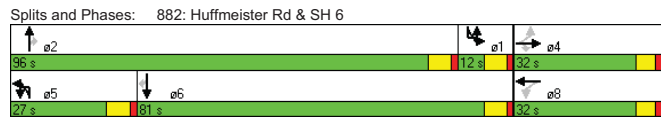
(Nov. 30, 2011)

Timings SH 6/FM 1960
 882: Huffmeister Rd & SH 6 2035 AM with improvements

	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖	↗	↘	↖	↗	↖	↗	↘	↖	↗	↘	
Volume (vph)	296	8	714	6	10	355	3520	9	1	1614	42	
Turn Type	Perm		Perm	Perm		Prot		Perm	Prot		Perm	
Protected Phases		4			8		5		2		1	6
Permitted Phases	4		4		8		5		2		1	6
Detector Phases	4		4		8		5		2		1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	20.0	20.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	27.0	27.0	12.0	27.0	27.0	27.0
Total Split (s)	32.0	32.0	32.0	32.0	32.0	27.0	96.0	96.0	12.0	81.0	81.0	81.0
Total Split (%)	22.9%	22.9%	22.9%	22.9%	22.9%	19.3%	68.6%	68.6%	8.6%	57.9%	57.9%	57.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						Lead	Lead	Lead	Lag	Lag	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min	C-Min
Act Effct Green (s)	28.0	28.0	28.0	28.0	28.0	21.7	92.0	92.0	8.0	78.3	78.3	78.3
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.16	0.66	0.66	0.66	0.06	0.56	0.56	0.56
v/c Ratio	1.16	0.78	0.77	0.04	0.73	1.14	0.01	1.16	0.62	0.05	0.05	0.05
Control Delay	152.3	30.3	28.6	45.5	65.1	94.1	5.6	193.9	22.1	4.2	4.2	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	152.3	30.3	28.6	45.5	65.1	94.1	5.6	193.9	22.1	4.2	4.2	4.2
LOS	F	C	C	D	E	F	A	F	C	A	A	A
Approach Delay		65.2		45.5		91.2			32.2			
Approach LOS		E		D		F			C			

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.16
 Intersection Signal Delay: 71.6 Intersection LOS: E
 Intersection Capacity Utilization 107.1% ICU Level of Service G
 Analysis Period (min) 15

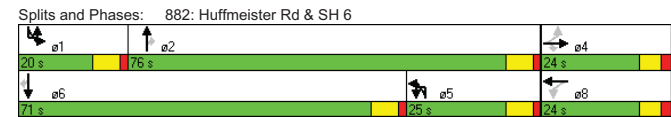


Timings SH 6/FM 1960
 882: Huffmeister Rd & SH 6 2035 PM with improvements

	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖	↗	↘	↖	↗	↖	↗	↘	↖	↗	↘	
Volume (vph)	123	5	684	15	17	479	1663	9	1	2406	92	
Turn Type	Perm		Perm	Perm		Prot		Perm	Prot		Perm	
Protected Phases		4			8		5		2		1	6
Permitted Phases	4		4		8		5		2		1	6
Detector Phases	4		4		8		5		2		1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	20.0	20.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	27.0	27.0	12.0	27.0	27.0	27.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	25.0	76.0	76.0	20.0	71.0	71.0	71.0
Total Split (%)	20.0%	20.0%	20.0%	20.0%	20.0%	20.8%	63.3%	63.3%	16.7%	59.2%	59.2%	59.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						Lag	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min	C-Min
Act Effct Green (s)	17.9	17.9	17.9	17.9	17.9	21.0	75.3	75.3	14.8	69.1	69.1	69.1
Actuated g/C Ratio	0.15	0.15	0.15	0.15	0.15	0.18	0.63	0.63	0.12	0.58	0.58	0.58
v/c Ratio	0.66	0.89	0.88	0.11	0.90	0.57	0.01	0.61	0.89	0.11	0.11	0.11
Control Delay	63.5	41.7	40.2	41.0	67.2	14.3	4.9	62.1	27.8	4.3	4.3	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	41.7	40.2	41.0	67.2	14.3	4.9	62.1	27.8	4.3	4.3	4.3
LOS	E	D	D	D	E	B	A	E	C	A	A	A
Approach Delay		44.4		41.0		26.4			28.6			
Approach LOS		D		D		C			C			

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 30.1 Intersection LOS: C
 Intersection Capacity Utilization 106.3% ICU Level of Service G
 Analysis Period (min) 15



