

2020 Left-Turn Prohibition  
1: Trailwood Village Dr. & Kingwood Dr.

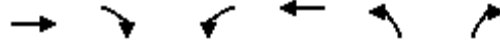
PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø2	ø3	ø4	ø5	ø7	ø8
Lane Configurations												
Volume (vph)	2095	158	0	1401	79	47						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	0.95						
Frt	0.989				0.992	0.850						
Flt Protected					0.955							
Satd. Flow (prot)	3500	0	1863	3539	1765	1504						
Flt Permitted					0.955							
Satd. Flow (perm)	3500	0	1863	3539	1765	1504						
Right Turn on Red		Yes				Yes						
Satd. Flow (RTOR)	20				2	12						
Link Speed (mph)	40			40	30							
Link Distance (ft)	272			542	1092							
Travel Time (s)	4.6			9.2	24.8							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92						
Growth Factor	117%	117%	117%	117%	117%	117%						
Adj. Flow (vph)	2664	201	0	1782	100	60						
Shared Lane Traffic (%)						10%						
Lane Group Flow (vph)	2865	0	0	1782	106	54						
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Left	Left	Right						
Median Width(ft)	40			40	12							
Link Offset(ft)	0			0	0							
Crosswalk Width(ft)	16			16	16							
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Turning Speed (mph)		9	15		15	9						
Number of Detectors	2		1	2	1	1						
Detector Template	Thru		Left	Thru	Left	Right						
Leading Detector (ft)	100		20	100	20	20						
Trailing Detector (ft)	0		0	0	0	0						
Detector 1 Position(ft)	0		0	0	0	0						
Detector 1 Size(ft)	6		20	6	20	20						
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0						
Detector 2 Position(ft)	94			94								
Detector 2 Size(ft)	6			6								
Detector 2 Type	Cl+Ex			Cl+Ex								
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0								
Turn Type	NA		Perm	NA	NA	Perm						
Protected Phases	2 7			6	8 3		2	3	4	5	7	8
Permitted Phases			6			8 3						
Detector Phase	2 7		6	6	8 3	8 3						
Switch Phase												
Minimum Initial (s)			2.0	2.0			10.0	1.0	5.0	3.0	1.0	5.0

2020 Left-Turn Prohibition  
1: Trailwood Village Dr. & Kingwood Dr.

PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø2	ø3	ø4	ø5	ø7	ø8
Minimum Split (s)			22.0	22.0			29.5	14.5	11.0	9.0	8.0	21.0
Total Split (s)			86.0	86.0			118.0	22.0	11.0	32.0	11.0	22.0
Total Split (%)			57.0%	57.0%			78%	15%	7%	21%	7%	15%
Maximum Green (s)			80.0	80.0			112.0	16.0	5.0	26.0	5.0	16.0
Yellow Time (s)			4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)			2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0	0.0								
Total Lost Time (s)			6.0	6.0								
Lead/Lag			Lag	Lag						Lead		
Lead-Lag Optimize?			Yes	Yes						Yes		
Vehicle Extension (s)			0.2	0.2			0.2	0.2	0.2	0.2	0.2	0.2
Recall Mode			C-Max	C-Max			C-Max	Max	None	None	None	Max
Walk Time (s)			5.0	5.0			5.0					
Flash Dont Walk (s)			11.0	11.0			11.0					
Pedestrian Calls (#/hr)			0	0			0					
Act Effect Green (s)	123.0			84.2	16.0	16.0						
Actuated g/C Ratio	0.81			0.56	0.11	0.11						
v/c Ratio	1.00			0.90	0.56	0.32						
Control Delay	13.9			38.0	75.3	54.8						
Queue Delay	18.5			0.0	0.0	0.0						
Total Delay	32.5			38.0	75.3	54.8						
LOS	C			D	E	D						
Approach Delay	32.5			38.0	68.4							
Approach LOS	C			D	E							

Intersection Summary

Area Type:	Other
Cycle Length:	151
Actuated Cycle Length:	151
Offset:	0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle:	150
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.14
Intersection Signal Delay:	35.7
Intersection LOS:	D
Intersection Capacity Utilization:	89.9%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 1: Trailwood Village Dr. & Kingwood Dr.



2020 Left-Turn Prohibition  
4: Green Oak Dr. & Kingwood Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	1809	82	0	0	0	0	172	163	304	92	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>		0.994							0.850			
Fl <sub>t</sub> Protected	0.950									0.950		
Satd. Flow (prot)	1770	3518	0	0	0	0	0	1863	1583	1770	1863	0
Fl <sub>t</sub> Permitted	0.950									0.950		
Satd. Flow (perm)	1770	3518	0	0	0	0	0	1863	1583	1770	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6							109			
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		2489			1560			515			89	
Travel Time (s)		42.4			26.6			11.7			2.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%
Adj. Flow (vph)	46	2301	104	0	0	0	0	219	207	387	117	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	2405	0	0	0	0	0	219	207	387	117	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2	1	1	2	
Detector Template	Left	Thru						Thru	Right	Left	Thru	
Leading Detector (ft)	20	100						100	20	20	100	
Trailing Detector (ft)	0	0						0	0	0	0	
Detector 1 Position(ft)	0	0						0	0	0	0	
Detector 1 Size(ft)	20	6						6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Prot	NA						NA	Perm	Split	NA	
Protected Phases	15	2						8		4	4	
Permitted Phases										8		

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Lane Group	ø6
Lane Configurations	
Volume (vph)	
Ideal Flow (vphp)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Growth Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	

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2020 Left-Turn Prohibition  
4: Green Oak Dr. & Kingwood Dr.

PM Peak Hour

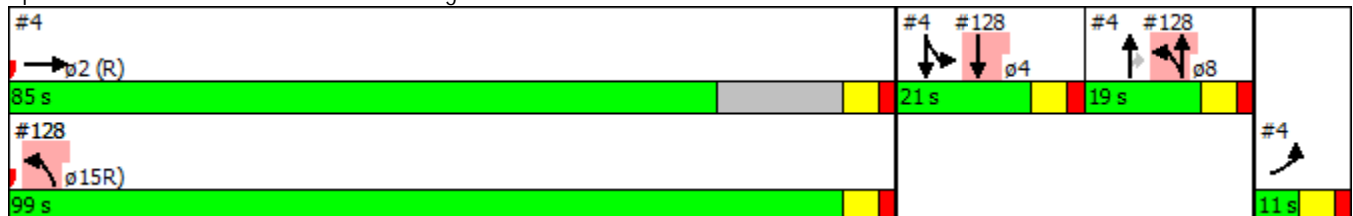


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	15	2						8	8	4	4	
Switch Phase												
Minimum Initial (s)	5.0	4.0						5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	20.0						19.0	19.0	11.0	11.0	
Total Split (s)	11.0	85.0						19.0	19.0	21.0	21.0	
Total Split (%)	7.3%	56.7%						12.7%	12.7%	14.0%	14.0%	
Maximum Green (s)	5.0	79.0						13.0	13.0	15.0	15.0	
Yellow Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0	6.0	6.0	6.0	
Lead/Lag								Lag	Lag	Lead	Lead	
Lead-Lag Optimize?								Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max						None	None	None	None	
Walk Time (s)		4.0						6.0	6.0			
Flash Dont Walk (s)		10.0						7.0	7.0			
Pedestrian Calls (#/hr)		0						0	0			
Act Effct Green (s)	5.0	93.0						13.0	13.0	15.0	15.0	
Actuated g/C Ratio	0.03	0.62						0.09	0.09	0.10	0.10	
v/c Ratio	0.78	1.10						1.36	0.88	2.19	0.63	
Control Delay	142.8	83.3						245.2	65.3	555.3	24.0	
Queue Delay	69.3	0.0						0.5	0.0	0.0	0.0	
Total Delay	212.1	83.3						245.7	65.3	555.3	24.0	
LOS	F	F						F	E	F	C	
Approach Delay		85.7						158.0			431.9	
Approach LOS		F						F			F	

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:, Start of Green  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.19  
 Intersection Signal Delay: 146.4  
 Intersection LOS: F  
 Intersection Capacity Utilization 141.4%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 4: Green Oak Dr. & Kingwood Dr.



2020 Left-Turn Prohibition  
4: Green Oak Dr. & Kingwood Dr.

PM Peak Hour

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Lane Group	ø6
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	10.0
Total Split (s)	99.0
Total Split (%)	66%
Maximum Green (s)	93.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

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2020 Left-Turn Prohibition  
6: Sorters & Northpark Dr.

PM Peak Hour



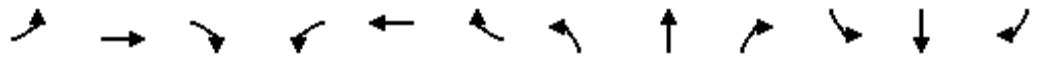
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	49	327	326	0	196	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				
Flt Protected	0.950					0.969
Satd. Flow (prot)	1770	1583	1863	0	0	1805
Flt Permitted	0.950					0.969
Satd. Flow (perm)	1770	1583	1863	0	0	1805
Link Speed (mph)	40		30			30
Link Distance (ft)	1488		70			496
Travel Time (s)	25.4		1.6			11.3
Peak Hour Factor	0.61	0.94	0.92	0.92	0.83	0.84
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	91	393	400	0	267	153
Shared Lane Traffic (%)						
Lane Group Flow (vph)	91	393	400	0	0	420
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	20		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	51.8%
Analysis Period (min)	15
	ICU Level of Service A

2020 Left-Turn Prohibition  
8: Lake Houston Parkway & Northpark Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	105	657	533	230	362	32	567	293	298	22	198	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	2		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Frt		0.931			0.985			0.923			0.951	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3295	0	1770	3486	0	3433	3267	0	3433	3366	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3295	0	1770	3486	0	3433	3267	0	3433	3366	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		149			9			190			48	
Link Speed (mph)		45			40			30			40	
Link Distance (ft)		2785			2651			1043			1141	
Travel Time (s)		42.2			45.2			23.7			19.4	
Peak Hour Factor	0.88	0.94	0.90	0.89	0.87	0.67	0.94	0.86	0.83	0.69	0.85	0.81
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	135	790	669	292	470	54	682	385	406	36	263	127
Shared Lane Traffic (%)												
Lane Group Flow (vph)	135	1459	0	292	524	0	682	791	0	36	390	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		50			50			60			60	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Minimum Split (s)	13.0	21.0		13.0	21.0		13.0	21.0		13.0	21.0	
Total Split (s)	25.0	54.0		25.0	54.0		36.0	56.0		15.0	22.0	
Total Split (%)	16.7%	36.0%		16.7%	36.0%		24.0%	37.3%		10.0%	14.7%	
Maximum Green (s)	19.0	48.0		19.0	48.0		30.0	50.0		9.0	16.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		10.0			10.0			10.0			10.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effect Green (s)	19.0	48.0		19.0	48.0		30.0	50.0		9.0	29.0	
Actuated g/C Ratio	0.13	0.32		0.13	0.32		0.20	0.33		0.06	0.19	
v/c Ratio	0.60	1.26		1.30	0.47		0.99	0.65		0.18	0.57	



2020 Left-Turn Prohibition  
 8: Lake Houston Parkway & Northpark Dr.

PM Peak Hour

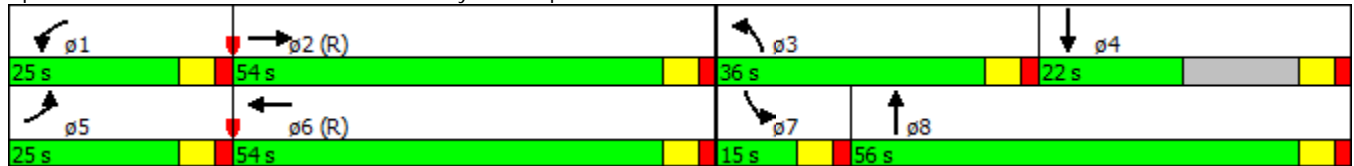


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	58.5	150.2		214.1	41.7		92.1	34.6		69.2	51.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	58.5	150.2		214.1	41.7		92.1	34.6		69.2	51.4	
LOS	E	F		F	D		F	C		E	D	
Approach Delay		142.4			103.4			61.2			52.9	
Approach LOS		F			F			E			D	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	130 (87%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle:	140
Control Type:	Pretimed
Maximum v/c Ratio:	1.30
Intersection Signal Delay:	98.4
Intersection LOS:	F
Intersection Capacity Utilization	102.0%
ICU Level of Service	G
Analysis Period (min)	15

Splits and Phases: 8: Lake Houston Parkway & Northpark Dr.



2020 Left-Turn Prohibition  
11: Woodland Hills & Northpark Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	59	1364	179	171	936	108	277	149	276	138	159	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	2		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.97	0.95	0.95	1.00	0.95	0.95
Frt		0.981			0.979			0.905			0.966	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3472	0	1770	3465	0	3433	3203	0	1770	3419	0
Flt Permitted	0.144			0.048			0.334			0.211		
Satd. Flow (perm)	268	3472	0	89	3465	0	1207	3203	0	393	3419	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			20			152			20	
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1613			4845			3684			2505	
Travel Time (s)		24.4			73.4			71.8			48.8	
Peak Hour Factor	0.78	0.99	0.88	0.89	0.94	0.68	0.92	0.87	0.92	0.91	0.72	0.69
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	85	1557	230	217	1125	179	340	194	339	171	250	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	1787	0	217	1304	0	340	533	0	171	322	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		40			100			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		

2020 Left-Turn Prohibition  
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PM Peak Hour

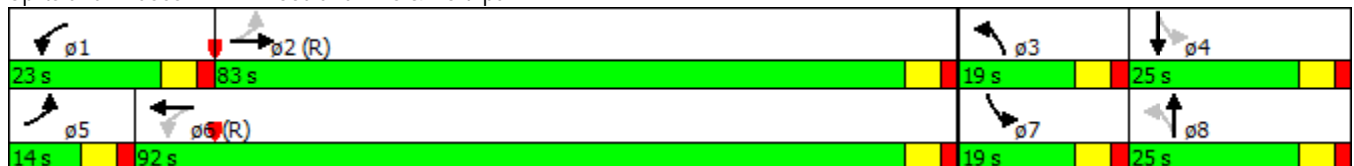


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	8.0	10.0		10.0	10.0		8.0	8.0		10.0	4.0	
Minimum Split (s)	14.0	26.0		16.0	26.0		14.0	14.0		16.0	20.0	
Total Split (s)	14.0	83.0		23.0	92.0		19.0	25.0		19.0	25.0	
Total Split (%)	9.3%	55.3%		15.3%	61.3%		12.7%	16.7%		12.7%	16.7%	
Maximum Green (s)	8.0	77.0		17.0	86.0		13.0	19.0		13.0	19.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	C-Max		Max	C-Max		Max	Max		Max	Max	
Walk Time (s)	0.0	4.0		0.0	4.0		0.0	0.0		0.0	4.0	
Flash Dont Walk (s)	0.0	16.0		0.0	16.0		0.0	0.0		0.0	10.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)	85.0	77.0		100.0	86.0		32.0	19.0		32.0	19.0	
Actuated g/C Ratio	0.57	0.51		0.67	0.57		0.21	0.13		0.21	0.13	
v/c Ratio	0.37	1.00		0.87	0.65		0.76	1.02dr		0.84	0.72	
Control Delay	14.6	56.7		75.5	13.8		49.2	54.3		80.5	68.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.6	56.7		75.5	13.8		49.2	54.3		80.5	68.7	
LOS	B	E		E	B		D	D		F	E	
Approach Delay		54.8			22.6			52.3			72.8	
Approach LOS		D			C			D			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 45.9  
 Intersection LOS: D  
 Intersection Capacity Utilization 103.1%  
 ICU Level of Service G  
 Analysis Period (min) 15  
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 11: Woodland Hills & Northpark Dr.



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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑		↔↔	↑↑					↔	↑↑↑↑	↔
Volume (vph)	0	304	131	776	875	0	0	0	0	316	172	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	0		2	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.86	0.86	0.97	0.95	1.00	1.00	1.00	1.00	0.86	0.81	0.86
Flt		0.956									0.997	0.850
Flt Protected				0.950						0.950	0.978	
Satd. Flow (prot)	0	6126	0	3433	3539	0	0	0	0	1522	4414	1362
Flt Permitted				0.950						0.950	0.978	
Satd. Flow (perm)	0	6126	0	3433	3539	0	0	0	0	1522	4414	1362
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54									1	233
Link Speed (mph)		40			30			55			55	
Link Distance (ft)		3872			281			368			304	
Travel Time (s)		66.0			6.4			4.6			3.8	
Peak Hour Factor	0.92	0.82	0.86	0.90	0.94	0.92	0.92	0.92	0.92	0.88	0.78	0.76
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	419	172	974	1052	0	0	0	0	406	249	91
Shared Lane Traffic (%)										50%		10%
Lane Group Flow (vph)	0	591	0	974	1052	0	0	0	0	203	461	82
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		50			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	1
Detector Template		Thru		Left	Thru					Left	Thru	Right
Leading Detector (ft)		100		20	100					20	100	20
Trailing Detector (ft)		0		0	0					0	0	0
Detector 1 Position(ft)		0		0	0					0	0	0
Detector 1 Size(ft)		6		20	6					20	6	20
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 1 Queue (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 1 Delay (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1 11 21	1 2 11						3 4	
Permitted Phases										3 4		3 4



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14: US 59 SBFR & Northpark Dr.