****REPLACED****

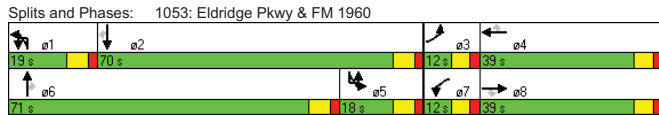
2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings SH 6/FM 1960
1053: Eldridge Pkwy & FM 1960 2035 AM with improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Volume (vph)	33	1026	227	96	245	368	207	2714	66	318	1818	29
Turn Type	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm
Protected Phases	3	8	8	7	4	4	1	6	6	5	2	2
Permitted Phases												
Detector Phases	3	8	8	7	4	4	1	6	6	5	2	2
Minimum Initial (s)	3.0	7.0	7.0	3.0	7.0	7.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	12.0	14.0	14.0	12.0	14.0	14.0	12.0	22.0	22.0	12.0	22.0	22.0
Total Split (s)	12.0	39.0	39.0	12.0	39.0	39.0	19.0	71.0	71.0	18.0	70.0	70.0
Total Split (%)	8.6%	27.9%	27.9%	8.6%	27.9%	27.9%	13.6%	50.7%	50.7%	12.9%	50.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min	C-Min
Act Effct Green (s)	7.9	35.0	35.0	8.0	37.4	37.4	15.0	67.0	67.0	14.0	66.0	66.0
Actuated g/C Ratio	0.06	0.25	0.25	0.06	0.27	0.27	0.11	0.48	0.48	0.10	0.47	0.47
v/c Ratio	0.19	1.26	0.54	0.53	0.28	0.77	0.80	1.21	0.09	1.14	0.82	0.04
Control Delay	65.3	169.0	33.7	74.5	42.5	43.0	78.1	133.0	11.2	146.8	35.7	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.3	169.0	33.7	74.5	42.5	43.0	78.1	133.0	11.2	146.8	35.7	9.3
LOS	E	F	C	E	D	D	E	F	B	F	D	A
Approach Delay		142.4			47.1			125.4			53.4	
Approach LOS		F			D			F			D	

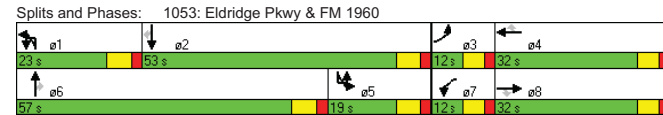
Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green
Natural Cycle:	150
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.26
Intersection Signal Delay:	98.9
Intersection Capacity Utilization:	107.7%
ICU Level of Service:	G
Intersection LOS:	F
Analysis Period (min):	15



Timings SH 6/FM 1960
1053: Eldridge Pkwy & FM 1960 2035 PM with improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Volume (vph)	135	401	434	164	915	366	410	1939	51	263	2184	24
Turn Type	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm	Prot	Perm
Protected Phases	3	8	8	7	4	4	1	6	6	5	2	2
Permitted Phases												
Detector Phases	3	8	8	7	4	4	1	6	6	5	2	2
Minimum Initial (s)	3.0	7.0	7.0	3.0	7.0	7.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	12.0	14.0	14.0	12.0	14.0	14.0	12.0	22.0	22.0	12.0	22.0	22.0
Total Split (s)	12.0	32.0	32.0	12.0	32.0	32.0	23.0	57.0	57.0	19.0	53.0	53.0
Total Split (%)	10.0%	26.7%	26.7%	10.0%	26.7%	26.7%	19.2%	47.5%	47.5%	15.8%	44.2%	44.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min	C-Min
Act Effct Green (s)	8.0	28.0	28.0	8.0	28.0	28.0	19.0	53.0	53.0	15.0	49.0	49.0
Actuated g/C Ratio	0.07	0.23	0.23	0.07	0.23	0.23	0.16	0.44	0.44	0.12	0.41	0.41
v/c Ratio	0.64	0.53	1.15	0.78	1.20	0.95	1.20	0.94	0.08	0.96	1.14	0.04
Control Delay	68.0	43.0	127.5	77.9	143.7	70.9	148.9	41.5	8.1	86.6	104.6	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.0	43.0	127.5	77.9	143.7	70.9	148.9	41.5	8.1	86.6	104.6	12.1
LOS	E	D	F	E	F	E	F	D	A	F	F	B
Approach Delay		84.3			117.8			65.7			101.1	
Approach LOS		F			F			E			F	

Intersection Summary	
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green
Natural Cycle:	150
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.20
Intersection Signal Delay:	90.0
Intersection Capacity Utilization:	104.2%
ICU Level of Service:	G
Intersection LOS:	F
Analysis Period (min):	15



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2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings SH 6/FM 1960
1096: Windermere Lakes Boulevard & FM 1960 2035 AM with improvements

Lane Group	EBL	EBT	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	↖	↗	↖	↗	↖	↗	↖	↗	↖	↗	↖	↗
Volume (vph)	26	9	57	0	88	45	10	3297	35	40	38	2271
Turn Type	Perm		Perm		Perm	D.P+P	D.P+P		Perm	D.P+P	D.P+P	
Protected Phases		8		4		4	5	5	2		1	6
Permitted Phases	8		4		4	6	6		2	2	2	
Detector Phases	8	8	4	4	4	5	5	2	2	1	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	1.0	1.0	1.0	1.0	15.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	22.0	22.0	12.0	12.0	22.0
Total Split (s)	15.0	15.0	15.0	15.0	15.0	12.0	12.0	113.0	113.0	12.0	12.0	113.0
Total Split (%)	10.7%	10.7%	10.7%	10.7%	10.7%	8.6%	8.6%	80.7%	80.7%	8.6%	8.6%	80.7%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	
Act Effct Green (s)	10.6	10.6		10.6	10.6		118.2	109.3			117.4	111.8
Actuated g/C Ratio	0.08	0.08		0.08	0.08		0.84	0.78			0.84	0.80
v/c Ratio	0.29	0.28		0.60	0.65		0.37	0.90			0.54	0.61
Control Delay	69.2	29.6		86.2	63.3		16.1	15.9			35.7	6.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	69.2	29.6		86.2	63.3		16.1	15.9			35.7	6.7
LOS	E	C		F	E		B	B			D	A
Approach Delay		45.0		72.3				15.7				7.6
Approach LOS		D		E				B				A

Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	14.2
Intersection LOS:	B
Intersection Capacity Utilization:	84.4%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 1096: Windermere Lakes Boulevard & FM 1960



Timings SH 6/FM 1960
1096: Windermere Lakes Boulevard & FM 1960 2035 PM with improvements

Lane Group	EBL	EBT	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	↖	↗	↖	↗	↖	↗	↖	↗	↖	↗	↖	↗
Volume (vph)	81	16	66	11	91	117	33	2514	60	59	67	3034
Turn Type	Perm		Perm		Perm	D.P+P	D.P+P		Perm	D.P+P	D.P+P	
Protected Phases		8		4		4	5	5	2		1	6
Permitted Phases	8		4		4	6	6		2	2	2	
Detector Phases	8	8	4	4	4	5	5	2	2	1	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	1.0	1.0	1.0	1.0	15.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	22.0	22.0	12.0	12.0	22.0
Total Split (s)	18.0	18.0	18.0	18.0	18.0	14.0	14.0	85.0	85.0	17.0	17.0	88.0
Total Split (%)	15.0%	15.0%	15.0%	15.0%	15.0%	11.7%	11.7%	70.8%	70.8%	14.2%	14.2%	73.3%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag						Lag	Lag	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	None	C-Min	
Act Effct Green (s)	13.7	13.7		13.7	13.7		94.3	82.7			94.3	84.4
Actuated g/C Ratio	0.11	0.11		0.11	0.11		0.79	0.69			0.79	0.70
v/c Ratio	0.64	0.60		0.82	0.39		0.78	0.78			0.66	0.59
Control Delay	72.5	52.6		101.6	19.3		60.0	14.9			33.8	20.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	72.5	52.6		101.6	19.3		60.0	14.9			33.8	20.8
LOS	E	D		F	B		E	B			C	C
Approach Delay		60.8		57.1				17.1				20.4
Approach LOS		E		E				B				C

Intersection Summary	
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.92
Intersection Signal Delay:	21.2
Intersection LOS:	C
Intersection Capacity Utilization:	88.1%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 1096: Windermere Lakes Boulevard & FM 1960



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2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings SH 6/FM 1960
1096: Windermere Lakes Boulevard & FM 1960 2035 AM with improvements

↙	
Lane Group	SBR
Left Configurations	7
Volume (vph)	43
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phases	6
Minimum Initial (s)	15.0
Minimum Split (s)	22.0
Total Split (s)	113.0
Total Split (%)	80.7%
Yellow Time (s)	4.5
All-Red Time (s)	2.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	C-Min
Act Effct Green (s)	111.8
Actuated g/C Ratio	0.80
v/c Ratio	0.04
Control Delay	1.0
Queue Delay	0.0
Total Delay	1.0
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Timings SH 6/FM 1960
1096: Windermere Lakes Boulevard & FM 1960 2035 PM with improvements

↙	
Lane Group	SBR
Left Configurations	7
Volume (vph)	158
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phases	6
Minimum Initial (s)	15.0
Minimum Split (s)	22.0
Total Split (s)	88.0
Total Split (%)	73.3%
Yellow Time (s)	4.5
All-Red Time (s)	2.0
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Recall Mode	C-Min
Act Effct Green (s)	84.4
Actuated g/C Ratio	0.70
v/c Ratio	0.15
Control Delay	1.4
Queue Delay	0.0
Total Delay	1.4
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

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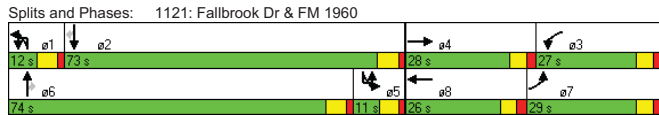
2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings SH 6/FM 1960
1121: Fallbrook Dr & FM 1960 2035 AM with improvements

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↖	↗	↖	↖	↗	↗
Volume (vph)	181	499	255	60	23	2241	437	18	1868	50
Turn Type	Prot		Prot		Prot		Perm	Prot		Perm
Protected Phases	7	4	3	8	1	6		5	2	
Permitted Phases							6			2
Detector Phases	7	4	3	8	1	6	6	5	2	2
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	11.0	11.0	11.0	11.0	12.0	32.0	32.0	11.0	32.0	32.0
Total Split (s)	29.0	28.0	27.0	26.0	12.0	74.0	74.0	11.0	73.0	73.0
Total Split (%)	20.7%	20.0%	19.3%	18.6%	8.6%	52.9%	52.9%	7.9%	52.1%	52.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.0	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	32.9	24.5	17.8	9.5	10.3	76.9	76.9	7.0	73.8	73.8
Actuated g/C Ratio	0.24	0.18	0.13	0.07	0.07	0.55	0.55	0.05	0.53	0.53
v/c Ratio	0.47	0.94	0.64	0.33	0.46	0.87	0.47	0.54	0.76	0.06
Control Delay	50.4	80.4	64.5	51.8	73.9	32.6	8.7	87.0	29.4	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.4	80.4	64.5	51.8	73.9	32.6	8.7	87.0	29.4	7.7
LOS	D	F	E	D	E	C	A	F	C	A
Approach Delay		72.8		61.6		29.6			30.2	
Approach LOS		E		E		C			C	

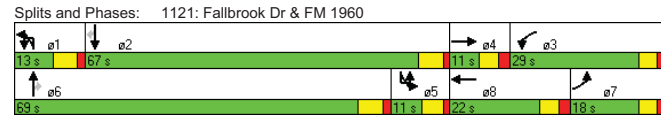
Intersection Summary
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 37.0 Intersection LOS: D
 Intersection Capacity Utilization 77.9% ICU Level of Service D
 Analysis Period (min) 15



Timings SH 6/FM 1960
1121: Fallbrook Dr & FM 1960 2035 PM with improvements

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↖	↗	↖	↖	↗	↗
Volume (vph)	147	106	367	407	52	2218	221	8	2586	169
Turn Type	Prot		Prot		Prot		Perm	Prot		Perm
Protected Phases	7	4	3	8	1	6		5	2	
Permitted Phases							6			2
Detector Phases	7	4	3	8	1	6	6	5	2	2
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	25.0	25.0	5.0	25.0	25.0
Minimum Split (s)	11.0	11.0	11.0	11.0	12.0	32.0	32.0	11.0	32.0	32.0
Total Split (s)	18.0	11.0	29.0	22.0	13.0	69.0	69.0	11.0	67.0	67.0
Total Split (%)	15.0%	9.2%	24.2%	18.3%	10.8%	57.5%	57.5%	9.2%	55.8%	55.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.0	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	13.7	7.0	24.6	18.0	9.4	67.6	67.6	7.0	63.0	63.0
Actuated g/C Ratio	0.11	0.06	0.20	0.15	0.08	0.56	0.56	0.06	0.52	0.52
v/c Ratio	0.79	0.83	0.57	0.86	1.05	0.84	0.25	0.54	1.05	0.21
Control Delay	78.9	72.0	46.4	66.9	144.6	26.1	3.9	74.4	62.0	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.9	72.0	46.4	66.9	144.6	26.1	3.9	74.4	62.0	5.9
LOS	E	E	D	E	F	C	A	E	E	A
Approach Delay		75.1		57.3		30.3			58.8	
Approach LOS		E		E		C			E	

Intersection Summary
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.05
 Intersection Signal Delay: 48.2 Intersection LOS: D
 Intersection Capacity Utilization 90.6% ICU Level of Service E
 Analysis Period (min) 15



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2035 PROPOSED NETWORK ANALYSIS

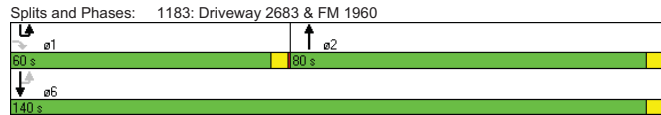
(Nov. 30, 2011)

Timings
1183: Driveway 2683 & FM 1960

SH 6/FM 1960
2035 AM with improvements

Lane Group	EBR	NBT	SBU	SBT
Lane Configurations	↑	↑↑↑	↓	↑↑↑
Volume (vph)	29	2667	873	2339
Turn Type	custom	pm+pt		
Protected Phases		2	1	6
Permitted Phases	1		6	
Detector Phases	1	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0
Total Split (s)	60.0	80.0	60.0	140.0
Total Split (%)	42.9%	57.1%	42.9%	100.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	C-Max
Act Effct Green (s)	56.0	76.0	136.0	140.0
Actuated g/C Ratio	0.40	0.54	0.97	1.00
v/c Ratio	0.05	1.05	1.25	0.51
Control Delay	7.3	63.9	163.2	0.2
Queue Delay	0.0	95.6	26.7	0.0
Total Delay	7.3	159.5	189.9	0.2
LOS	A	F	F	A
Approach Delay		159.5		51.2
Approach LOS		F		D

Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	5 (4%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.25
Intersection Signal Delay:	99.5
Intersection Capacity Utilization	106.6%
Intersection LOS:	F
ICU Level of Service	G
Analysis Period (min)	15

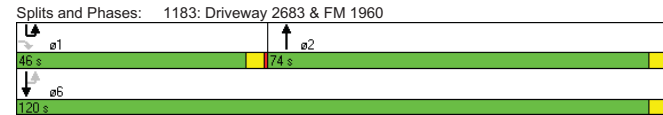


Timings
1183: Driveway 2683 & FM 1960

SH 6/FM 1960
2035 PM with improvements

Lane Group	EBR	NBT	SBU	SBT
Lane Configurations	↑	↑↑↑	↓	↑↑↑
Volume (vph)	32	2883	668	2824
Turn Type	custom	pm+pt		
Protected Phases		2	1	6
Permitted Phases	1		6	
Detector Phases	1	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	8.0	20.0
Total Split (s)	46.0	74.0	46.0	120.0
Total Split (%)	38.3%	61.7%	38.3%	100.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	
Recall Mode	None	C-Max	None	C-Max
Act Effct Green (s)	42.0	70.0	116.0	120.0
Actuated g/C Ratio	0.35	0.58	0.97	1.00
v/c Ratio	0.06	1.06	1.06	0.61
Control Delay	16.5	59.5	57.2	1.0
Queue Delay	0.0	175.5	9.9	0.0
Total Delay	16.5	235.0	67.1	1.0
LOS	B	F	E	A
Approach Delay		235.0		13.6
Approach LOS		F		B