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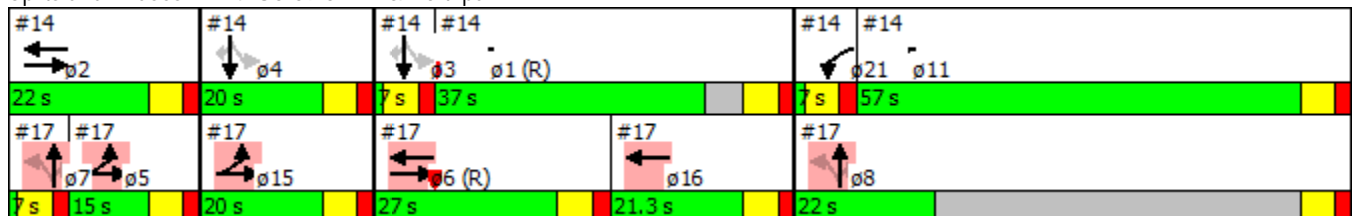


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2		1 11 21	1 2 11					3 4	3 4	3 4
Switch Phase												
Minimum Initial (s)		7.0										
Minimum Split (s)		14.0										
Total Split (s)		22.0										
Total Split (%)		14.3%										
Maximum Green (s)		16.0										
Yellow Time (s)		4.0										
All-Red Time (s)		2.0										
Lost Time Adjust (s)		0.0										
Total Lost Time (s)		6.0										
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0										
Recall Mode		None										
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effect Green (s)		17.7		97.6	108.3					21.0	21.0	21.0
Actuated g/C Ratio		0.11		0.63	0.70					0.14	0.14	0.14
v/c Ratio		0.79		0.45	0.42					0.98	0.93dl	0.21
Control Delay		68.8		2.4	1.6					122.8	73.5	1.3
Queue Delay		0.0		1.2	0.5					0.0	0.0	0.0
Total Delay		68.8		3.6	2.1					122.8	73.5	1.3
LOS		E		A	A					F	E	A
Approach Delay		68.8			2.8						79.0	
Approach LOS		E			A						E	

Intersection Summary

Area Type: Other  
 Cycle Length: 154.3  
 Actuated Cycle Length: 154.3  
 Offset: 96 (62%), Referenced to phase 1:WBTL and 6:, Start of Green  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 31.3  
 Intersection LOS: C  
 Intersection Capacity Utilization 92.6%  
 ICU Level of Service F  
 Analysis Period (min) 15  
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 14: US 59 SBFR & Northpark Dr.



2020 Left-Turn Prohibition  
 14: US 59 SBFR & Northpark Dr.

PM Peak Hour

Lane Group	ø1	ø3	ø4	ø5	ø6	ø7	ø8	ø11	ø15	ø16	ø21
Detector Phase											
Switch Phase											
Minimum Initial (s)	3.0	1.0	5.0	2.7	5.0	1.0	1.0	3.0	3.0	4.0	1.0
Minimum Split (s)	21.3	7.0	11.7	8.7	27.0	7.0	21.7	9.0	9.0	21.3	7.0
Total Split (s)	37.0	7.0	20.0	15.0	27.0	7.0	22.0	57.0	20.0	21.3	7.0
Total Split (%)	24%	5%	13%	10%	17%	5%	14%	37%	13%	14%	5%
Maximum Green (s)	31.0	1.0	14.0	9.0	21.0	1.0	16.0	51.0	14.0	15.3	1.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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
Lost Time Adjust (s)											
Total Lost Time (s)											
Lead/Lag	Lag	Lead		Lag	Lead	Lead		Lag		Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes		Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	None	None	None	C-Max	None	None	None	None	None	None
Walk Time (s)					5.0		7.0				
Flash Dont Walk (s)					16.0		8.0				
Pedestrian Calls (#/hr)					0		0				
Act Effect Green (s)											
Actuated g/C Ratio											
v/c Ratio											
Control Delay											
Queue Delay											
Total Delay											
LOS											
Approach Delay											
Approach LOS											
Intersection Summary											

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17: US 59 NBFR & Northpark Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑	↔↔			
Volume (vph)	141	495	0	0	1061	304	553	541	1115	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	0		0	0		0
Storage Lanes	2		0	0		2	2		2	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.86	0.86	0.97	0.95	0.88	1.00	1.00	1.00
Fr <sub>t</sub>					0.967				0.850			
Fl <sub>t</sub> Protected	0.950						0.950					
Satd. Flow (prot)	3433	3539	0	0	6196	0	3433	3539	2787	0	0	0
Fl <sub>t</sub> Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	6196	0	3433	3539	2787	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					45				708			
Link Speed (mph)		30			45			55			55	
Link Distance (ft)		281			1797			365			309	
Travel Time (s)		6.4			27.2			4.5			3.8	
Peak Hour Factor	0.75	0.94	0.92	0.92	0.89	0.91	0.93	0.96	0.90	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	212	595	0	0	1347	377	672	637	1400	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	212	595	0	0	1724	0	672	637	1400	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2	1			
Detector Template	Left	Thru			Thru		Left	Thru	Right			
Leading Detector (ft)	20	100			100		20	100	20			
Trailing Detector (ft)	0	0			0		0	0	0			
Detector 1 Position(ft)	0	0			0		0	0	0			
Detector 1 Size(ft)	20	6			6		20	6	20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Prot	NA			NA		Perm	NA	Perm			
Protected Phases	5 15	5 6 15			6 16			7 8				
Permitted Phases							7 8		7 8			





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17: US 59 NBFR & Northpark Dr.

PM Peak Hour

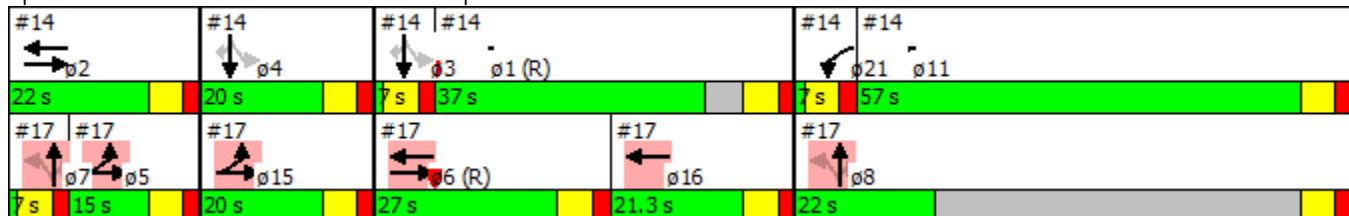


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5 15	5 6 15			6 16		7 8	7 8	7 8			
Switch Phase												
Minimum Initial (s)												
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)												
Recall Mode												
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	29.0	56.0			42.3		65.0	65.0	65.0			
Actuated g/C Ratio	0.19	0.36			0.27		0.42	0.42	0.42			
v/c Ratio	0.33	0.46			1.00		0.46	0.43	0.88			
Control Delay	37.5	3.0			74.6		33.5	32.6	27.4			
Queue Delay	0.0	3.3			0.0		0.0	0.0	0.0			
Total Delay	37.5	6.3			74.6		33.5	32.6	27.4			
LOS	D	A			E		C	C	C			
Approach Delay		14.5			74.6			30.1				
Approach LOS		B			E			C				

Intersection Summary

Area Type:	Other
Cycle Length:	154.3
Actuated Cycle Length:	154.3
Offset:	96 (62%), Referenced to phase 1:WBTL and 6:, Start of Green
Natural Cycle:	100
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.00
Intersection Signal Delay:	42.3
Intersection LOS:	D
Intersection Capacity Utilization	92.6%
ICU Level of Service	F
Analysis Period (min)	15

Splits and Phases: 17: US 59 NBFR & Northpark Dr.




















2020 Left-Turn Prohibition  
 17: US 59 NBFR & Northpark Dr.

PM Peak Hour

Lane Group	ø1	ø2	ø3	ø4	ø5	ø6	ø7	ø8	ø11	ø15	ø16	ø21				
Detector Phase																
Switch Phase																
Minimum Initial (s)	3.0	7.0	1.0	5.0	2.7	5.0	1.0	1.0	3.0	3.0	4.0	1.0				
Minimum Split (s)	21.3	14.0	7.0	11.7	8.7	27.0	7.0	21.7	9.0	9.0	21.3	7.0				
Total Split (s)	37.0	22.0	7.0	20.0	15.0	27.0	7.0	22.0	57.0	20.0	21.3	7.0				
Total Split (%)	24%	14%	5%	13%	10%	17%	5%	14%	37%	13%	14%	5%				
Maximum Green (s)	31.0	16.0	1.0	14.0	9.0	21.0	1.0	16.0	51.0	14.0	15.3	1.0				
Yellow Time (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				
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				
Lost Time Adjust (s)																
Total Lost Time (s)																
Lead/Lag	Lag		Lead		Lag		Lead		Lead		Lag		Lag		Lead	
Lead-Lag Optimize?	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0				
Recall Mode	C-Max	None	None	None	None	C-Max	None	None	None	None	None	None				
Walk Time (s)							5.0	7.0								
Flash Dont Walk (s)							16.0	8.0								
Pedestrian Calls (#/hr)							0	0								
Act Effect Green (s)																
Actuated g/C Ratio																
v/c Ratio																
Control Delay																
Queue Delay																
Total Delay																
LOS																
Approach Delay																
Approach LOS																
Intersection Summary																

2020 Left-Turn Prohibition  
19: US 59 NBFR & Hamblen

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 				
Volume (vph)	4	96	0	0	0	123	0	808	878	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00
Frt						0.865			0.850			
Flt Protected		0.998										
Satd. Flow (prot)	0	1859	0	0	0	1611	0	3539	1583	0	0	0
Flt Permitted		0.998										
Satd. Flow (perm)	0	1859	0	0	0	1611	0	3539	1583	0	0	0
Link Speed (mph)		35			35			55			55	
Link Distance (ft)		168			123			612			7207	
Travel Time (s)		3.3			2.4			7.6			89.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	5	118	0	0	0	151	0	992	1078	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	0	0	0	151	0	992	1078	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	74.1%
Analysis Period (min)	15
	ICU Level of Service D

2020 Left-Turn Prohibition  
20: Loop 494 & Northpark Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	1433	61	192	989	155	89	158	420	205	245	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	150		150	150		150
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25		25	25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994			0.980				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3518	0	1770	3468	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3518	0	1770	3468	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			14				175			169
Link Speed (mph)		45			45			30				30
Link Distance (ft)		1797			1638			3315				2861
Travel Time (s)		27.2			24.8			75.3				65.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	25	1760	75	236	1215	190	109	194	516	252	301	244
Shared Lane Traffic (%)												
Lane Group Flow (vph)	25	1835	0	236	1405	0	109	194	516	252	301	244
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			4

2020 Left-Turn Prohibition  
20: Loop 494 & Northpark Dr.

PM Peak Hour

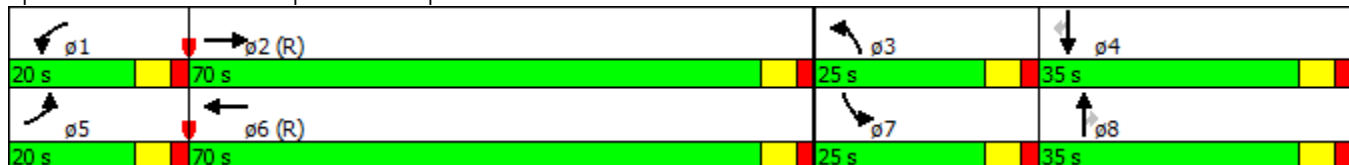


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	12.0		7.0	12.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	18.0		13.0	18.0		11.3	11.3	11.3	11.3	11.3	11.3
Total Split (s)	20.0	70.0		20.0	70.0		25.0	35.0	35.0	25.0	35.0	35.0
Total Split (%)	13.3%	46.7%		13.3%	46.7%		16.7%	23.3%	23.3%	16.7%	23.3%	23.3%
Maximum Green (s)	14.0	64.0		14.0	64.0		19.0	29.0	29.0	19.0	29.0	29.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
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
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Walk Time (s)		0.0			0.0			0.0	0.0		0.0	0.0
Flash Dont Walk (s)		0.0			0.0			0.0	0.0		0.0	0.0
Pedestrian Calls (#/hr)		0			0			0	0		0	0
Act Effect Green (s)	7.6	64.0		14.0	75.2		14.3	29.0	29.0	19.0	33.7	33.7
Actuated g/C Ratio	0.05	0.43		0.09	0.50		0.10	0.19	0.19	0.13	0.22	0.22
v/c Ratio	0.28	1.22		1.43	0.81		0.64	0.54	1.15	1.12	0.72	0.50
Control Delay	75.6	143.3		270.5	36.6		97.4	50.9	118.2	154.8	65.2	20.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.6	143.3		270.5	36.6		97.4	50.9	118.2	154.8	65.2	20.6
LOS	E	F		F	D		F	D	F	F	E	C
Approach Delay		142.4			70.3			99.5			79.9	
Approach LOS		F			E			F			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 60 (40%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 130  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.43  
 Intersection Signal Delay: 102.7  
 Intersection LOS: F  
 Intersection Capacity Utilization 104.2%  
 ICU Level of Service G  
 Analysis Period (min) 15

Splits and Phases: 20: Loop 494 & Northpark Dr.



2020 Left-Turn Prohibition  
23: Brookdale & Northpark Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	141	1332	54	9	1047	31	54	13	21	36	14	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.993			0.994			0.968			0.906	
Flt Protected	0.950			0.950				0.971			0.989	
Satd. Flow (prot)	1770	3514	0	1770	3518	0	0	3327	0	0	3171	0
Flt Permitted	0.950			0.950				0.688			0.855	
Satd. Flow (perm)	1770	3514	0	1770	3518	0	0	2357	0	0	2742	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			3			24			159	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		4845			2785			1365			843	
Travel Time (s)		73.4			42.2			31.0			19.2	
Peak Hour Factor	0.77	0.97	0.84	0.75	0.94	0.70	0.79	0.65	0.88	0.69	0.44	0.69
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	207	1552	73	14	1259	50	77	23	27	59	36	159
Shared Lane Traffic (%)												
Lane Group Flow (vph)	207	1625	0	14	1309	0	0	127	0	0	254	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		100			100			45			45	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Minimum Split (s)	12.0	19.0		12.0	19.0		12.0	21.0		12.0	21.0	
Total Split (s)	30.0	70.0		20.0	60.0		30.0	30.0		30.0	30.0	
Total Split (%)	20.0%	46.7%		13.3%	40.0%		20.0%	20.0%		20.0%	20.0%	
Maximum Green (s)	24.0	64.0		14.0	54.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Walk Time (s)	0.0	4.0		0.0	4.0		0.0	4.0		0.0	4.0	
Flash Dont Walk (s)	0.0	9.0		0.0	9.0		0.0	11.0		0.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)	24.0	64.0		14.0	54.0		24.0	48.0		24.0	48.0	
Actuated g/C Ratio	0.16	0.43		0.09	0.36		0.32	0.32		0.32	0.32	
v/c Ratio	0.73	1.08		0.08	1.03		0.20	0.33		0.33	0.33	

2020 Left-Turn Prohibition  
23: Brookdale & Northpark Dr.

PM Peak Hour

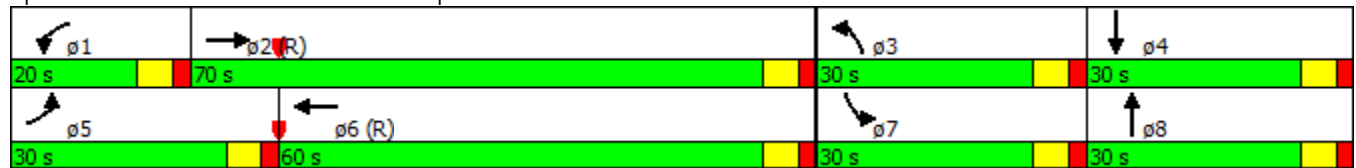


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	64.1	83.4		68.6	53.8			26.7			13.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	64.1	83.4		68.6	53.8			26.7			13.4	
LOS	E	F		E	D			C			B	
Approach Delay		81.2			53.9			26.7			13.4	
Approach LOS		F			D			C			B	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	55 (37%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	1.08
Intersection Signal Delay:	64.2
Intersection LOS:	E
Intersection Capacity Utilization	78.7%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 23: Brookdale & Northpark Dr.