Intersection Summary	
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	93 (78%), Referenced to phase 2:NBT and 6:SBTU, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.06
Intersection Signal Delay:	112.7
Intersection Capacity Utilization	99.4%
Intersection LOS:	F
ICU Level of Service	F
Analysis Period (min)	15



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2035 PROPOSED NETWORK ANALYSIS

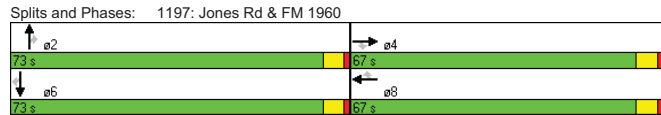
(Nov. 30, 2011)

Timings SH 6/FM 1960
 1197: Jones Rd & FM 1960 2035 AM with improvements

	→	↘	←	↙	↑	↗	↓	↖
Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗
Volume (vph)	2331	333	650	1142	2580	821	2843	292
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases	4		8		2		6	
Permitted Phases		4		8		2		6
Detector Phases	4	4	8	8	2	2	6	6
Minimum Initial (s)	10.0	10.0	10.0	10.0	15.0	15.0	15.0	15.0
Minimum Split (s)	16.0	16.0	16.0	16.0	21.0	21.0	21.0	21.0
Total Split (s)	67.0	67.0	67.0	67.0	73.0	73.0	73.0	73.0
Total Split (%)	47.9%	47.9%	47.9%	47.9%	52.1%	52.1%	52.1%	52.1%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag	Lead-Lag Optimize?							
Recall Mode	Min	Min	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	63.0	63.0	63.0	63.0	69.0	69.0	69.0	69.0
Actuated g/C Ratio	0.45	0.45	0.45	0.45	0.49	0.49	0.49	0.49
v/c Ratio	1.11	0.51	0.31	1.74	1.12	1.14	1.23	0.37
Control Delay	92.0	30.6	25.1	367.5	91.7	107.5	134.3	7.0
Queue Delay	0.0	0.1	0.0	0.0	31.1	19.1	39.7	0.0
Total Delay	92.0	30.7	25.1	367.5	122.8	126.6	174.0	7.0
LOS	F	C	C	F	F	F	F	A
Approach Delay	84.4		243.2		123.7		158.5	
Approach LOS	F		F		F		F	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 126 (90%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.74
 Intersection Signal Delay: 143.6 Intersection LOS: F
 Intersection Capacity Utilization 127.2% ICU Level of Service H
 Analysis Period (min) 15

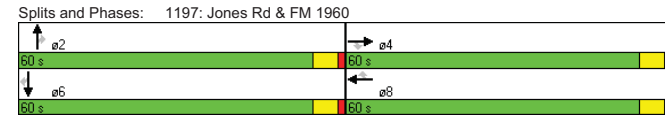


Timings SH 6/FM 1960
 1197: Jones Rd & FM 1960 2035 PM with improvements

	→	↘	←	↙	↑	↗	↓	↖
Lane Group	EBT	EBR	WBT	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗	↑↑↑	↗
Volume (vph)	1242	561	1497	968	2937	561	2817	665
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases	4		8		2		6	
Permitted Phases		4		8		2		6
Detector Phases	4	4	8	8	2	2	6	6
Minimum Initial (s)	10.0	10.0	10.0	10.0	15.0	15.0	15.0	15.0
Minimum Split (s)	16.0	16.0	16.0	16.0	21.0	21.0	21.0	21.0
Total Split (s)	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag	Lead-Lag Optimize?							
Recall Mode	Min	Min	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0
Actuated g/C Ratio	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
v/c Ratio	0.57	0.83	0.69	1.42	1.35	0.81	1.29	0.97
Control Delay	24.4	39.0	27.0	226.8	179.4	20.8	153.1	25.5
Queue Delay	0.0	0.0	0.0	0.0	1.5	0.0	46.9	30.0
Total Delay	24.4	39.0	27.0	226.8	180.9	20.8	200.1	55.4
LOS	C	D	C	F	F	C	F	E
Approach Delay	29.0		105.4		155.2		172.5	
Approach LOS	C		F		F		F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 3 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.42
 Intersection Signal Delay: 129.4 Intersection LOS: F
 Intersection Capacity Utilization 123.4% ICU Level of Service H
 Analysis Period (min) 15



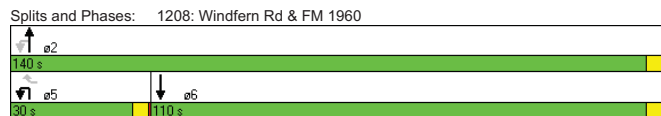
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**2035 PROPOSED NETWORK ANALYSIS
(Nov. 30, 2011)**

Timings SH 6/FM 1960
1208: Windfern Rd & FM 1960 2035 AM with improvements

Lane Group	WBR	NBU	NBT	SBT
Lane Configurations	↑	↓	↑↑↑	↑↑↑
Volume (vph)	57	328	2624	3066
Turn Type	custom	pm+pt		
Protected Phases		5	2	6
Permitted Phases	5	2		
Detector Phases	5	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	8.0	20.0	20.0
Total Split (s)	30.0	30.0	140.0	110.0
Total Split (%)	21.4%	21.4%	100.0%	78.6%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	26.0	136.0	140.0	106.0
Actuated g/C Ratio	0.19	0.97	1.00	0.76
v/c Ratio	0.19	0.94	0.58	0.87
Control Delay	33.7	48.9	0.0	15.3
Queue Delay	0.0	4.4	0.0	56.1
Total Delay	33.7	53.3	0.0	71.3
LOS	C	D	A	E
Approach Delay		5.8	71.3	
Approach LOS		A	E	

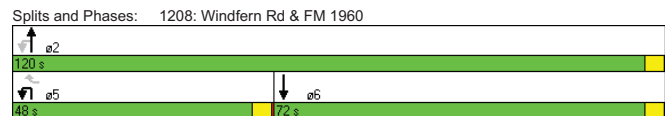
Intersection Summary	
Cycle Length:	140
Actuated Cycle Length:	140
Offset:	100 (71%), Referenced to phase 2:NBTU and 6:SBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	38.8
Intersection Capacity Utilization:	84.1%
ICU Level of Service:	E
Intersection LOS:	D
Analysis Period (min):	15



Timings SH 6/FM 1960
1208: Windfern Rd & FM 1960 2035 PM with improvements

Lane Group	WBR	NBU	NBT	SBT
Lane Configurations	↑	↓	↑↑↑	↑↑↑
Volume (vph)	86	783	3072	3078
Turn Type	custom	pm+pt		
Protected Phases		5	2	6
Permitted Phases	5	2		
Detector Phases	5	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	8.0	20.0	20.0
Total Split (s)	48.0	48.0	120.0	72.0
Total Split (%)	40.0%	40.0%	100.0%	60.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead		Lag
Lead-Lag Optimize?	Yes	Yes		Yes
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	44.0	116.0	120.0	68.0
Actuated g/C Ratio	0.37	0.97	1.00	0.57
v/c Ratio	0.16	1.20	0.69	1.16
Control Delay	23.3	118.7	1.2	103.2
Queue Delay	0.0	47.8	0.0	194.3
Total Delay	23.3	166.5	1.2	297.4
LOS	C	F	A	F
Approach Delay			33.6	297.4
Approach LOS			C	F

Intersection Summary	
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	99 (83%), Referenced to phase 2:NBTU and 6:SBT, Start of Green
Natural Cycle:	110
Control Type:	Pretimed
Maximum v/c Ratio:	1.20
Intersection Signal Delay:	146.9
Intersection Capacity Utilization:	109.5%
ICU Level of Service:	H
Intersection LOS:	F
Analysis Period (min):	15



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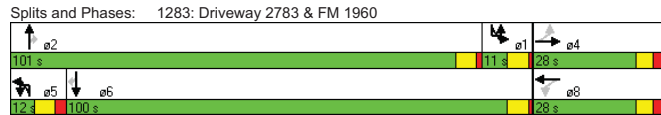
2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings SH 6/FM 1960
1283: Driveway 2783 & FM 1960 2035 AM with improvements

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔		↔		↑↑↑		↖	↑↑↑		↗
Volume (vph)	1	0	127	0	18	284	98	40	2931	19
Turn Type	Perm		Perm		Prot		Perm	Prot		Perm
Protected Phases	4		8		5		2	1		6
Permitted Phases	4		8		5		2	1		6
Detector Phases	4		8		5		2	1		6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	12.0	26.0	26.0	11.0	26.0	26.0
Total Split (s)	28.0	28.0	28.0	28.0	12.0	101.0	101.0	11.0	100.0	100.0
Total Split (%)	20.0%	20.0%	20.0%	20.0%	8.6%	72.1%	72.1%	7.9%	71.4%	71.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	1.0	1.0	1.0	1.0	1.0
Lead/Lag					Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	22.0	22.0	22.0	22.0	8.3	101.2	101.2	7.1	102.8	102.8
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.06	0.72	0.72	0.05	0.73	0.73
v/c Ratio	0.03	0.03	0.81	0.81	0.26	0.84	0.09	0.60	0.85	0.02
Control Delay	28.4	28.4	79.3	79.3	69.6	17.7	2.2	91.4	18.0	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.4	28.4	79.3	79.3	69.6	17.7	2.2	91.4	18.0	3.6
LOS	C		E		E		B	A		A
Approach Delay	28.4		79.3		17.6		19.1			
Approach LOS	C		E		B		B			

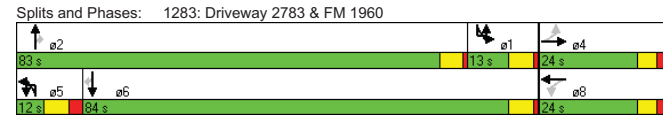
Intersection Summary
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 20.1 Intersection LOS: C
 Intersection Capacity Utilization 79.6% ICU Level of Service D
 Analysis Period (min) 15