2020 Left-Turn Prohibition  
26: Northpark Dr. & Mills Branch

PM Peak Hour



Lane Group	WBL	WBR	SEL	SER	NEL	NER
Lane Configurations						
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	0	0	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	0	0	0
Right Turn on Red	Yes	Yes		Yes		Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30		30		40	
Link Distance (ft)	8307		3268		1785	
Travel Time (s)	188.8		74.3		30.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	12		0		0	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Turn Type						
Protected Phases	8					
Permitted Phases						
Minimum Split (s)	22.0					
Total Split (s)	22.0					
Total Split (%)	100.0%					
Maximum Green (s)	16.0					
Yellow Time (s)	4.0					
All-Red Time (s)	2.0					
Lost Time Adjust (s)	0.0					
Total Lost Time (s)	6.0					
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0					
Flash Dont Walk (s)	11.0					
Pedestrian Calls (#/hr)	0					
Act Effect Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						

2020 Left-Turn Prohibition  
 26: Northpark Dr. & Mills Branch

PM Peak Hour



Lane Group	WBL	WBR	SEL	SER	NEL	NER
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LOS						
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Approach Delay						
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Approach LOS						
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**Intersection Summary**

Area Type:	Other
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Cycle Length:	22
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Actuated Cycle Length:	22
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Offset:	0 (0%), Referenced to phase 2: and 6:, Start of Green
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Natural Cycle:	40
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Control Type:	Pretimed
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Maximum v/c Ratio:	0.00
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Intersection Signal Delay:	0.0	Intersection LOS:	A
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Intersection Capacity Utilization:	0.0%	ICU Level of Service:	A
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Analysis Period (min):	15
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Splits and Phases: 26: Northpark Dr. & Mills Branch



2020 Left-Turn Prohibition  
 28: Kingwood Dr./Kingwood Dr. & Mills Branch

PM Peak Hour



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations				↑↑		
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	3539	0	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	3539	0	0
Right Turn on Red	Yes	Yes	Yes			Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30			40	30	
Link Distance (ft)	71			1387	344	
Travel Time (s)	1.6			23.6	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type						
Protected Phases				2		
Permitted Phases						
Minimum Split (s)				22.0		
Total Split (s)				22.0		
Total Split (%)				100.0%		
Maximum Green (s)				16.0		
Yellow Time (s)				4.0		
All-Red Time (s)				2.0		
Lost Time Adjust (s)				0.0		
Total Lost Time (s)				6.0		
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)				5.0		
Flash Dont Walk (s)				11.0		
Pedestrian Calls (#/hr)				0		
Act Effect Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						

2020 Left-Turn Prohibition  
 28: Kingwood Dr./Kingwood Dr. & Mills Branch

PM Peak Hour



Lane Group	SEL	SER	NEL	NET	SWT	SWR
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LOS						
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Approach Delay						
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Approach LOS						
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Intersection Summary

Area Type:	Other
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Cycle Length:	22
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Actuated Cycle Length:	22
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Offset:	0 (0%), Referenced to phase 2:NET and 6:, Start of Green
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Natural Cycle:	40
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Control Type:	Pretimed
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Maximum v/c Ratio:	0.00
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Intersection Signal Delay:	0.0	Intersection LOS:	A
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Intersection Capacity Utilization:	0.0%	ICU Level of Service:	A
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Analysis Period (min)	15
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Splits and Phases: 28: Kingwood Dr./Kingwood Dr. & Mills Branch



2020 Left-Turn Prohibition  
29: Northpark Dr. & Rock Springs

PM Peak Hour



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑		↖	↑↑					↖	↑↑	
Volume (vph)	0	28	55	39	84	0	0	0	0	16	502	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.898										0.994
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3178	0	1770	3539	0	0	0	0	1770	3518	0
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	3178	0	1770	3539	0	0	0	0	1770	3518	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		77										4
Link Speed (mph)		30			30			40				40
Link Distance (ft)		292			173			576				1785
Travel Time (s)		6.6			3.9			9.8				30.4
Peak Hour Factor	0.92	0.88	0.81	0.61	0.75	0.92	0.92	0.92	0.92	0.80	0.88	0.67
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	36	77	72	127	0	0	0	0	23	645	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	113	0	72	127	0	0	0	0	23	672	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1		2
Detector Template		Thru		Left	Thru					Left		Thru
Leading Detector (ft)		100		20	100					20		100
Trailing Detector (ft)		0		0	0					0		0
Detector 1 Position(ft)		0		0	0					0		0
Detector 1 Size(ft)		6		20	6					20		6
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0		0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0		0.0	0.0					0.0		0.0
Detector 2 Position(ft)		94			94							94
Detector 2 Size(ft)		6			6							6
Detector 2 Type		Cl+Ex			Cl+Ex							Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							0.0
Turn Type		NA		Prot	NA					Prot		NA
Protected Phases		4		15 8	8					1		6
Permitted Phases												
Detector Phase		4		15 8	8					1		6
Switch Phase												
Minimum Initial (s)		5.0			5.0					5.0		4.0

2020 Left-Turn Prohibition  
 29: Northpark Dr. & Rock Springs

PM Peak Hour

Lane Group	ø2	ø15
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	2	15
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	5.0

2020 Left-Turn Prohibition  
29: Northpark Dr. & Rock Springs

PM Peak Hour

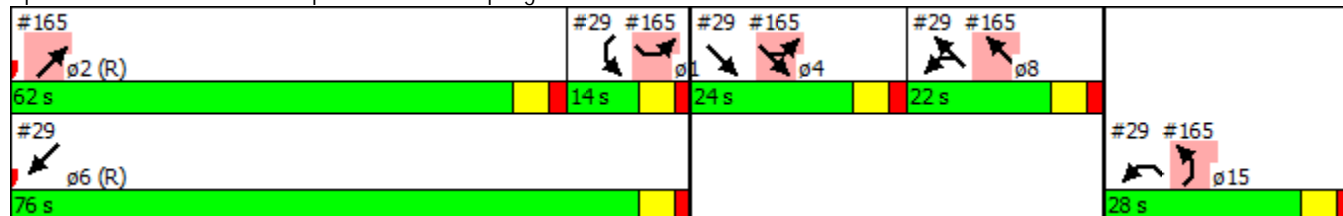


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Minimum Split (s)		22.0			21.0					11.0	18.0	
Total Split (s)		24.0			22.0					14.0	76.0	
Total Split (%)		16.0%			14.7%					9.3%	50.7%	
Maximum Green (s)		18.0			16.0					8.0	70.0	
Yellow Time (s)		4.0			4.0					4.0	4.0	
All-Red Time (s)		2.0			2.0					2.0	2.0	
Lost Time Adjust (s)		0.0			0.0					0.0	0.0	
Total Lost Time (s)		6.0			6.0					6.0	6.0	
Lead/Lag		Lead			Lag					Lag		
Lead-Lag Optimize?		Yes			Yes					Yes		
Vehicle Extension (s)		3.0			3.0					3.0	3.0	
Recall Mode		None			Max					None	C-Max	
Walk Time (s)		5.0			5.0						5.0	
Flash Dont Walk (s)		11.0			10.0						7.0	
Pedestrian Calls (#/hr)		0			0						0	
Act Effect Green (s)		7.6		48.8	26.4					7.2	75.6	
Actuated g/C Ratio		0.05		0.33	0.18					0.05	0.50	
v/c Ratio		0.48		0.13	0.20					0.27	0.38	
Control Delay		32.4		4.6	75.8					76.7	24.0	
Queue Delay		0.0		0.9	2.7					0.0	0.0	
Total Delay		32.4		5.5	78.5					76.7	24.0	
LOS		C		A	E					E	C	
Approach Delay		32.4			52.1						25.7	
Approach LOS		C			D						C	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	45 (30%), Referenced to phase 2:NET and 6:, Start of Green
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	31.7
Intersection LOS:	C
Intersection Capacity Utilization:	46.7%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 29: Northpark Dr. & Rock Springs



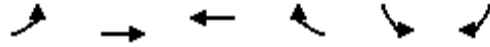
Lane Group	ø2	ø15
Minimum Split (s)	18.0	11.0
Total Split (s)	62.0	28.0
Total Split (%)	41%	19%
Maximum Green (s)	56.0	22.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	C-Max	None
Walk Time (s)	5.0	
Flash Dont Walk (s)	7.0	
Pedestrian Calls (#/hr)	0	
Act Effect Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
<b>Intersection Summary</b>		





2020 Left-Turn Prohibition  
34: Kingwood Dr. & Woodland Grove

PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø3	ø4	ø6	ø7	ø8	
Detector Phase	5	2	3 6		4 7							
Switch Phase												
Minimum Initial (s)	3.0	10.0					1.0	5.0	2.0	1.0	5.0	
Minimum Split (s)	9.0	29.5					14.5	11.0	22.0	8.0	21.0	
Total Split (s)	32.0	118.0					22.0	11.0	86.0	11.0	22.0	
Total Split (%)	21.2%	78.1%					15%	7%	57%	7%	15%	
Maximum Green (s)	26.0	112.0					16.0	5.0	80.0	5.0	16.0	
Yellow Time (s)	4.0	4.0					4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0					2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0										
Total Lost Time (s)	6.0	6.0										
Lead/Lag	Lead						Lag					
Lead-Lag Optimize?	Yes						Yes					
Vehicle Extension (s)	0.2	0.2					0.2	0.2	0.2	0.2	0.2	
Recall Mode	None	C-Max					Max	None	C-Max	None	Max	
Walk Time (s)		5.0							5.0			
Flash Dont Walk (s)		11.0							11.0			
Pedestrian Calls (#/hr)		0							0			
Act Effect Green (s)	21.8	112.0	106.2		5.0							
Actuated g/C Ratio	0.14	0.74	0.70		0.03							
v/c Ratio	0.90	1.14	0.76		0.84							
Control Delay	98.7	91.7	2.2		60.3							
Queue Delay	0.0	0.1	0.8		70.5							
Total Delay	98.7	91.8	3.1		130.8							
LOS	F	F	A		F							
Approach Delay		92.3	3.1		130.8							
Approach LOS		F	A		F							

Intersection Summary

Area Type: Other  
 Cycle Length: 151  
 Actuated Cycle Length: 151  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.14  
 Intersection Signal Delay: 61.8  
 Intersection LOS: E  
 Intersection Capacity Utilization 91.4%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 34: Kingwood Dr. & Woodland Grove



2020 Left-Turn Prohibition  
35: Russel Palmer & Northpark Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓						↑	↗		↖	
Volume (vph)	0	1861	69	0	0	0	0	158	106	37	102	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994							0.850			
Flt Protected												0.987
Satd. Flow (prot)	0	3518	0	0	0	0	0	1863	1583	0	1839	0
Flt Permitted												0.465
Satd. Flow (perm)	0	3518	0	0	0	0	0	1863	1583	0	866	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5							127			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		122			2720			1145			80	
Travel Time (s)		1.8			41.2			26.0			1.8	
Peak Hour Factor	0.92	0.99	0.82	0.92	0.92	0.92	0.92	0.78	0.83	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	2124	95	0	0	0	0	229	144	45	125	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2219	0	0	0	0	0	229	144	0	170	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2						2	1	1	2	
Detector Template		Thru						Thru	Right	Left	Thru	
Leading Detector (ft)		100						100	20	20	100	
Trailing Detector (ft)		0						0	0	0	0	
Detector 1 Position(ft)		0						0	0	0	0	
Detector 1 Size(ft)		6						6	20	20	6	
Detector 1 Type		Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)		0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)		0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type		NA						NA	Perm	Perm	NA	
Protected Phases		2						8			4	
Permitted Phases									8	4		

2020 Left-Turn Prohibition  
 35: Russel Palmer & Northpark Dr.

PM Peak Hour

Lane Group	ø1	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	1	6
Permitted Phases		

2020 Left-Turn Prohibition  
35: Russel Palmer & Northpark Dr.

PM Peak Hour

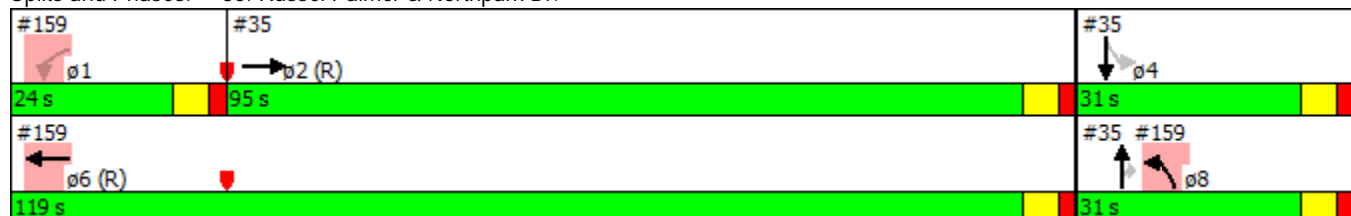


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2						8	8	4	4	
Switch Phase												
Minimum Initial (s)		15.0						5.0	5.0	5.0	5.0	
Minimum Split (s)		21.3						11.6	11.6	11.3	11.3	
Total Split (s)		95.0						31.0	31.0	31.0	31.0	
Total Split (%)		63.3%						20.7%	20.7%	20.7%	20.7%	
Maximum Green (s)		89.0						25.0	25.0	25.0	25.0	
Yellow Time (s)		4.0						4.0	4.0	4.0	4.0	
All-Red Time (s)		2.0						2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	
Total Lost Time (s)		6.0						6.0	6.0		6.0	
Lead/Lag		Lag										
Lead-Lag Optimize?		Yes										
Vehicle Extension (s)		3.0						3.0	3.0	3.0	3.0	
Recall Mode		C-Max						Max	Max	None	None	
Act Effect Green (s)		89.2						25.0	25.0		25.0	
Actuated g/C Ratio		0.59						0.17	0.17		0.17	
v/c Ratio		1.06						0.74	0.39		1.18	
Control Delay		67.7						74.5	15.0		197.5	
Queue Delay		0.0						0.0	0.0		0.0	
Total Delay		67.7						74.5	15.0		197.5	
LOS		E						E	B		F	
Approach Delay		67.7						51.6			197.5	
Approach LOS		E						D			F	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	25 (17%), Referenced to phase 2:EBT and 6:, Start of Green
Natural Cycle:	150
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.18
Intersection Signal Delay:	73.5
Intersection LOS:	E
Intersection Capacity Utilization:	93.4%
ICU Level of Service:	F
Analysis Period (min):	15

Splits and Phases: 35: Russel Palmer & Northpark Dr.



2020 Left-Turn Prohibition  
35: Russel Palmer & Northpark Dr.

PM Peak Hour

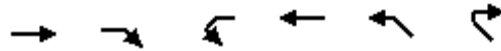
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Lane Group	ø1	ø6
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	15.0
Minimum Split (s)	11.3	21.3
Total Split (s)	24.0	119.0
Total Split (%)	16%	79%
Maximum Green (s)	18.0	113.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	C-Max
Act Effect Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

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2020 Left-Turn Prohibition  
36: Northpark Dr.

PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑		
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	3539	0	0	3539	0	0
Flt Permitted						
Satd. Flow (perm)	3539	0	0	3539	0	0
Link Speed (mph)	45			40	45	
Link Distance (ft)	1638			2842	2834	
Travel Time (s)	24.8			48.4	42.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	51.5%
Analysis Period (min)	15
	ICU Level of Service A

2020 Left-Turn Prohibition  
43: Sorters Rd & US 59 SBFR

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↔	↑↑						↔↑	↔
Volume (vph)	0	21	110	291	252	0	0	0	0	103	19	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	200		0	0		0	0		150
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.879										0.850
Flt Protected				0.950							0.961	
Satd. Flow (prot)	0	4470	0	1770	3539	0	0	0	0	0	3401	1583
Flt Permitted				0.642							0.961	
Satd. Flow (perm)	0	4470	0	1196	3539	0	0	0	0	0	3401	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		135										74
Link Speed (mph)		35			35			55				55
Link Distance (ft)		893			863			983				6715
Travel Time (s)		17.4			16.8			12.2				83.2
Peak Hour Factor	0.92	0.75	0.92	0.78	0.86	0.92	0.92	0.92	0.92	0.74	0.59	0.80
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	32	135	422	331	0	0	0	0	157	36	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	167	0	422	331	0	0	0	0	0	193	49
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Minimum Split (s)		22.0		22.0	22.0					22.0	22.0	22.0
Total Split (s)		22.0		22.0	22.0					22.0	22.0	22.0
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	50.0%
Maximum Green (s)		16.0		16.0	16.0					16.0	16.0	16.0
Yellow Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
All-Red Time (s)		2.0		2.0	2.0					2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		6.0		6.0	6.0						6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)		5.0		5.0	5.0					5.0	5.0	5.0
Flash Dont Walk (s)		11.0		11.0	11.0					11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0					0	0	0
Act Effect Green (s)		16.0		16.0	16.0						16.0	16.0
Actuated g/C Ratio		0.36		0.36	0.36						0.36	0.36
v/c Ratio		0.10		0.97	0.26						0.16	0.08



2020 Left-Turn Prohibition  
43: Sorters Rd & US 59 SBFR

PM Peak Hour

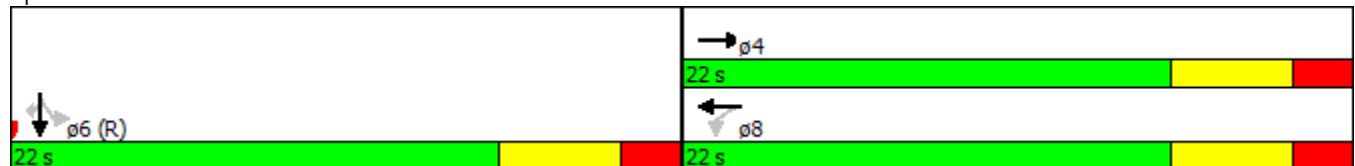


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		3.5		53.6	6.6						4.3	0.6
Queue Delay		0.0		0.0	0.0						0.0	0.0
Total Delay		3.5		53.6	6.6						4.3	0.6
LOS		A		D	A						A	A
Approach Delay		3.5			33.0						3.5	
Approach LOS		A			C						A	

Intersection Summary

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.97
Intersection Signal Delay:	22.6
Intersection LOS:	C
Intersection Capacity Utilization	43.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 43: Sorters Rd & US 59 SBFR



2020 Left-Turn Prohibition  
45: Loop 494 & Sorters Rd

PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	63	55	291	613	251	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	150	180			225
Storage Lanes	2	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	0.97	0.88	0.97	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	3433	2787	3433	3539	3539	1583
Flt Permitted	0.950		0.537			
Satd. Flow (perm)	3433	2787	1941	3539	3539	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		82				133
Link Speed (mph)	35			45	45	
Link Distance (ft)	863			804	572	
Travel Time (s)	16.8			12.2	8.7	
Peak Hour Factor	0.75	0.76	0.89	0.92	0.79	0.75
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	95	82	369	753	359	133
Shared Lane Traffic (%)						
Lane Group Flow (vph)	95	82	369	753	359	133
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	36			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	NA	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	16.0	16.0	16.0	16.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effect Green (s)	16.0	16.0	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.36	0.36
v/c Ratio	0.08	0.08	0.52	0.59	0.28	0.20

2020 Left-Turn Prohibition  
45: Loop 494 & Sorters Rd

PM Peak Hour

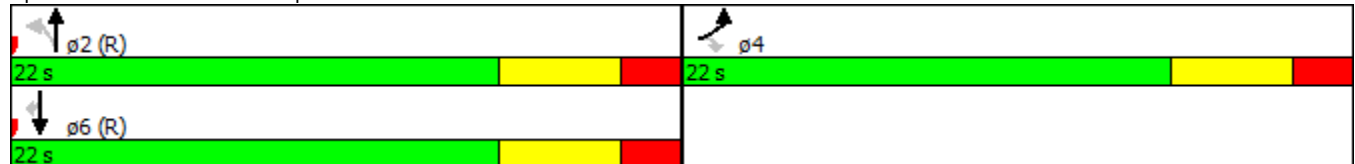


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Control Delay	5.4	2.6	14.3	13.6	10.7	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	2.6	14.3	13.6	10.7	3.4
LOS	A	A	B	B	B	A
Approach Delay	4.1		13.8		8.7	
Approach LOS	A		B		A	