Timings SH 6/FM 1960
1283: Driveway 2783 & FM 1960 2035 PM with improvements

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔		↔		↑↑↑		↖	↑↑↑		↗
Volume (vph)	5	0	150	0	6	2858	33	87	2929	14
Turn Type	Perm		Perm		Prot		Perm	Prot		Perm
Protected Phases	4		8		5		2	1		6
Permitted Phases	4		8		5		2	1		6
Detector Phases	4		8		5		2	1		6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	11.0	11.0	11.0	11.0	12.0	26.0	26.0	11.0	26.0	26.0
Total Split (s)	24.0	24.0	24.0	24.0	12.0	83.0	83.0	13.0	84.0	84.0
Total Split (%)	20.0%	20.0%	20.0%	20.0%	10.0%	69.2%	69.2%	10.8%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	1.0	1.0	1.0	1.0	1.0
Lead/Lag					Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	19.5	19.5	19.5	19.5	8.1	79.5	79.5	9.0	85.3	85.3
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.07	0.66	0.66	0.08	0.71	0.71
v/c Ratio	0.06	0.06	0.87	0.87	0.24	0.92	0.03	0.82	0.88	0.01
Control Delay	25.7	25.7	81.7	81.7	58.5	23.6	2.9	96.2	18.6	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.7	25.7	81.7	81.7	58.5	23.6	2.9	96.2	18.6	3.4
LOS	C		F		E		C	A		A
Approach Delay	25.7		81.7		23.7		21.1			
Approach LOS	C		F		C		C			

Intersection Summary
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 24.2 Intersection LOS: C
 Intersection Capacity Utilization 87.8% ICU Level of Service E
 Analysis Period (min) 15



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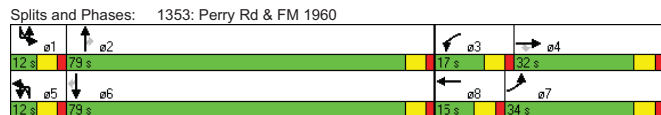
2035 PROPOSED NETWORK ANALYSIS

(Nov. 30, 2011)

Timings SH 6/FM 1960
1353: Perry Rd & FM 1960 2035 AM with improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖	↗	↘	↖	↗	↖	↗	↘	↖	↗	↘	
Volume (vph)	407	505	148	115	141	100	2728	55	180	2493	65	
Turn Type	Prot	Perm	Perm	Prot	Prot	Prot	Perm	Prot	Perm	Perm	Perm	
Protected Phases	7	4		3	8	5	2		1	6		
Permitted Phases			4					2			6	
Detector Phases	7	4	4	3	8	5	2	2	1	6	6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	15.0	5.0	14.5	14.5		
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	22.0	12.0	21.0	21.0		
Total Split (s)	34.0	32.0	32.0	17.0	15.0	12.0	79.0	12.0	79.0	79.0		
Total Split (%)	24.3%	22.9%	22.9%	12.1%	10.7%	8.6%	56.4%	56.4%	8.6%	56.4%	56.4%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min	C-Min	
Act Effct Green (s)	30.0	28.1	28.1	12.9	11.0	8.0	75.0	8.0	75.0	75.0		
Actuated g/C Ratio	0.21	0.20	0.20	0.09	0.08	0.06	0.54	0.54	0.06	0.54	0.54	
v/c Ratio	1.17	0.77	0.45	0.77	1.18	0.64	1.09	0.07	1.21	0.99	0.08	
Control Delay	147.3	61.4	36.7	90.7	157.4	80.0	78.6	8.2	185.3	48.3	7.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	147.3	61.4	36.7	90.7	157.4	80.0	78.6	8.2	185.3	48.3	7.4	
LOS	F	E	D	F	F	F	E	A	F	D	A	
Approach Delay	90.9			139.6			77.3			58.1		
Approach LOS	F			F			E			E		

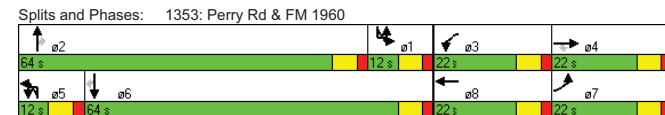
Intersection Summary
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.21
 Intersection Signal Delay: 75.6 Intersection LOS: E
 Intersection Capacity Utilization 104.4% ICU Level of Service G
 Analysis Period (min) 15