Intersection Summary

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.59
Intersection Signal Delay:	11.5
Intersection LOS:	B
Intersection Capacity Utilization	35.6%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 45: Loop 494 & Sorters Rd



2020 Left-Turn Prohibition  
49: Hamblen & Laurel Springs

PM Peak Hour



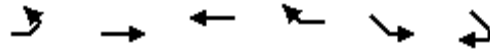
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	185	840	174	12	6	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.987		0.877	
Flt Protected		0.990			0.996	
Satd. Flow (prot)	0	1844	1839	0	1627	0
Flt Permitted		0.990			0.996	
Satd. Flow (perm)	0	1844	1839	0	1627	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1799	1596		734	
Travel Time (s)		35.0	31.1		16.7	
Peak Hour Factor	0.89	0.99	0.75	0.50	0.75	0.76
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	235	959	262	27	9	91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1194	289	0	100	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		40	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	87.3%
Analysis Period (min)	15
	ICU Level of Service E

2020 Left-Turn Prohibition  
53: Kingwood Dr.

PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑			
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	3539	3539	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	3539	3539	0	0	0
Link Speed (mph)		40	40		40	
Link Distance (ft)		736	252		743	
Travel Time (s)		12.5	4.3		12.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		40	40		40	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0%
Analysis Period (min)	15
	ICU Level of Service A

2020 Left-Turn Prohibition  
54: Woodland Hills & Hamblen

PM Peak Hour

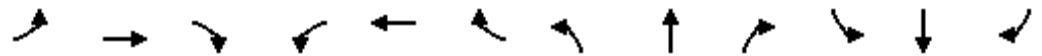


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	1863	0	0	0	1863	0	0	1863	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	1863	0	0	0	1863	0	0	1863	0	0	1863	0
Link Speed (mph)	35			35			35			35		
Link Distance (ft)	6657			795			912			3265		
Travel Time (s)	129.7			15.5			17.8			63.6		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Shared Lane Traffic (%)	0%											
Lane Group Flow (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	12			12			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop			Stop			Stop			Stop		

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0%
Analysis Period (min)	15
	ICU Level of Service A

2020 Left-Turn Prohibition  
57: Redbud & Hamblen

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	15	43	10	1	17	0	93	53	1	3	32	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.968						0.996			0.964	
Flt Protected		0.988			0.991			0.969			0.995	
Satd. Flow (prot)	0	1781	0	0	1846	0	0	1798	0	0	1787	0
Flt Permitted		0.988			0.991			0.969			0.995	
Satd. Flow (perm)	0	1781	0	0	1846	0	0	1798	0	0	1787	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		753			6657			439			363	
Travel Time (s)		14.7			129.7			10.0			8.3	
Peak Hour Factor	0.63	0.83	0.42	0.25	0.85	0.25	0.86	0.95	0.25	0.38	0.67	0.65
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	27	59	27	5	23	0	122	63	5	9	54	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	113	0	0	28	0	0	190	0	0	86	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	32.0%
Analysis Period (min)	15
	ICU Level of Service A

2020 Left-Turn Prohibition  
60: Forest Cove & Hamblen

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	520	140	51	1	49	2	16	16	3	3	27	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987			0.987			0.981			0.911	
Flt Protected		0.966			0.997			0.982			0.997	
Satd. Flow (prot)	0	1776	0	0	1833	0	0	1794	0	0	1692	0
Flt Permitted		0.966			0.997			0.982			0.997	
Satd. Flow (perm)	0	1776	0	0	1833	0	0	1794	0	0	1692	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1966			1019			472			603	
Travel Time (s)		38.3			19.9			10.7			13.7	
Peak Hour Factor	0.90	0.90	0.67	0.25	0.68	0.25	0.80	0.57	0.38	0.38	0.61	0.75
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	653	176	86	5	81	9	23	32	9	9	50	113
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	915	0	0	95	0	0	64	0	0	172	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	66.5%
Analysis Period (min)	15
	ICU Level of Service C



2020 Left-Turn Prohibition  
64: Woodland Hills & Kingwood Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	379	1506	363	0	1341	144	35	210	302	126	221	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	150		0	150		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.985				0.850			0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1770	3437	0	1863	3486	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1770	3437	0	1863	3486	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37			9				153			319
Link Speed (mph)		40			40			35				35
Link Distance (ft)		275			1473			652				2207
Travel Time (s)		4.7			25.1			12.7				43.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%
Adj. Flow (vph)	482	1915	462	0	1705	183	45	267	384	160	281	362
Shared Lane Traffic (%)												
Lane Group Flow (vph)	482	2377	0	0	1888	0	45	267	384	160	281	362
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		70			75			20				30
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Prot	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5 15	2			6		3	8		7		4
Permitted Phases				6					8			4

2020 Left-Turn Prohibition  
 64: Woodland Hills & Kingwood Dr.

PM Peak Hour

Lane Group	ø5	ø15
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	5	15
Permitted Phases		

2020 Left-Turn Prohibition  
64: Woodland Hills & Kingwood Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5 15	2		6	6		3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)		10.0		10.0	10.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)		22.0		22.0	22.0		11.0	22.0	22.0	11.0	22.0	22.0
Total Split (s)		99.0		70.0	70.0		11.0	24.0	24.0	17.0	30.0	30.0
Total Split (%)		66.0%		46.7%	46.7%		7.3%	16.0%	16.0%	11.3%	20.0%	20.0%
Maximum Green (s)		93.0		64.0	64.0		5.0	18.0	18.0	11.0	24.0	24.0
Yellow Time (s)		4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag				Lag	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode		C-Min		C-Min	C-Min		None	None	None	None	None	None
Walk Time (s)		5.0		5.0	5.0			5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0		11.0	11.0			11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0		0	0			0	0		0	0
Act Effct Green (s)	33.0	93.0			64.0		5.0	18.0	18.0	11.0	26.2	26.2
Actuated g/C Ratio	0.22	0.62			0.43		0.03	0.12	0.12	0.07	0.17	0.17
v/c Ratio	1.24	1.11			1.27		0.76	1.20	1.19	1.24	0.86	0.67
Control Delay	175.0	84.2			161.6		132.5	177.7	142.6	202.4	92.2	28.3
Queue Delay	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	175.0	84.2			161.6		132.5	177.7	142.6	202.4	92.2	28.3
LOS	F	F			F		F	F	F	F	F	C
Approach Delay		99.5			161.6			155.4			85.3	
Approach LOS		F			F			F			F	

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.27  
 Intersection Signal Delay: 122.7  
 Intersection LOS: F  
 Intersection Capacity Utilization 114.4%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 64: Woodland Hills & Kingwood Dr.



Lane Group	ø5	ø15
Detector Phase		
Switch Phase		
Minimum Initial (s)	7.0	4.0
Minimum Split (s)	13.0	10.0
Total Split (s)	29.0	10.0
Total Split (%)	19%	7%
Maximum Green (s)	23.0	4.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

2020 Left-Turn Prohibition  
69: Kingwood Dr. & High Valley

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	24	0	0	102	42	7	285	129	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00
Frt					0.956			0.954				
Flt Protected	0.950	0.998						0.999				
Satd. Flow (prot)	1681	1766	0	0	3383	0	0	3373	0	0	0	0
Flt Permitted	0.950	0.998						0.999				
Satd. Flow (perm)	1681	1766	0	0	3383	0	0	3373	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					35			76				
Link Speed (mph)		30			30			40				40
Link Distance (ft)		140			765			1296				1387
Travel Time (s)		3.2			17.4			22.1				23.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	10	29	0	0	125	52	9	350	158	0	0	0
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	9	30	0	0	177	0	0	517	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA			NA		Prot	NA				
Protected Phases	1 4	4			8		15	2				
Permitted Phases												
Minimum Split (s)		11.0			19.0		11.0	20.0				
Total Split (s)		14.0			25.0		18.0	78.0				
Total Split (%)		9.3%			16.7%		12.0%	52.0%				
Maximum Green (s)		8.0			19.0		12.0	72.0				
Yellow Time (s)		4.0			4.0		4.0	4.0				
All-Red Time (s)		2.0			2.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		6.0			6.0			6.0				
Lead/Lag		Lead			Lag			Lead				
Lead-Lag Optimize?		Yes			Yes			Yes				
Walk Time (s)					6.0			4.0				
Flash Dont Walk (s)					7.0			10.0				
Pedestrian Calls (#/hr)					0			0				
Act Effct Green (s)	23.0	23.0			19.0			84.0				
Actuated g/C Ratio	0.15	0.15			0.13			0.56				
v/c Ratio	0.04	0.11			0.39			0.49				
Control Delay	42.9	43.6			50.7			12.5				
Queue Delay	1.9	6.1			0.0			0.0				
Total Delay	44.8	49.8			50.7			12.5				

2020 Left-Turn Prohibition  
69: Kingwood Dr. & High Valley

PM Peak Hour

Lane Group	ø1	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	1	6
Permitted Phases		
Minimum Split (s)	11.0	10.0
Total Split (s)	15.0	93.0
Total Split (%)	10%	62%
Maximum Green (s)	9.0	87.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		

2020 Left-Turn Prohibition  
69: Kingwood Dr. & High Valley

PM Peak Hour

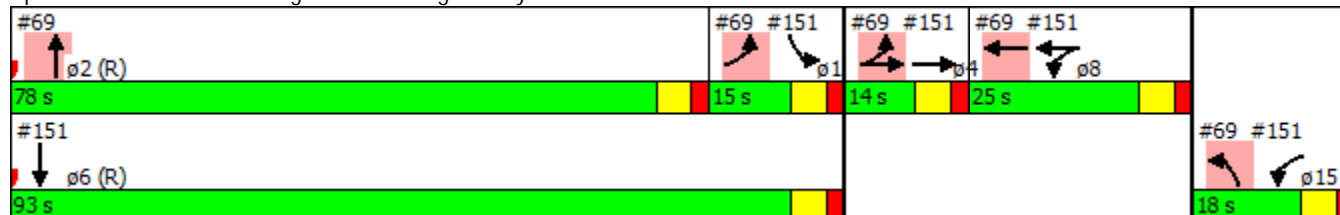


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	D	D			D			B				
Approach Delay		48.6			50.7			12.5				
Approach LOS		D			D			B				

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	48 (32%), Referenced to phase 2:NBT and 6:, Start of Green
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	0.49
Intersection Signal Delay:	23.7
Intersection LOS:	C
Intersection Capacity Utilization	28.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 69: Kingwood Dr. & High Valley



Lane Group	ø1	ø6
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

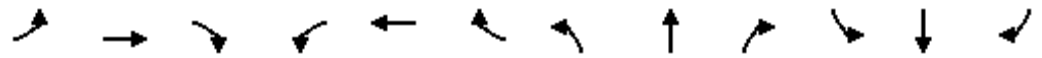
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2020 Left-Turn Prohibition

PM Peak Hour

73: Hidden Pines Dr./Woodridge/Hidden Pines & Northpark Dr.



















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑						↑	↗	↘	↑	
Volume (vph)	13	1769	186	0	0	0	0	49	59	29	79	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986							0.850			
Flt Protected										0.950		
Satd. Flow (prot)	0	3490	0	0	0	0	0	1863	1583	1770	1863	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	3490	0	0	0	0	0	1863	1583	1770	1863	0
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		2720			1035			639			133	
Travel Time (s)		41.2			15.7			14.5			3.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	16	2173	228	0	0	0	0	60	72	36	97	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2417	0	0	0	0	0	60	72	36	97	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			25	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	118.8%
ICU Level of Service	H
Analysis Period (min)	15

2020 Left-Turn Prohibition  
74: Kingwood Dr. & Willow Terrace

PM Peak Hour

													ø1
Lane Group	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER		
Lane Configurations													
Volume (vph)	0	0	2	51	0	0	306	37	80	494	483		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Storage Length (ft)	0	0	0		0	0		0		150	0		
Storage Lanes	0	0	0		0	0		0		2	0		
Taper Length (ft)	25		25			25				25			
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95	1.00	0.97	0.95		
Frt							0.979			0.928			
Flt Protected				0.997					0.950	0.975			
Satd. Flow (prot)	0	0	0	3529	0	0	3465	0	1770	3270	0		
Flt Permitted				0.997					0.950	0.975			
Satd. Flow (perm)	0	0	0	3529	0	0	3465	0	1770	3270	0		
Right Turn on Red					Yes			Yes			Yes		
Satd. Flow (RTOR)							10			193			
Link Speed (mph)	40			30			30			40			
Link Distance (ft)	525			105			533			1469			
Travel Time (s)	8.9			2.4			12.1			25.0			
Peak Hour Factor	0.92	0.92	0.50	0.75	0.92	0.92	0.87	0.66	0.74	0.92	0.97		
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%		
Adj. Flow (vph)	0	0	5	77	0	0	397	63	122	607	563		
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	82	0	0	460	0	122	1170	0		
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right		
Median Width(ft)	0			0			0			36			
Link Offset(ft)	0			0			0			0			
Crosswalk Width(ft)	16			16			16			16			
Two way Left Turn Lane													
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)	15	9	15		9	15		9	15	15	9		
Turn Type			Prot	NA			NA		Prot	NA			
Protected Phases			1 4	4			8		15	2			1
Permitted Phases													
Minimum Split (s)				11.0			19.0		11.0	20.0			11.0
Total Split (s)				12.0			31.0		23.0	69.0			15.0
Total Split (%)				8.0%			20.7%		15.3%	46.0%			10%
Maximum Green (s)				6.0			25.0		17.0	63.0			9.0
Yellow Time (s)				4.0			4.0		4.0	4.0			4.0
All-Red Time (s)				2.0			2.0		2.0	2.0			2.0
Lost Time Adjust (s)				0.0			0.0		0.0	0.0			0.0
Total Lost Time (s)				6.0			6.0		6.0	6.0			6.0
Lead/Lag				Lead			Lag		Lead				Lag
Lead-Lag Optimize?				Yes			Yes		Yes				Yes
Walk Time (s)							6.0			4.0			
Flash Dont Walk (s)							7.0			10.0			
Pedestrian Calls (#/hr)							0			0			
Act Effect Green (s)				21.0			25.0		17.0	63.0			
Actuated g/C Ratio				0.14			0.17		0.11	0.42			
v/c Ratio				0.17			0.79		0.61	0.79			

Lane Group	ø6
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Growth Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Minimum Split (s)	10.0
Total Split (s)	84.0
Total Split (%)	56%
Maximum Green (s)	78.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	

2020 Left-Turn Prohibition  
74: Kingwood Dr. & Willow Terrace

PM Peak Hour

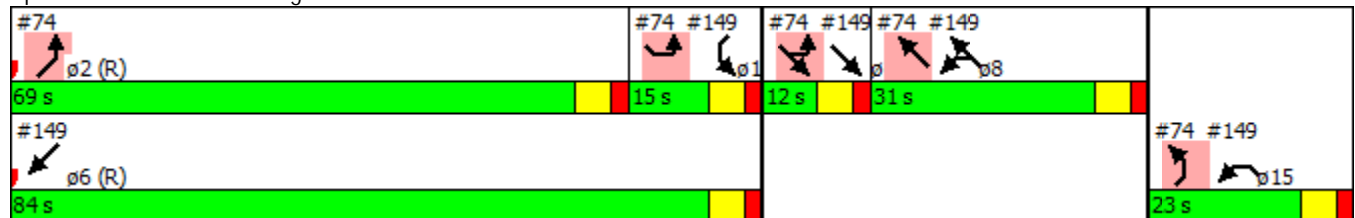


Lane Group	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER	ø1
Control Delay				18.9			69.2		105.3	8.1		
Queue Delay				3.1			0.0		0.0	0.0		
Total Delay				22.1			69.2		105.3	8.1		
LOS				C			E		F	A		
Approach Delay				22.1			69.2			17.3		
Approach LOS				C			E			B		

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	48 (32%), Referenced to phase 2:NEL and 6:, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	30.5
Intersection LOS:	C
Intersection Capacity Utilization	54.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 74: Kingwood Dr. & Willow Terrace



Lane Group	ø6
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

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2020 Left-Turn Prohibition  
77: Timber Shade Dr. & Kingwood Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	1074	48	0	0	0	0	33	0	9	3	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Fr't		0.992										
Flt Protected	0.950										0.973	
Satd. Flow (prot)	1770	3511	0	0	0	0	0	3539	0	0	3444	0
Flt Permitted	0.950										0.973	
Satd. Flow (perm)	1770	3511	0	0	0	0	0	3539	0	0	3444	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5										
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		826			1617			741			136	
Travel Time (s)		14.1			27.6			16.8			3.1	
Peak Hour Factor	0.90	0.96	0.80	0.92	0.92	0.92	0.92	0.69	0.25	0.56	0.25	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	144	1264	68	0	0	0	0	54	0	18	14	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	144	1332	0	0	0	0	0	54	0	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA						NA		Prot	NA	
Protected Phases	15	2						8		14	4	
Permitted Phases												
Minimum Split (s)	11.0	20.0						19.0			11.0	
Total Split (s)	27.0	80.0						19.0			13.0	
Total Split (%)	18.0%	53.3%						12.7%			8.7%	
Maximum Green (s)	21.0	74.0						13.0			7.0	
Yellow Time (s)	4.0	4.0						4.0			4.0	
All-Red Time (s)	2.0	2.0						2.0			2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	6.0	6.0						6.0			6.0	
Lead/Lag		Lead						Lag			Lead	
Lead-Lag Optimize?		Yes						Yes			Yes	
Walk Time (s)		4.0						6.0				
Flash Dont Walk (s)		10.0						7.0				
Pedestrian Calls (#/hr)		0						0				
Act Effct Green (s)	21.0	74.0						13.0			18.0	
Actuated g/C Ratio	0.14	0.49						0.09			0.12	
v/c Ratio	0.58	0.77						0.18			0.08	

2020 Left-Turn Prohibition  
 77: Timber Shade Dr. & Kingwood Dr.

PM Peak Hour

Lane Group	ø1	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	1	6
Permitted Phases		
Minimum Split (s)	11.0	10.0
Total Split (s)	11.0	91.0
Total Split (%)	7%	61%
Maximum Green (s)	5.0	85.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		

2020 Left-Turn Prohibition  
77: Timber Shade Dr. & Kingwood Dr.

PM Peak Hour

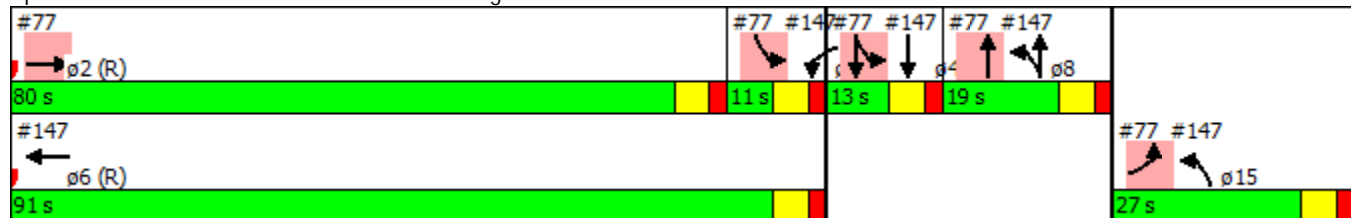


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	70.8	34.6						65.1			41.9	
Queue Delay	0.0	0.0						0.0			1.6	
Total Delay	70.8	34.6						65.1			43.5	
LOS	E	C						E			D	
Approach Delay		38.1						65.1			43.5	
Approach LOS		D						E			D	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	0 (0%), Referenced to phase 2:EBT and 6:, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	39.2
Intersection LOS:	D
Intersection Capacity Utilization	52.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 77: Timber Shade Dr. & Kingwood Dr.