Timings SH 6/FM 1960
1353: Perry Rd & FM 1960 2035 PM with improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖	↗	↘	↖	↗	↖	↗	↘	↖	↗	↘	
Volume (vph)	272	178	139	189	360	182	2655	41	86	2650	235	
Turn Type	Prot	Perm	Perm	Prot	Prot	Prot	Perm	Prot	Perm	Perm	Perm	
Protected Phases	7	4		3	8	5	2		1	6		
Permitted Phases			4					2			6	
Detector Phases	7	4	4	3	8	5	2	2	1	6	6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	15.0	5.0	14.5	14.5		
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0	12.0	22.0	12.0	21.0	21.0		
Total Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	12.0	64.0	64.0	12.0	64.0	
Total Split (%)	18.3%	18.3%	18.3%	18.3%	18.3%	10.0%	53.3%	53.3%	10.0%	53.3%	53.3%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min	
Act Effct Green (s)	18.0	18.5	18.5	17.5	18.0	8.0	60.0	60.0	8.0	60.0	60.0	
Actuated g/C Ratio	0.15	0.15	0.15	0.15	0.15	0.07	0.50	0.50	0.07	0.50	0.50	
v/c Ratio	1.11	0.35	0.47	0.79	1.12	0.98	1.13	0.06	0.77	1.13	0.29	
Control Delay	135.7	47.7	25.3	71.9	120.3	110.3	95.7	8.1	77.1	94.8	7.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	135.7	47.7	25.3	71.9	120.3	110.3	95.7	8.1	77.1	94.8	7.3	
LOS	F	D	C	E	F	F	F	A	E	F	A	
Approach Delay	83.1			107.9			95.5			87.1		
Approach LOS	F			F			F			F		

Intersection Summary
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.13
 Intersection Signal Delay: 92.2 Intersection LOS: F
 Intersection Capacity Utilization 101.5% ICU Level of Service G
 Analysis Period (min) 15



****REPLACED****

2035 PROPOSED NETWORK ANALYSIS

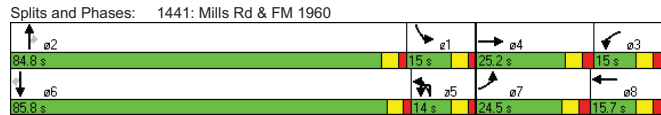
(Nov. 30, 2011)

Timings SH 6/FM 1960
 1441: Mills Rd & FM 1960 2035 AM with improvements

	↖	→	↗	↖	↖	↖	↖	↖	↖	↖
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↖↖	↖↖	↖↖	↖↖	↖↖	↖	↖↖	↖↖	↖
Volume (vph)	382	481	71	70	107	2853	129	220	2698	173
Turn Type	Prot		Prot		Prot		Perm	Prot		Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phases	7	4	3	8	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.1	22.1	15.0	15.0	10.0	35.0	35.0	15.0	40.0	40.0
Total Split (s)	24.5	25.2	15.0	15.7	14.0	84.8	84.8	15.0	85.8	85.8
Total Split (%)	17.5%	18.0%	10.7%	11.2%	10.0%	60.6%	60.6%	10.7%	61.3%	61.3%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	2.5	2.5	2.5	2.5	1.6	1.6	1.6	1.6	1.6	1.6
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	20.2	21.2	10.1	11.1	10.0	81.7	81.7	11.0	82.7	82.7
Actuated g/C Ratio	0.14	0.15	0.07	0.08	0.07	0.58	0.58	0.08	0.59	0.59
v/c Ratio	0.84	1.06	0.31	0.45	0.91	1.05	0.15	0.89	0.98	0.19
Control Delay	73.6	110.9	64.7	36.5	102.3	59.0	6.2	95.3	39.7	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.6	110.9	64.7	36.5	102.3	59.0	6.2	95.3	39.7	5.5
LOS	E	F	E	D	F	E	A	F	D	A
Approach Delay		95.2		46.3		59.7			41.8	
Approach LOS		F		D		E			D	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.06
 Intersection Signal Delay: 56.2 Intersection LOS: E
 Intersection Capacity Utilization 92.6% ICU Level of Service F
 Analysis Period (min) 15



Timings SH 6/FM 1960
 1441: Mills Rd & FM 1960 2035 PM with improvements

	↖	→	↗	↖	↖	↖	↖	↖	↖	↖
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↖↖	↖↖	↖↖	↖↖	↖↖	↖	↖↖	↖↖	↖
Volume (vph)	234	245	271	239	71	2881	131	148	2682	440
Turn Type	Prot		Prot		Prot		Perm	Prot		Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phases	7	4	3	8	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.1	22.1	15.0	15.0	10.0	35.0	35.0	15.0	40.0	40.0
Total Split (s)	22.1	22.1	15.0	15.0	12.0	67.9	67.9	15.0	70.9	70.9
Total Split (%)	18.4%	18.4%	12.5%	12.5%	10.0%	56.6%	56.6%	12.5%	59.1%	59.1%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	2.5	2.5	2.5	2.5	1.6	1.6	1.6	1.6	1.6	1.6
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	16.1	16.1	11.0	11.0	8.0	65.9	65.9	11.0	68.9	68.9
Actuated g/C Ratio	0.13	0.13	0.09	0.09	0.07	0.55	0.55	0.09	0.57	0.57
v/c Ratio	0.55	0.59	0.94	1.04	1.16	1.12	0.16	0.51	1.00	0.45
Control Delay	53.0	53.3	91.3	107.0	100.6	87.7	6.3	58.1	42.5	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.0	53.3	91.3	107.0	100.6	87.7	6.3	58.1	42.5	5.7
LOS	D	D	F	F	F	F	A	E	D	A
Approach Delay		53.2		99.9		85.2			38.2	
Approach LOS		D		F		F			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.12
 Intersection Signal Delay: 64.0 Intersection LOS: E
 Intersection Capacity Utilization 89.4% ICU Level of Service E
 Analysis Period (min) 15
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