Lane Group	ø1	ø6
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

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2020 Left-Turn Prohibition  
80: Kingwood Dr.

PM Peak Hour












Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations			↑↑			↑↑
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	3539	0	0	3539
Flt Permitted						
Satd. Flow (perm)	0	0	3539	0	0	3539
Link Speed (mph)	40		40			40
Link Distance (ft)	826		596			833
Travel Time (s)	14.1		10.2			14.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	80		80			80
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Free		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0%
Analysis Period (min)	15
	ICU Level of Service A

2020 Left-Turn Prohibition  
81: US 59 SBFR

PM Peak Hour

							
Lane Group	NBT	NBR	SBU	SBL	SBT	NWL	NWR
Lane Configurations							
Volume (vph)	0	0	188	0	549	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.81	1.00	1.00
Frt							
Flt Protected			0.950				
Satd. Flow (prot)	0	0	1770	0	7544	0	0
Flt Permitted			0.950				
Satd. Flow (perm)	0	0	1770	0	7544	0	0
Link Speed (mph)	55				55	30	
Link Distance (ft)	304				1812	283	
Travel Time (s)	3.8				22.5	6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	231	0	674	0	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	231	0	674	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Left	Left	Right
Median Width(ft)	12				12	0	
Link Offset(ft)	0				0	0	
Crosswalk Width(ft)	16				16	16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	9	15		15	9
Sign Control	Stop				Free	Stop	
<b>Intersection Summary</b>							
Area Type:	Other						
Control Type:	Unsignalized						
Intersection Capacity Utilization	35.5%			ICU Level of Service A			
Analysis Period (min)	15						

2020 Left-Turn Prohibition  
83: US 59 NBFR

PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	188	0	0	986	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	5085	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	5085	0	0
Link Speed (mph)	30			55	55	
Link Distance (ft)	283			309	1638	
Travel Time (s)	6.4			3.8	20.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	231	0	0	1211	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	231	0	0	1211	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Yield			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	35.5%
Analysis Period (min)	15
	ICU Level of Service A

2020 Left-Turn Prohibition  
84: US 59 SBFR

PM Peak Hour



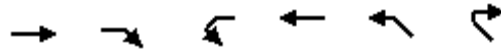
Lane Group	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations							6		7	
Volume (vph)	0	0	0	0	0	0	1079	0	246	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.76	1.00	1.00	1.00
Frt										
Flt Protected									0.950	
Satd. Flow (prot)	0	0	0	0	0	0	8494	0	1770	0
Flt Permitted									0.950	
Satd. Flow (perm)	0	0	0	0	0	0	8494	0	1770	0
Link Speed (mph)	30			55			55		30	
Link Distance (ft)	48			6181			368		362	
Travel Time (s)	1.1			76.6			4.6		8.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0	1325	0	302	0
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	0	0	0	0	0	1325	0	302	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right
Median Width(ft)	0			0			0		12	
Link Offset(ft)	0			0			0		0	
Crosswalk Width(ft)	16			16			16		16	
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9	15		9	15	9
Sign Control	Stop			Stop			Free		Yield	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	33.8%
Analysis Period (min)	15
	ICU Level of Service A

2020 Left-Turn Prohibition  
87: Kingwood Dr.

PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↑↑		↑↑		
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.88	1.00	0.95	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	3278	0	3539	0	0
Flt Permitted						
Satd. Flow (perm)	0	3278	0	3539	0	0
Link Speed (mph)	40			40	30	
Link Distance (ft)	1473			540	4245	
Travel Time (s)	25.1			9.2	96.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	75			70	70	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0%
Analysis Period (min)	15
	ICU Level of Service A

2020 Left-Turn Prohibition  
88: Kingwood Dr. & Kingwood High School

PM Peak Hour



Lane Group	EBL2	EBL	SEL	SER	SWR	ø6	ø8
Lane Configurations							
Volume (vph)	18	1818	165	0	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900		
Lane Util. Factor	1.00	0.97	0.97	1.00	1.00		
Frt							
Flt Protected	0.950	0.950	0.950				
Satd. Flow (prot)	1770	3433	3433	0	0		
Flt Permitted	0.950	0.950	0.950				
Satd. Flow (perm)	1770	3433	3433	0	0		
Right Turn on Red				Yes			
Satd. Flow (RTOR)							
Link Speed (mph)		30	30		30		
Link Distance (ft)		181	239		922		
Travel Time (s)		4.1	5.4		21.0		
Peak Hour Factor	0.56	0.90	0.79	0.92	0.92		
Growth Factor	113%	113%	113%	113%	113%		
Adj. Flow (vph)	36	2283	236	0	0		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	36	2283	236	0	0		
Enter Blocked Intersection	No	No	No	No	No		
Lane Alignment	Left	Left	Left	Right	Right		
Median Width(ft)		60	24		60		
Link Offset(ft)		0	0		0		
Crosswalk Width(ft)		16	16		16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)	15	15	15	9	9		
Turn Type	Prot	NA	NA				
Protected Phases	15	2	4			6	8
Permitted Phases							
Minimum Split (s)	10.0	10.0	11.0			10.0	11.0
Total Split (s)	12.0	107.0	20.0			107.0	11.0
Total Split (%)	8.0%	71.3%	13.3%			71%	7%
Maximum Green (s)	6.0	101.0	14.0			101.0	5.0
Yellow Time (s)	4.0	4.0	4.0			4.0	4.0
All-Red Time (s)	2.0	2.0	2.0			2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0				
Total Lost Time (s)	6.0	6.0	6.0				
Lead/Lag			Lead				Lag
Lead-Lag Optimize?			Yes				Yes
Act Effect Green (s)	6.0	101.0	14.0				
Actuated g/C Ratio	0.04	0.67	0.09				
v/c Ratio	0.51	0.99	0.74				
Control Delay	78.5	28.1	40.0				
Queue Delay	0.0	0.0	0.0				
Total Delay	78.5	28.1	40.0				
LOS	E	C	D				
Approach Delay		28.8	40.0				
Approach LOS		C	D				

2020 Left-Turn Prohibition  
 88: Kingwood Dr. & Kingwood High School

PM Peak Hour

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	0 (0%), Referenced to phase 2:EBL and 6:, Start of Green
Natural Cycle:	110
Control Type:	Pretimed
Maximum v/c Ratio:	0.99
Intersection Signal Delay:	29.9
Intersection LOS:	C
Intersection Capacity Utilization	124.5%
ICU Level of Service	H
Analysis Period (min)	15

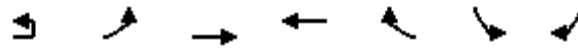
Splits and Phases: 88: Kingwood Dr. & Kingwood High School

#88 ← ρ2 (R) 107 s	#88 #139 ← ρ4 20 s	#139 ← ρ8 11 s	
#139 ← ρ15 ρ6 (R) 107 s			#88 #139 ← ρ12 s



2020 Left-Turn Prohibition  
90: Kingwood Dr.

PM Peak Hour



Lane Group	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↓		↑↑				
Volume (vph)	0	0	1836	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100			0	0	0
Storage Lanes		1			0	0	0
Taper Length (ft)		25				25	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00	1.00
<b>Frt</b>							
Flt Protected							
Satd. Flow (prot)	1863	0	3539	0	0	0	0
Flt Permitted							
Satd. Flow (perm)	1863	0	3539	0	0	0	0
Link Speed (mph)			40	40		40	
Link Distance (ft)			289	181		257	
Travel Time (s)			4.9	3.1		4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	2255	0	0	0	0
<b>Shared Lane Traffic (%)</b>							
Lane Group Flow (vph)	0	0	2255	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Left	Right	Left	Right
Median Width(ft)			12	12		0	
Link Offset(ft)			0	0		0	
Crosswalk Width(ft)			16	16		16	
<b>Two way Left Turn Lane</b>							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15			9	15	9
Sign Control			Free	Free		Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	60.7%
Analysis Period (min)	15
	ICU Level of Service B



2020 Left-Turn Prohibition  
91: Lake Kingwood Trail & Kingwood Dr.

PM Peak Hour

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Lane Group	ø6
Lane Configurations	
Volume (vph)	
Ideal Flow (vphp)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Growth Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	

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2020 Left-Turn Prohibition  
91: Lake Kingwood Trail & Kingwood Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	15	2						8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	4.0						5.0		5.0	5.0	
Minimum Split (s)	11.0	20.0						19.0		11.0	11.0	
Total Split (s)	11.0	95.0						19.0		11.0	11.0	
Total Split (%)	7.3%	63.3%						12.7%		7.3%	7.3%	
Maximum Green (s)	5.0	89.0						13.0		5.0	5.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	6.0	6.0						6.0			6.0	
Lead/Lag								Lag		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Recall Mode	None	C-Max						None		None	None	
Walk Time (s)		4.0						6.0				
Flash Dont Walk (s)		10.0						7.0				
Pedestrian Calls (#/hr)		0						0				
Act Effct Green (s)	5.0	109.6						13.0			5.0	
Actuated g/C Ratio	0.03	0.73						0.09			0.03	
v/c Ratio	0.29	0.84						0.90			1.22dl	
Control Delay	83.2	19.3						88.3			74.5	
Queue Delay	0.0	0.0						0.0			25.6	
Total Delay	83.2	19.3						88.3			100.1	
LOS	F	B						F			F	
Approach Delay		19.8						88.3			100.1	
Approach LOS		B						F			F	

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 30.1  
 Intersection LOS: C  
 Intersection Capacity Utilization 78.8%  
 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: 91: Lake Kingwood Trail & Kingwood Dr.



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Lane Group	ø6
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	10.0
Total Split (s)	109.0
Total Split (%)	73%
Maximum Green (s)	103.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	C-Max
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

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Lane Group	ø6
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Growth Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	6
Permitted Phases	

2020 Left-Turn Prohibition  
96: Chestnut Ridge Dr. & Kingwood Dr.

PM Peak Hour

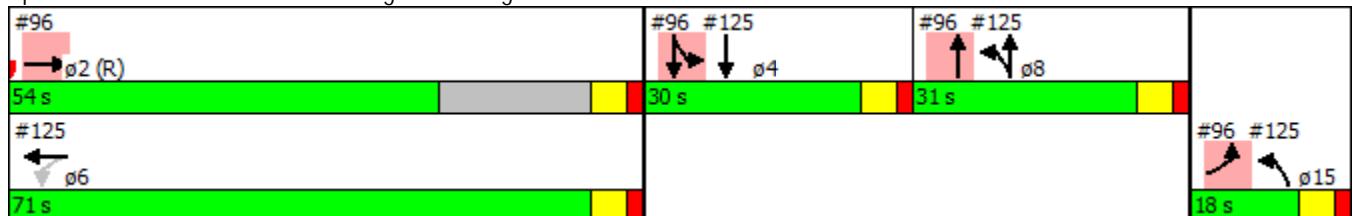


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	15	2						8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	4.0						5.0		5.0	5.0	
Minimum Split (s)	11.0	20.0						19.0		11.0	11.0	
Total Split (s)	18.0	54.0						31.0		30.0	30.0	
Total Split (%)	12.0%	36.0%						20.7%		20.0%	20.0%	
Maximum Green (s)	12.0	48.0						25.0		24.0	24.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	6.0	6.0						6.0			6.0	
Lead/Lag								Lag		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Recall Mode	None	C-Max						None		None	None	
Walk Time (s)		4.0						6.0				
Flash Dont Walk (s)		10.0						7.0				
Pedestrian Calls (#/hr)		0						0				
Act Effct Green (s)	11.8	65.2						25.0			24.0	
Actuated g/C Ratio	0.08	0.43						0.17			0.16	
v/c Ratio	0.85	0.67						1.01			0.96	
Control Delay	112.1	36.1						103.3			74.5	
Queue Delay	4.3	0.0						11.6			0.0	
Total Delay	116.4	36.1						114.9			74.5	
LOS	F	D						F			E	
Approach Delay		44.5						114.9			74.5	
Approach LOS		D						F			E	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	95 (63%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	150
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.10
Intersection Signal Delay:	62.6
Intersection LOS:	E
Intersection Capacity Utilization	71.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 96: Chestnut Ridge Dr. & Kingwood Dr.





2020 Left-Turn Prohibition  
96: Chestnut Ridge Dr. & Kingwood Dr.

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PM Peak Hour

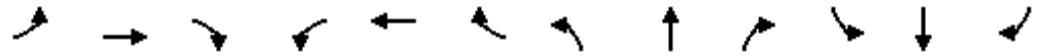
Lane Group	ø6
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	10.0
Total Split (s)	71.0
Total Split (%)	47%
Maximum Green (s)	65.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

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2020 Left-Turn Prohibition

PM Peak Hour

101: Woodridge/Hidden Pines/Woodridge Parkway & Northpark Dr.



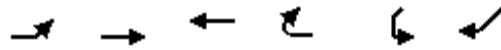
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑		↑	↑			↑	↑
Volume (vph)	0	0	0	68	1205	22	250	18	0	0	30	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.997							0.850
Flt Protected					0.997		0.950					
Satd. Flow (prot)	0	0	0	0	3518	0	1770	1863	0	0	1863	1583
Flt Permitted					0.997		0.950					
Satd. Flow (perm)	0	0	0	0	3518	0	1770	1863	0	0	1863	1583
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		2724			1030			133			593	
Travel Time (s)		41.3			15.6			3.0			13.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	84	1480	27	307	22	0	0	37	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1591	0	307	22	0	0	37	29
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			25			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	118.8%
ICU Level of Service	H
Analysis Period (min)	15

2020 Left-Turn Prohibition  
102: Kingwood Dr.

PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations			↑			↑↑
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	1863	0	0	3278
Flt Permitted						
Satd. Flow (perm)	0	0	1863	0	0	3278
Link Speed (mph)		40	40		40	
Link Distance (ft)		441	257		184	
Travel Time (s)		7.5	4.4		3.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Yield		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	60.7%
Analysis Period (min)	15
	ICU Level of Service B



2020 Left-Turn Prohibition  
 104: US 59 SBFR & Kingwood Dr.

PM Peak Hour

Lane Group	ø1	ø3	ø4	ø5	ø6	ø7	ø8	ø11	ø15	ø16	ø21
Lane Configurations											
Volume (vph)											
Ideal Flow (vphpl)											
Lane Util. Factor											
Frt											
Flt Protected											
Satd. Flow (prot)											
Flt Permitted											
Satd. Flow (perm)											
Right Turn on Red											
Satd. Flow (RTOR)											
Link Speed (mph)											
Link Distance (ft)											
Travel Time (s)											
Peak Hour Factor											
Growth Factor											
Adj. Flow (vph)											
Shared Lane Traffic (%)											
Lane Group Flow (vph)											
Enter Blocked Intersection											
Lane Alignment											
Median Width(ft)											
Link Offset(ft)											
Crosswalk Width(ft)											
Two way Left Turn Lane											
Headway Factor											
Turning Speed (mph)											
Number of Detectors											
Detector Template											
Leading Detector (ft)											
Trailing Detector (ft)											
Detector 1 Position(ft)											
Detector 1 Size(ft)											
Detector 1 Type											
Detector 1 Channel											
Detector 1 Extend (s)											
Detector 1 Queue (s)											
Detector 1 Delay (s)											
Detector 2 Position(ft)											
Detector 2 Size(ft)											
Detector 2 Type											
Detector 2 Channel											
Detector 2 Extend (s)											
Turn Type											
Protected Phases	1	3	4	5	6	7	8	11	15	16	21
Permitted Phases											
Detector Phase											
Switch Phase											
Minimum Initial (s)	3.0	1.0	5.0	3.0	8.0	1.0	1.0	3.0	3.0	4.0	1.0

2020 Left-Turn Prohibition  
104: US 59 SBFR & Kingwood Dr.

PM Peak Hour

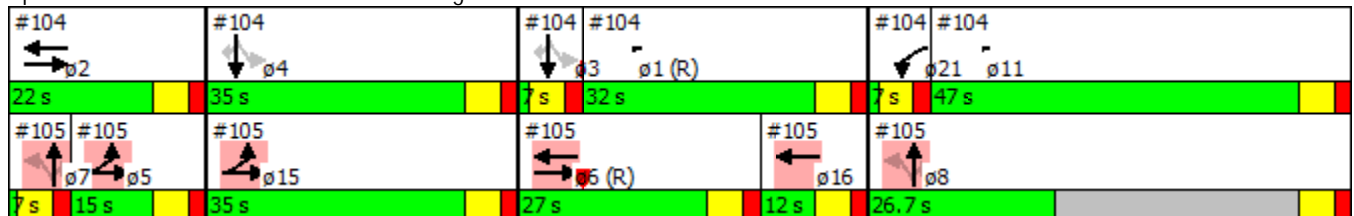


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)		13.0										
Total Split (s)		22.0										
Total Split (%)		14.7%										
Maximum Green (s)		16.0										
Yellow Time (s)		4.0										
All-Red Time (s)		2.0										
Lost Time Adjust (s)		0.0										
Total Lost Time (s)		6.0										
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0										
Recall Mode		Max										
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effect Green (s)		16.0		85.2	94.2					30.8	30.8	30.8
Actuated g/C Ratio		0.11		0.57	0.63					0.21	0.21	0.21
v/c Ratio		1.20dr		0.62	0.35					0.39	0.41	0.23
Control Delay		132.9		10.0	3.1					54.5	51.5	1.2
Queue Delay		0.1		9.0	0.7					75.6	58.4	2.4
Total Delay		133.0		19.0	3.8					130.1	109.8	3.5
LOS		F		B	A					F	F	A
Approach Delay		133.0			13.1						94.7	
Approach LOS		F			B						F	

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 8 (5%), Referenced to phase 1:WBTL and 6:, Start of Green  
 Natural Cycle: 95  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.14  
 Intersection Signal Delay: 56.3 Intersection LOS: E  
 Intersection Capacity Utilization 91.5% ICU Level of Service F  
 Analysis Period (min) 15  
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 104: US 59 SBFR & Kingwood Dr.



2020 Left-Turn Prohibition  
 104: US 59 SBFR & Kingwood Dr.

PM Peak Hour

Lane Group	ø1	ø3	ø4	ø5	ø6	ø7	ø8	ø11	ø15	ø16	ø21
Minimum Split (s)	9.0	7.0	11.7	9.0	26.0	7.0	26.7	9.0	9.0	10.0	7.0
Total Split (s)	32.0	7.0	35.0	15.0	27.0	7.0	26.7	47.0	35.0	12.0	7.0
Total Split (%)	21%	5%	23%	10%	18%	5%	18%	31%	23%	8%	5%
Maximum Green (s)	26.0	1.0	29.0	9.0	21.0	1.0	20.7	41.0	29.0	6.0	1.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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
Lost Time Adjust (s)											
Total Lost Time (s)											
Lead/Lag	Lag	Lead		Lag	Lead	Lead		Lag		Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes		Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	None	None	None	C-Max	Max	None	None	None	None	None
Walk Time (s)					5.0			6.0			
Flash Dont Walk (s)					15.0			14.0			
Pedestrian Calls (#/hr)					0			0			
Act Effect Green (s)											
Actuated g/C Ratio											
v/c Ratio											
Control Delay											
Queue Delay											
Total Delay											
LOS											
Approach Delay											
Approach LOS											
<b>Intersection Summary</b>											





2020 Left-Turn Prohibition  
 105: US 59 NBFR & Kingwood Dr.

PM Peak Hour

Lane Group	ø1	ø2	ø3	ø4	ø5	ø6	ø7	ø8	ø11	ø15	ø16	ø21
Lane Configurations												
Volume (vph)												
Ideal Flow (vphpl)												
Lane Util. Factor												
Frt												
Flt Protected												
Satd. Flow (prot)												
Flt Permitted												
Satd. Flow (perm)												
Right Turn on Red												
Satd. Flow (RTOR)												
Link Speed (mph)												
Link Distance (ft)												
Travel Time (s)												
Peak Hour Factor												
Growth Factor												
Adj. Flow (vph)												
Shared Lane Traffic (%)												
Lane Group Flow (vph)												
Enter Blocked Intersection												
Lane Alignment												
Median Width(ft)												
Link Offset(ft)												
Crosswalk Width(ft)												
Two way Left Turn Lane												
Headway Factor												
Turning Speed (mph)												
Number of Detectors												
Detector Template												
Leading Detector (ft)												
Trailing Detector (ft)												
Detector 1 Position(ft)												
Detector 1 Size(ft)												
Detector 1 Type												
Detector 1 Channel												
Detector 1 Extend (s)												
Detector 1 Queue (s)												
Detector 1 Delay (s)												
Detector 2 Position(ft)												
Detector 2 Size(ft)												
Detector 2 Type												
Detector 2 Channel												
Detector 2 Extend (s)												
Turn Type												
Protected Phases	1	2	3	4	5	6	7	8	11	15	16	21
Permitted Phases												
Detector Phase												
Switch Phase												
Minimum Initial (s)	3.0	7.0	1.0	5.0	3.0	8.0	1.0	1.0	3.0	3.0	4.0	1.0

2020 Left-Turn Prohibition  
105: US 59 NBFR & Kingwood Dr.

PM Peak Hour

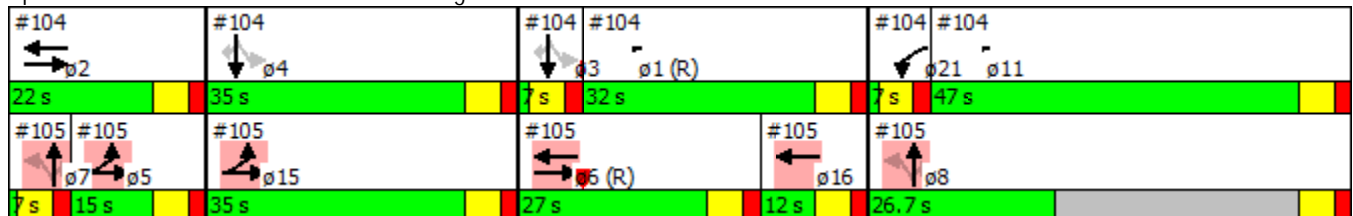


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)												
Recall Mode												
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	33.2	71.0			43.8		55.0	55.0	55.0			
Actuated g/C Ratio	0.22	0.47			0.29		0.37	0.37	0.37			
v/c Ratio	0.42	0.25			0.94		0.57	0.57	0.84			
Control Delay	8.8	2.8			33.4		42.9	39.7	23.2			
Queue Delay	0.6	2.2			27.2		63.8	52.8	48.2			
Total Delay	9.4	5.0			60.7		106.7	92.5	71.4			
LOS	A	A			E		F	F	E			
Approach Delay		6.9			60.7			84.0				
Approach LOS		A			E			F				

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	8 (5%), Referenced to phase 1:WBTL and 6:, Start of Green
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.14
Intersection Signal Delay:	64.5
Intersection LOS:	E
Intersection Capacity Utilization:	91.5%
ICU Level of Service:	F
Analysis Period (min):	15

Splits and Phases: 105: US 59 NBFR & Kingwood Dr.



Lane Group	ø1	ø2	ø3	ø4	ø5	ø6	ø7	ø8	ø11	ø15	ø16	ø21				
Minimum Split (s)	9.0	13.0	7.0	11.7	9.0	26.0	7.0	26.7	9.0	9.0	10.0	7.0				
Total Split (s)	32.0	22.0	7.0	35.0	15.0	27.0	7.0	26.7	47.0	35.0	12.0	7.0				
Total Split (%)	21%	15%	5%	23%	10%	18%	5%	18%	31%	23%	8%	5%				
Maximum Green (s)	26.0	16.0	1.0	29.0	9.0	21.0	1.0	20.7	41.0	29.0	6.0	1.0				
Yellow Time (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				
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				
Lost Time Adjust (s)																
Total Lost Time (s)																
Lead/Lag	Lag		Lead		Lag		Lead		Lead		Lag		Lag		Lead	
Lead-Lag Optimize?	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	Max	None	None	None	C-Max	Max	None	None	None	None	None	None	None	None	None
Walk Time (s)							5.0		6.0							
Flash Dont Walk (s)							15.0		14.0							
Pedestrian Calls (#/hr)							0		0							
Act Effct Green (s)																
Actuated g/C Ratio																
v/c Ratio																
Control Delay																
Queue Delay																
Total Delay																
LOS																
Approach Delay																
Approach LOS																
Intersection Summary																

2020 Left-Turn Prohibition  
107: Kingwood Dr.

PM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	5	196	289	375	70	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.869		0.918			
Flt Protected	0.998					0.978
Satd. Flow (prot)	1615	0	1710	0	0	1822
Flt Permitted	0.998					0.978
Satd. Flow (perm)	1615	0	1710	0	0	1822
Link Speed (mph)	40		35			35
Link Distance (ft)	2029		3577			5784
Travel Time (s)	34.6		69.7			112.7
Peak Hour Factor	0.63	0.77	0.79	0.66	0.92	0.84
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	9	288	413	642	86	109
Shared Lane Traffic (%)						
Lane Group Flow (vph)	297	0	1055	0	0	195
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Stop			Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	76.4%
Analysis Period (min)	15
	ICU Level of Service D



2020 Left-Turn Prohibition  
 111: Lake Houston Parkway & Rustic Woods

PM Peak Hour

Lane Group	ø1	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	1	6
Permitted Phases		

2020 Left-Turn Prohibition  
111: Lake Houston Parkway & Rustic Woods

PM Peak Hour

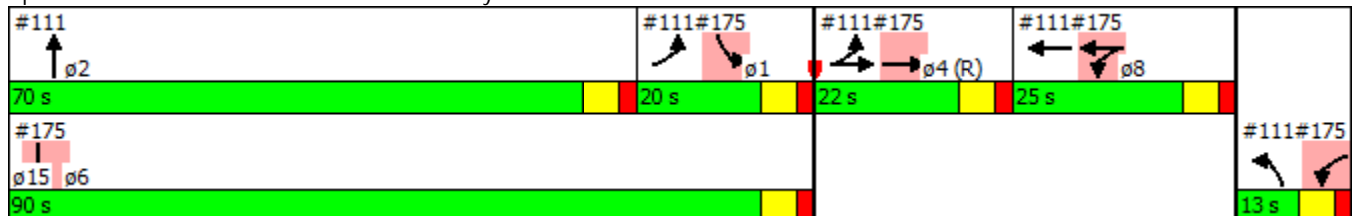


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1 4	4			8		15	2				
Switch Phase												
Minimum Initial (s)		5.0			5.0		5.0	4.0				
Minimum Split (s)		22.0			25.0		11.0	21.0				
Total Split (s)		22.0			25.0		13.0	70.0				
Total Split (%)		14.7%			16.7%		8.7%	46.7%				
Maximum Green (s)		16.0			19.0		7.0	64.0				
Yellow Time (s)		4.0			4.0		4.0	4.0				
All-Red Time (s)		2.0			2.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0		0.0	0.0				
Total Lost Time (s)		6.0			6.0		6.0	6.0				
Lead/Lag		Lead			Lag			Lead				
Lead-Lag Optimize?		Yes			Yes			Yes				
Vehicle Extension (s)		3.0			3.0		3.0	3.0				
Recall Mode		C-Max			None		None	Max				
Walk Time (s)		5.0			5.0			5.0				
Flash Dont Walk (s)		11.0			14.0			6.0				
Pedestrian Calls (#/hr)		0			0			0				
Act Effct Green (s)		32.0			16.0		10.0	68.0				
Actuated g/C Ratio		0.21			0.11		0.07	0.45				
v/c Ratio		0.23			0.60		1.10	1.02				
Control Delay		20.0			43.1		173.4	69.1				
Queue Delay		10.7			0.7		0.7	0.0				
Total Delay		30.7			43.9		174.1	69.1				
LOS		C			D		F	E				
Approach Delay		30.7			43.9			76.9				
Approach LOS		C			D			E				

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	20 (13%), Referenced to phase 4:EBTL, Start of Green
Natural Cycle:	150
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.10
Intersection Signal Delay:	69.2
Intersection LOS:	E
Intersection Capacity Utilization:	69.1%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 111: Lake Houston Parkway & Rustic Woods



2020 Left-Turn Prohibition  
 111: Lake Houston Parkway & Rustic Woods

PM Peak Hour

Lane Group	ø1	ø6
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	4.0
Minimum Split (s)	20.0	21.0
Total Split (s)	20.0	90.0
Total Split (%)	13%	60%
Maximum Green (s)	14.0	84.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	Max
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		



2020 Left-Turn Prohibition  
115: Loop 494 & Kingwood Dr.

PM Peak Hour

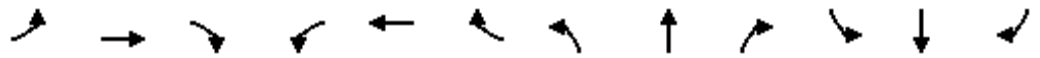


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	1353	145	0	1457	136	45	203	470	174	120	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	160		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986			0.987				0.850			0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1770	3490	0	1863	3493	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	1770	3490	0	1863	3493	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			9				109			112
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		1514			523			675			922	
Travel Time (s)		25.8			8.9			10.2			14.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%
Adj. Flow (vph)	19	1721	184	0	1853	173	57	258	598	221	153	123
Shared Lane Traffic (%)												
Lane Group Flow (vph)	19	1905	0	0	2026	0	57	258	598	221	153	123
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2			6		3	8		7	4	
Permitted Phases				6					8			4



2020 Left-Turn Prohibition  
118: Royal Forest /Royal Forest & Kingwood Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	1753	320	0	1383	12	180	26	84	10	13	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	150		0	0		0	0		0
Storage Lanes	1		1	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.999				0.850		0.888	
Flt Protected	0.950							0.958			0.996	
Satd. Flow (prot)	1770	3539	1583	1863	3536	0	0	1785	1583	0	1648	0
Flt Permitted	0.950							0.540			0.967	
Satd. Flow (perm)	1770	3539	1583	1863	3536	0	0	1006	1583	0	1600	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			254		1				65		146	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		523			284			392			750	
Travel Time (s)		8.9			4.8			8.9			17.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%
Adj. Flow (vph)	48	2229	407	0	1759	15	229	33	107	13	17	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	2229	407	0	1774	0	0	262	107	0	176	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases			2	6			8		8	4		

2020 Left-Turn Prohibition  
 118: Royal Forest /Royal Forest & Kingwood Dr.

PM Peak Hour

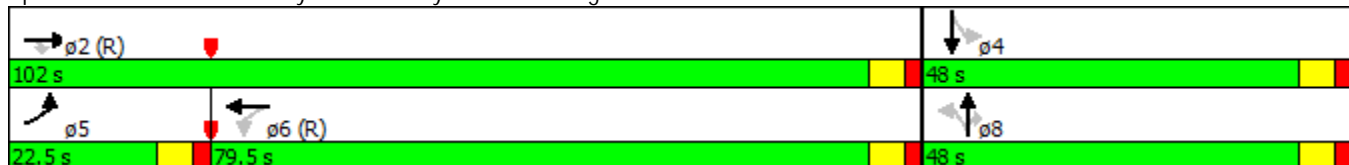


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	4.0	8.0	8.0	8.0	8.0		6.0	6.0	6.0	6.0	6.0	
Minimum Split (s)	22.5	22.0	22.0	22.0	22.0		23.5	23.5	23.5	13.5	13.5	
Total Split (s)	22.5	102.0	102.0	79.5	79.5		48.0	48.0	48.0	48.0	48.0	
Total Split (%)	15.0%	68.0%	68.0%	53.0%	53.0%		32.0%	32.0%	32.0%	32.0%	32.0%	
Maximum Green (s)	16.5	96.0	96.0	73.5	73.5		42.0	42.0	42.0	42.0	42.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0			6.0	6.0		6.0	
Lead/Lag	Lead				Lag				Lag			
Lead-Lag Optimize?	Yes				Yes				Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	C-Max	C-Max		None	None	None	None	None	
Walk Time (s)		5.0	5.0	5.0	5.0		5.0	5.0	5.0			
Flash Dont Walk (s)		11.0	11.0	11.0	11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)		0	0	0	0		0	0	0			
Act Effect Green (s)	9.4	97.5	97.5		84.4			40.5	40.5		40.5	
Actuated g/C Ratio	0.06	0.65	0.65		0.56			0.27	0.27		0.27	
v/c Ratio	0.43	0.97	0.36		0.89			0.97	0.23		0.33	
Control Delay	61.1	37.6	8.5		37.1			99.9	18.9		11.3	
Queue Delay	0.0	43.6	1.6		47.1			46.9	0.0		0.4	
Total Delay	61.1	81.2	10.1		84.2			146.8	18.9		11.8	
LOS	E	F	B		F			F	B		B	
Approach Delay		70.0			84.2			109.8			11.8	
Approach LOS		E			F			F			B	

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 76.0  
 Intersection LOS: E  
 Intersection Capacity Utilization 94.7%  
 ICU Level of Service F  
 Analysis Period (min) 15

Splits and Phases: 118: Royal Forest /Royal Forest & Kingwood Dr.



2020 Left-Turn Prohibition  
121: US 59 SBFR

PM Peak Hour

	↑	↗	↘	↓	↖	↗	↘
Lane Group	NBT	NBR	SBU	SBL	SBT	NWL	NWR
Lane Configurations			↘		↑↑↑↑		
Volume (vph)	0	0	149	0	463	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.81	1.00	1.00
Frt							
Flt Protected			0.950				
Satd. Flow (prot)	0	0	1770	0	7544	0	0
Flt Permitted			0.950				
Satd. Flow (perm)	0	0	1770	0	7544	0	0
Right Turn on Red		Yes		Yes		Yes	Yes
Satd. Flow (RTOR)							
Link Speed (mph)	55				55	30	
Link Distance (ft)	202				6181	331	
Travel Time (s)	2.5				76.6	7.5	
Peak Hour Factor	0.92	0.92	0.79	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	213	0	569	0	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	213	0	569	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Left	Left	Right
Median Width(ft)	12				12	0	
Link Offset(ft)	0				0	0	
Crosswalk Width(ft)	16				16	16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	9	15		15	9
Turn Type			Perm		NA		
Protected Phases					6		
Permitted Phases			6				
Minimum Split (s)			22.0		22.0		
Total Split (s)			22.0		22.0		
Total Split (%)			100.0%		100.0%		
Maximum Green (s)			16.0		16.0		
Yellow Time (s)			4.0		4.0		
All-Red Time (s)			2.0		2.0		
Lost Time Adjust (s)			0.0		0.0		
Total Lost Time (s)			6.0		6.0		
Lead/Lag							
Lead-Lag Optimize?							
Walk Time (s)			5.0		5.0		
Flash Dont Walk (s)			11.0		11.0		
Pedestrian Calls (#/hr)			0		0		
Act Effect Green (s)			22.0		22.0		
Actuated g/C Ratio			1.00		1.00		
v/c Ratio			0.12		0.08		
Control Delay			0.1		0.0		
Queue Delay			0.0		0.0		
Total Delay			0.1		0.0		

2020 Left-Turn Prohibition  
 121: US 59 SBFR

PM Peak Hour



Lane Group	NBT	NBR	SBU	SBL	SBT	NWL	NWR
LOS			A		A		
Approach Delay					0.1		
Approach LOS					A		

Intersection Summary

Area Type:	Other
Cycle Length:	22
Actuated Cycle Length:	22
Offset:	0 (0%), Referenced to phase 2: and 6:SBTU, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.12
Intersection Signal Delay:	0.1
Intersection LOS:	A
Intersection Capacity Utilization	33.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 121: US 59 SBFR



2020 Left-Turn Prohibition  
122: US 59 NBFR

PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	149	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	5085	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	5085	0	0
Right Turn on Red	Yes	Yes				Yes
Satd. Flow (RTOR)	1091					
Link Speed (mph)	30			55	55	
Link Distance (ft)	331			217	6159	
Travel Time (s)	7.5			2.7	76.4	
Peak Hour Factor	0.79	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	213	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	213	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	NA					
Protected Phases	4			2		
Permitted Phases						
Minimum Split (s)	22.0			22.0		
Total Split (s)	22.0			22.0		
Total Split (%)	50.0%			50.0%		
Maximum Green (s)	16.0			16.0		
Yellow Time (s)	4.0			4.0		
All-Red Time (s)	2.0			2.0		
Lost Time Adjust (s)	0.0			0.0		
Total Lost Time (s)	6.0			6.0		
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0			5.0		
Flash Dont Walk (s)	11.0			11.0		
Pedestrian Calls (#/hr)	0			0		
Act Effct Green (s)	16.0					
Actuated g/C Ratio	0.36					
v/c Ratio	0.16					
Control Delay	0.3					
Queue Delay	0.0					
Total Delay	0.3					

2020 Left-Turn Prohibition  
 122: US 59 NBFR

PM Peak Hour

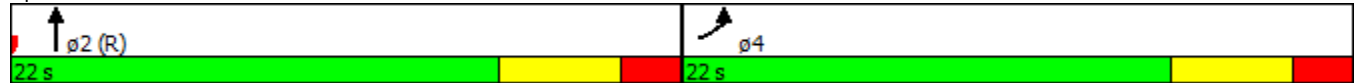


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
LOS	A					
Approach Delay	0.3					
Approach LOS	A					

Intersection Summary

Area Type:	Other					
Cycle Length:	44					
Actuated Cycle Length:	44					
Offset:	0 (0%), Referenced to phase 2:NBT and 6:, Start of Green					
Natural Cycle:	45					
Control Type:	Pretimed					
Maximum v/c Ratio:	0.16					
Intersection Signal Delay:	0.3			Intersection LOS: A		
Intersection Capacity Utilization	27.4%			ICU Level of Service A		
Analysis Period (min)	15					

Splits and Phases: 122: US 59 NBFR





2020 Left-Turn Prohibition  
123: US 59 SBFR

PM Peak Hour

	↑	↗	↘	↓	↙	↖
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations				↑↑↑	↙	
Volume (vph)	0	0	0	1230	198	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	1.00	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	0	0	5085	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	5085	1770	0
Right Turn on Red		Yes			Yes	Yes
Satd. Flow (RTOR)					3	
Link Speed (mph)	55			55	30	
Link Distance (ft)	6715			184	304	
Travel Time (s)	83.2			2.3	6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	1511	243	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	1511	243	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type				NA	NA	
Protected Phases				6	8	
Permitted Phases						
Minimum Split (s)				22.0	22.0	
Total Split (s)				22.0	22.0	
Total Split (%)				50.0%	50.0%	
Maximum Green (s)				16.0	16.0	
Yellow Time (s)				4.0	4.0	
All-Red Time (s)				2.0	2.0	
Lost Time Adjust (s)				0.0	0.0	
Total Lost Time (s)				6.0	6.0	
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)				5.0	5.0	
Flash Dont Walk (s)				11.0	11.0	
Pedestrian Calls (#/hr)				0	0	
Act Effect Green (s)				16.0	16.0	
Actuated g/C Ratio				0.36	0.36	
v/c Ratio				0.82	0.38	
Control Delay				17.7	12.3	
Queue Delay				48.0	0.0	
Total Delay				65.7	12.3	

2020 Left-Turn Prohibition  
 123: US 59 SBFR

PM Peak Hour

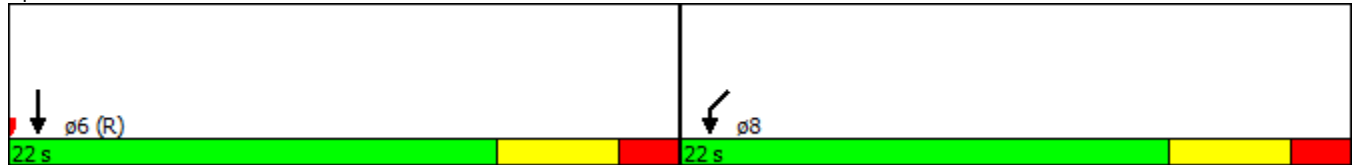


Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
LOS				E	B	
Approach Delay				65.7	12.3	
Approach LOS				E	B	

Intersection Summary

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2: and 6:SBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	58.3
Intersection Capacity Utilization	49.3%
Analysis Period (min)	15
Intersection LOS:	E
ICU Level of Service	A

Splits and Phases: 123: US 59 SBFR



2020 Left-Turn Prohibition  
124: US 59 NBFR

PM Peak Hour



Lane Group	NBU	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	<b>A</b>		<b>B</b>				
Volume (vph)	198	0	1986	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.76	1.00	1.00	1.00	1.00
Frt							
Flt Protected	0.950						
Satd. Flow (prot)	1770	0	8494	0	0	0	0
Flt Permitted	0.950						
Satd. Flow (perm)	1770	0	8494	0	0	0	0
Right Turn on Red		Yes			Yes	Yes	Yes
Satd. Flow (RTOR)							
Link Speed (mph)			55	55		30	
Link Distance (ft)			423	180		304	
Travel Time (s)			5.2	2.2		6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	243	0	2439	0	0	0	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	243	0	2439	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Left	Right	Left	Right
Median Width(ft)			12	12		0	
Link Offset(ft)			0	0		0	
Crosswalk Width(ft)			16	16		16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15			9	15	9
Turn Type	Perm		NA				
Protected Phases			2				
Permitted Phases	2						
Minimum Split (s)	22.0		22.0				
Total Split (s)	22.0		22.0				
Total Split (%)	100.0%		100.0%				
Maximum Green (s)	16.0		16.0				
Yellow Time (s)	4.0		4.0				
All-Red Time (s)	2.0		2.0				
Lost Time Adjust (s)	0.0		0.0				
Total Lost Time (s)	6.0		6.0				
Lead/Lag							
Lead-Lag Optimize?							
Walk Time (s)	5.0		5.0				
Flash Dont Walk (s)	11.0		11.0				
Pedestrian Calls (#/hr)	0		0				
Act Effect Green (s)	22.0		22.0				
Actuated g/C Ratio	1.00		1.00				
v/c Ratio	0.14		0.29				
Control Delay	0.2		0.1				
Queue Delay	0.0		0.0				
Total Delay	0.2		0.1				

2020 Left-Turn Prohibition  
 124: US 59 NBFR

PM Peak Hour



Lane Group	NBU	NBL	NBT	SBT	SBR	SEL	SER
LOS	A		A				
Approach Delay			0.1				
Approach LOS			A				

Intersection Summary

Area Type:	Other
Cycle Length:	22
Actuated Cycle Length:	22
Offset:	0 (0%), Referenced to phase 2:NBTU and 6:, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.29
Intersection Signal Delay:	0.1
Intersection LOS:	A
Intersection Capacity Utilization	49.3%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 124: US 59 NBFR





2020 Left-Turn Prohibition  
 125: Chestnut Ridge Dr. & Kingwood Dr.

PM Peak Hour

Lane Group	ø2	ø15
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	2	15
Permitted Phases		

2020 Left-Turn Prohibition  
125: Chestnut Ridge Dr. & Kingwood Dr.

PM Peak Hour

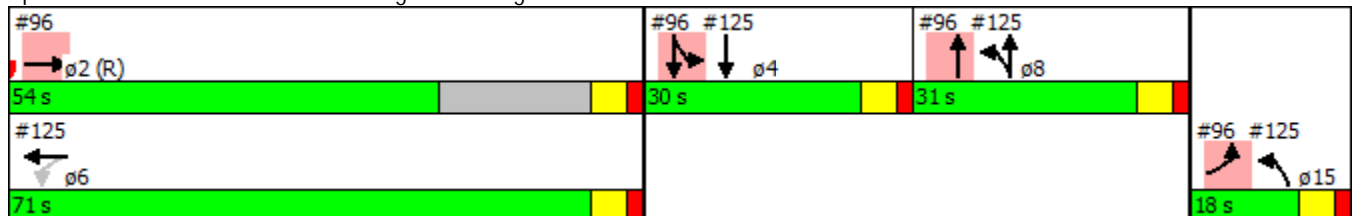


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase				6	6		15	8			4	
Switch Phase												
Minimum Initial (s)				4.0	4.0			5.0			5.0	
Minimum Split (s)				10.0	10.0			19.0			11.0	
Total Split (s)				71.0	71.0			31.0			30.0	
Total Split (%)				47.3%	47.3%			20.7%			20.0%	
Maximum Green (s)				65.0	65.0			25.0			24.0	
Yellow Time (s)				4.0	4.0			4.0			4.0	
All-Red Time (s)				2.0	2.0			2.0			2.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				6.0	6.0			6.0			6.0	
Lead/Lag								Lag			Lead	
Lead-Lag Optimize?								Yes			Yes	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Recall Mode				None	None			None			None	
Walk Time (s)								6.0				
Flash Dont Walk (s)								7.0				
Pedestrian Calls (#/hr)								0				
Act Effct Green (s)					65.2			42.8			24.0	
Actuated g/C Ratio					0.43			0.29			0.16	
v/c Ratio					1.10			0.44			1.04	
Control Delay					100.2			11.6			117.2	
Queue Delay					0.0			0.0			21.3	
Total Delay					100.2			11.6			138.6	
LOS					F			B			F	
Approach Delay					100.2			11.6			138.6	
Approach LOS					F			B			F	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	95 (63%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	150
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.10
Intersection Signal Delay:	96.5
Intersection LOS:	F
Intersection Capacity Utilization:	85.5%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 125: Chestnut Ridge Dr. & Kingwood Dr.



2020 Left-Turn Prohibition  
 125: Chestnut Ridge Dr. & Kingwood Dr.

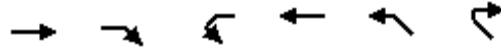
PM Peak Hour

Lane Group	ø2	ø15
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	5.0
Minimum Split (s)	20.0	11.0
Total Split (s)	54.0	18.0
Total Split (%)	36%	12%
Maximum Green (s)	48.0	12.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	C-Max	None
Walk Time (s)	4.0	
Flash Dont Walk (s)	10.0	
Pedestrian Calls (#/hr)	0	
Act Effect Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		



2020 Left-Turn Prohibition  
126: Kingwood Dr.

PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑		
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	3539	0	0	3539	0	0
Flt Permitted						
Satd. Flow (perm)	3539	0	0	3539	0	0
Link Speed (mph)	40			40	40	
Link Distance (ft)	1032			502	530	
Travel Time (s)	17.6			8.6	9.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0% ICU Level of Service A
Analysis Period (min)	15

2020 Left-Turn Prohibition  
128: Kingwood Dr. & Green Oak Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕	↗	↙	↕			↕↗	
Volume (vph)	0	0	0	0	1193	194	132	76	0	0	357	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	150		150	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Fr <sub>t</sub>						0.850						0.988
Fl <sub>t</sub> Protected							0.950					
Satd. Flow (prot)	0	0	0	1863	3539	1583	1770	1863	0	0	3497	0
Fl <sub>t</sub> Permitted							0.950					
Satd. Flow (perm)	0	0	0	1863	3539	1583	1770	1863	0	0	3497	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						137						5
Link Speed (mph)		40			40			30				30
Link Distance (ft)		558			1505			89				240
Travel Time (s)		9.5			25.7			2.0				5.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%	117%
Adj. Flow (vph)	0	0	0	0	1517	247	168	97	0	0	454	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1517	247	168	97	0	0	495	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2	1	1	2				2
Detector Template				Left	Thru	Right	Left	Thru				Thru
Leading Detector (ft)				20	100	20	20	100				100
Trailing Detector (ft)				0	0	0	0	0				0
Detector 1 Position(ft)				0	0	0	0	0				0
Detector 1 Size(ft)				20	6	20	20	6				6
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0				0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0				0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0				0.0
Detector 2 Position(ft)					94			94				94
Detector 2 Size(ft)					6			6				6
Detector 2 Type					Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0				0.0
Turn Type				Perm	NA	Perm	Prot	NA				NA
Protected Phases					6		15 8	8				4
Permitted Phases				6		6						

Lane Group	ø2	ø15
Lane Configurations		
Volume (vph)		
Ideal Flow (vphp)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	2	15
Permitted Phases		

2020 Left-Turn Prohibition  
128: Kingwood Dr. & Green Oak Dr.

PM Peak Hour

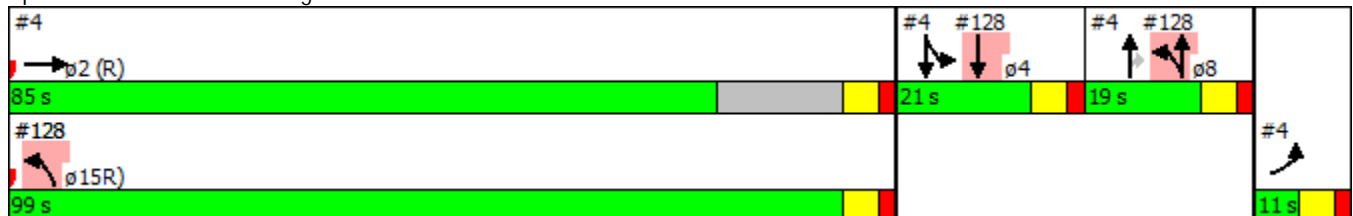


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase				6	6	6	15	8				4
Switch Phase												
Minimum Initial (s)				4.0	4.0	4.0		5.0				5.0
Minimum Split (s)				10.0	10.0	10.0		19.0				11.0
Total Split (s)				99.0	99.0	99.0		19.0				21.0
Total Split (%)				66.0%	66.0%	66.0%		12.7%				14.0%
Maximum Green (s)				93.0	93.0	93.0		13.0				15.0
Yellow Time (s)				4.0	4.0	4.0		4.0				4.0
All-Red Time (s)				2.0	2.0	2.0		2.0				2.0
Lost Time Adjust (s)				0.0	0.0	0.0		0.0				0.0
Total Lost Time (s)				6.0	6.0	6.0		6.0				6.0
Lead/Lag								Lag				Lead
Lead-Lag Optimize?								Yes				Yes
Vehicle Extension (s)				3.0	3.0	3.0		3.0				3.0
Recall Mode				C-Max	C-Max	C-Max		None				None
Walk Time (s)								6.0				
Flash Dont Walk (s)								7.0				
Pedestrian Calls (#/hr)								0				
Act Effct Green (s)					93.0	93.0	24.0	13.0				15.0
Actuated g/C Ratio					0.62	0.62	0.16	0.09				0.10
v/c Ratio					0.69	0.24	0.59	0.60				1.40
Control Delay					21.1	5.9	7.4	40.4				241.8
Queue Delay					0.0	0.0	0.0	0.0				0.4
Total Delay					21.1	5.9	7.4	40.4				242.2
LOS					C	A	A	D				F
Approach Delay					18.9			19.5				242.2
Approach LOS					B			B				F

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:, Start of Green  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.19  
 Intersection Signal Delay: 62.8  
 Intersection LOS: E  
 Intersection Capacity Utilization 141.4%  
 ICU Level of Service H  
 Analysis Period (min) 15

Splits and Phases: 128: Kingwood Dr. & Green Oak Dr.



2020 Left-Turn Prohibition  
128: Kingwood Dr. & Green Oak Dr.

PM Peak Hour

Lane Group	ø2	ø15
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	5.0
Minimum Split (s)	20.0	11.0
Total Split (s)	85.0	11.0
Total Split (%)	57%	7%
Maximum Green (s)	79.0	5.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	C-Max	None
Walk Time (s)	4.0	
Flash Dont Walk (s)	10.0	
Pedestrian Calls (#/hr)	0	
Act Effect Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

2020 Left-Turn Prohibition  
133: Kingwood Dr.

PM Peak Hour



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations		↑↑				↑↑
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.88	1.00	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	0	3278	0	0	0	3539
Flt Permitted						
Satd. Flow (perm)	0	3278	0	0	0	3539
Link Speed (mph)	40		30			40
Link Distance (ft)	922		873			1945
Travel Time (s)	15.7		19.8			33.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	100		100			100
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Free		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0% ICU Level of Service A
Analysis Period (min)	15



2020 Left-Turn Prohibition  
 136: Kingwood Dr. & Lake Kingwood Trail

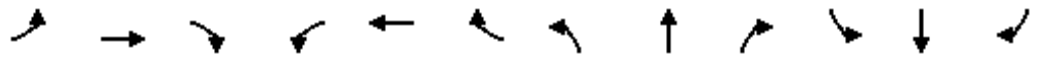
PM Peak Hour

Lane Group	ø2	ø15
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	2	15
Permitted Phases		



2020 Left-Turn Prohibition  
136: Kingwood Dr. & Lake Kingwood Trail

PM Peak Hour

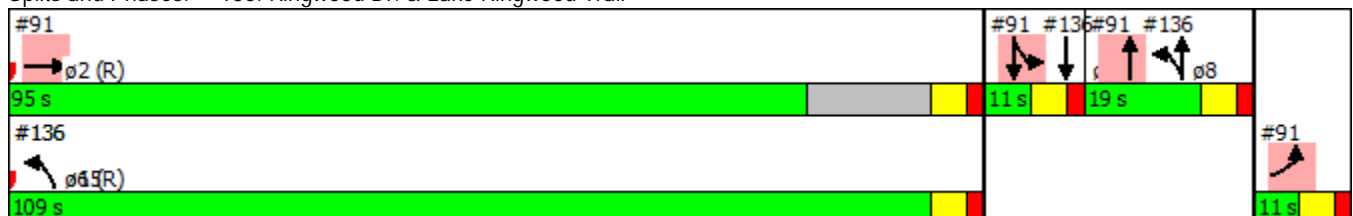


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase				6	6		15	8				4
Switch Phase												
Minimum Initial (s)				4.0	4.0			5.0				5.0
Minimum Split (s)				10.0	10.0			19.0				11.0
Total Split (s)				109.0	109.0			19.0				11.0
Total Split (%)				72.7%	72.7%			12.7%				7.3%
Maximum Green (s)				103.0	103.0			13.0				5.0
Yellow Time (s)				4.0	4.0			4.0				4.0
All-Red Time (s)				2.0	2.0			2.0				2.0
Lost Time Adjust (s)				0.0	0.0			0.0				0.0
Total Lost Time (s)				6.0	6.0			6.0				6.0
Lead/Lag								Lag				Lead
Lead-Lag Optimize?								Yes				Yes
Vehicle Extension (s)				3.0	3.0			3.0				3.0
Recall Mode				C-Max	C-Max			None				None
Walk Time (s)								6.0				
Flash Dont Walk (s)								7.0				
Pedestrian Calls (#/hr)								0				
Act Effct Green (s)					109.6			17.4				5.0
Actuated g/C Ratio					0.73			0.12				0.03
v/c Ratio					0.56			0.16				0.97
Control Delay					10.7			14.4				136.9
Queue Delay					0.0			4.5				15.4
Total Delay					10.7			18.9				152.3
LOS					B			B				F
Approach Delay					10.7			18.9				152.3
Approach LOS					B			B				F

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 21.5      Intersection LOS: C  
 Intersection Capacity Utilization 56.9%      ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 136: Kingwood Dr. & Lake Kingwood Trail



2020 Left-Turn Prohibition  
 136: Kingwood Dr. & Lake Kingwood Trail

PM Peak Hour

Lane Group	ø2	ø15
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	5.0
Minimum Split (s)	20.0	11.0
Total Split (s)	95.0	11.0
Total Split (%)	63%	7%
Maximum Green (s)	89.0	5.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	C-Max	None
Walk Time (s)	4.0	
Flash Dont Walk (s)	10.0	
Pedestrian Calls (#/hr)	0	
Act Effect Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

2020 Left-Turn Prohibition  
139: Kingwood High School & Kingwood Dr.

PM Peak Hour



Lane Group	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR	SWR2	ø2
Lane Configurations				↑↑	↑		↑			↑↑	↑	
Volume (vph)	0	0	0	165	46	0	18	0	0	1158	123	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	0		0	0		0	0	150		
Storage Lanes	0	0	0		1	0		0	0	2		
Taper Length (ft)	25		25			25			25			
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.88	1.00	
Frt					0.850					0.850	0.850	
Flt Protected												
Satd. Flow (prot)	0	0	0	3539	1583	0	1863	0	0	2787	1583	
Flt Permitted												
Satd. Flow (perm)	0	0	0	3539	1583	0	1863	0	0	2787	1583	
Right Turn on Red		Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					109							115
Link Speed (mph)	30			30			30		30			
Link Distance (ft)	184			317			239		873			
Travel Time (s)	4.2			7.2			5.4		19.8			
Peak Hour Factor	0.92	0.92	0.92	0.81	0.89	0.92	0.56	0.92	0.92	0.90	0.75	
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	
Adj. Flow (vph)	0	0	0	230	58	0	36	0	0	1454	185	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	230	58	0	36	0	0	1454	185	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right	
Median Width(ft)	60			0			0		60			
Link Offset(ft)	0			0			0		0			
Crosswalk Width(ft)	16			16			16		16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9	15		9	15		9	15	9	9	
Turn Type				NA	Perm	Prot	NA			custom	custom	
Protected Phases				4		15	8			6		2
Permitted Phases					4							6
Minimum Split (s)				11.0	11.0		11.0			10.0	10.0	10.0
Total Split (s)				20.0	20.0		11.0			107.0	107.0	107.0
Total Split (%)				13.3%	13.3%		7.3%			71.3%	71.3%	71%
Maximum Green (s)				14.0	14.0		5.0			101.0	101.0	101.0
Yellow Time (s)				4.0	4.0		4.0			4.0	4.0	4.0
All-Red Time (s)				2.0	2.0		2.0			2.0	2.0	2.0
Lost Time Adjust (s)				0.0	0.0		0.0			0.0	0.0	
Total Lost Time (s)				6.0	6.0		6.0			6.0	6.0	
Lead/Lag				Lead	Lead		Lag					
Lead-Lag Optimize?				Yes	Yes		Yes					
Act Effect Green (s)				14.0	14.0		5.0			101.0	101.0	
Actuated g/C Ratio				0.09	0.09		0.03			0.67	0.67	
v/c Ratio				0.70	0.24		0.58			0.78	0.17	
Control Delay				77.9	2.2		159.8			20.4	3.7	
Queue Delay				0.1	0.0		0.0			0.0	0.0	
Total Delay				78.0	2.2		159.8			20.4	3.7	

2020 Left-Turn Prohibition  
 139: Kingwood High School & Kingwood Dr.

PM Peak Hour

Lane Group	ø15
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Growth Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	15
Permitted Phases	
Minimum Split (s)	10.0
Total Split (s)	12.0
Total Split (%)	8%
Maximum Green (s)	6.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

2020 Left-Turn Prohibition  
 139: Kingwood High School & Kingwood Dr.

PM Peak Hour



Lane Group	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR	SWR2	ø2
LOS				E	A		F			C	A	
Approach Delay				62.7			159.8					
Approach LOS				E			F					

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	0 (0%), Referenced to phase 2:EBL and 6:, Start of Green
Natural Cycle:	110
Control Type:	Pretimed
Maximum v/c Ratio:	0.99
Intersection Signal Delay:	27.6
Intersection LOS:	C
Intersection Capacity Utilization	115.5%
ICU Level of Service	H
Analysis Period (min)	15

Splits and Phases: 139: Kingwood High School & Kingwood Dr.

#88 ø2 (R)	#88 #139 ø4	#139 ø8	
107 s	20 s	11 s	
#139 ø15 ø6 (R)			#88 #139
107 s			12 s

Lane Group	ø15
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

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2020 Left-Turn Prohibition  
141: Lake Houston Parkway & Kingwood Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	336	856	720	0	653	206	527	798	124	322	824	232
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	150		150	150		150
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Fr <sub>t</sub>			0.850			0.850			0.850			0.850
Fl <sub>t</sub> Protected	0.950						0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3614	3539	1583	3433	3539	1583	3433	3539	1583
Fl <sub>t</sub> Permitted	0.950						0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3614	3539	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			380			153			109			136
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		513			546			450			568	
Travel Time (s)		8.7			9.3			7.7			9.7	
Peak Hour Factor	0.98	0.96	0.96	0.83	0.93	0.82	0.96	0.94	0.82	0.93	0.93	0.85
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	387	1008	848	0	793	284	620	959	171	391	1001	308
Shared Lane Traffic (%)												
Lane Group Flow (vph)	387	1008	848	0	793	284	620	959	171	391	1001	308
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			30			75			75	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2			6		3	8		7	4	
Permitted Phases			2	6		6			8			4
Minimum Split (s)	10.0	22.0	22.0	22.0	22.0	22.0	10.0	22.0	22.0	10.0	22.0	22.0
Total Split (s)	24.0	68.0	68.0	44.0	44.0	44.0	34.0	54.0	54.0	28.0	48.0	48.0
Total Split (%)	16.0%	45.3%	45.3%	29.3%	29.3%	29.3%	22.7%	36.0%	36.0%	18.7%	32.0%	32.0%
Maximum Green (s)	18.0	62.0	62.0	38.0	38.0	38.0	28.0	48.0	48.0	22.0	42.0	42.0
Yellow Time (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
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
Lost Time Adjust (s)	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 Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)		5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0		0	0		0	0
Act Effct Green (s)	18.0	62.0	62.0		38.0	38.0	28.0	48.0	48.0	22.0	42.0	42.0
Actuated g/C Ratio	0.12	0.41	0.41		0.25	0.25	0.19	0.32	0.32	0.15	0.28	0.28
v/c Ratio	0.94	0.69	0.97		0.89	0.55	0.97	0.85	0.29	0.78	1.01	0.57

2020 Left-Turn Prohibition  
 141: Lake Houston Parkway & Kingwood Dr.

PM Peak Hour

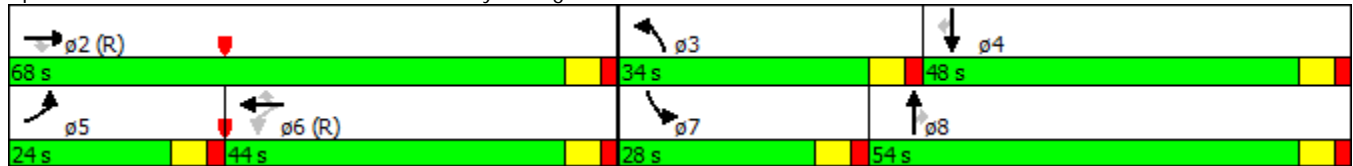


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	96.7	39.1	47.0		65.9	37.3	88.6	55.9	15.7	73.2	84.3	29.7
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.7	39.1	47.0		65.9	37.3	88.6	55.9	15.7	73.2	84.3	29.7
LOS	F	D	D		E	D	F	E	B	E	F	C
Approach Delay		52.0			58.4			63.5			71.8	
Approach LOS		D			E			E			E	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	77 (51%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle:	110
Control Type:	Pretimed
Maximum v/c Ratio:	1.01
Intersection Signal Delay:	61.0
Intersection LOS:	E
Intersection Capacity Utilization	94.0%
ICU Level of Service	F
Analysis Period (min)	15

Splits and Phases: 141: Lake Houston Parkway & Kingwood Dr.





2020 Left-Turn Prohibition  
144: Forest Garden Dr. & Kingwood Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	166	1172	130	3	702	14	151	126	277	45	18	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.983			0.996			0.924			0.911	
Flt Protected	0.950			0.950				0.990			0.988	
Satd. Flow (prot)	1770	3479	0	1770	3525	0	0	3238	0	0	3186	0
Flt Permitted	0.109			0.078				0.789			0.559	
Satd. Flow (perm)	203	3479	0	145	3525	0	0	2580	0	0	1802	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			2			24			159	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		821			549			426			481	
Travel Time (s)		14.0			9.4			9.7			10.9	
Peak Hour Factor	0.92	0.96	0.85	0.75	0.88	0.58	0.84	0.50	0.63	0.80	0.45	0.89
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	204	1380	173	5	901	27	203	285	497	64	45	159
Shared Lane Traffic (%)												
Lane Group Flow (vph)	204	1553	0	5	928	0	0	985	0	0	268	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		40			50			40			40	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Minimum Split (s)	10.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	23.0	80.0		57.0	57.0		70.0	70.0		70.0	70.0	
Total Split (%)	15.3%	53.3%		38.0%	38.0%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	17.0	74.0		51.0	51.0		64.0	64.0		64.0	64.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Walk Time (s)		5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effect Green (s)	74.0	74.0		51.0	51.0			64.0			64.0	
Actuated g/C Ratio	0.49	0.49		0.34	0.34			0.43			0.43	
v/c Ratio	0.74	0.90		0.10	0.77			0.88			0.31	

2020 Left-Turn Prohibition  
 144: Forest Garden Dr. & Kingwood Dr.

PM Peak Hour

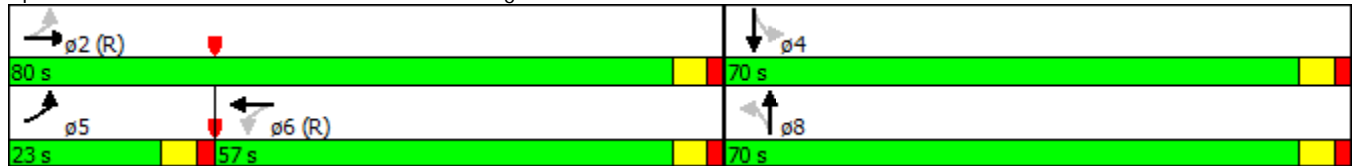


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	60.2	41.8		40.5	49.5			49.3			12.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	60.2	41.8		40.5	49.5			49.3			12.0	
LOS	E	D		D	D			D			B	
Approach Delay		43.9			49.5			49.3			12.0	
Approach LOS		D			D			D			B	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	93 (62%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	44.4
Intersection LOS:	D
Intersection Capacity Utilization	90.2%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 144: Forest Garden Dr. & Kingwood Dr.



2020 Left-Turn Prohibition  
147: Kingwood Dr. & Timber Shade Dr.

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	1	676	7	29	111	0	0	8	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	150		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.997						0.873	
Flt Protected				0.950				0.987				
Satd. Flow (prot)	0	0	0	1770	3529	0	0	3493	0	0	3090	0
Flt Permitted				0.950				0.987				
Satd. Flow (perm)	0	0	0	1770	3529	0	0	3493	0	0	3090	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2							99
Link Speed (mph)		40			40			30				30
Link Distance (ft)		833			1635			136				459
Travel Time (s)		14.2			27.9			3.1				10.4
Peak Hour Factor	0.92	0.92	0.92	0.25	0.96	0.58	0.60	0.84	0.92	0.92	0.50	0.83
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	5	796	14	55	149	0	0	18	99
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	5	810	0	0	204	0	0	117	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type				Prot	NA		Prot	NA				NA
Protected Phases				1	6		15	8				4
Permitted Phases												
Minimum Split (s)				11.0	10.0			19.0				11.0
Total Split (s)				11.0	91.0			19.0				13.0
Total Split (%)				7.3%	60.7%			12.7%				8.7%
Maximum Green (s)				5.0	85.0			13.0				7.0
Yellow Time (s)				4.0	4.0			4.0				4.0
All-Red Time (s)				2.0	2.0			2.0				2.0
Lost Time Adjust (s)				0.0	0.0			0.0				0.0
Total Lost Time (s)				6.0	6.0			6.0				6.0
Lead/Lag				Lag				Lag				Lead
Lead-Lag Optimize?				Yes				Yes				Yes
Walk Time (s)								6.0				
Flash Dont Walk (s)								7.0				
Pedestrian Calls (#/hr)								0				
Act Effect Green (s)				5.0	85.0			40.0				7.0
Actuated g/C Ratio				0.03	0.57			0.27				0.05
v/c Ratio				0.08	0.41			0.22				0.49

2020 Left-Turn Prohibition  
 147: Kingwood Dr. & Timber Shade Dr.

PM Peak Hour

Lane Group	ø2	ø15
Lane Configurations		
Volume (vph)		
Ideal Flow (vphp)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	2	15
Permitted Phases		
Minimum Split (s)	20.0	11.0
Total Split (s)	80.0	27.0
Total Split (%)	53%	18%
Maximum Green (s)	74.0	21.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?	Yes	
Walk Time (s)	4.0	
Flash Dont Walk (s)	10.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		

2020 Left-Turn Prohibition  
 147: Kingwood Dr. & Timber Shade Dr.

PM Peak Hour

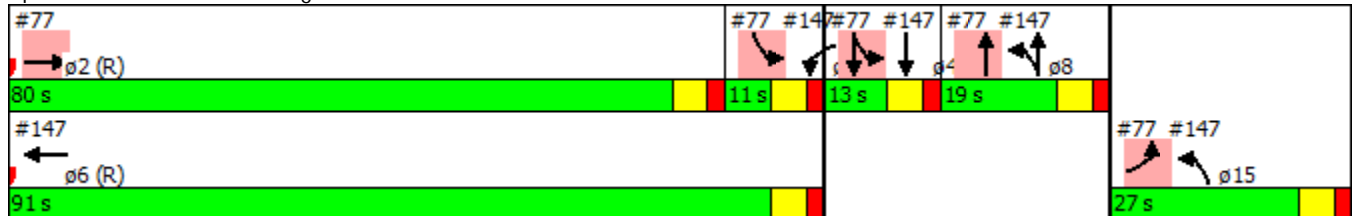


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay				80.0	23.1			3.6			25.0	
Queue Delay				0.0	0.0			1.3			0.0	
Total Delay				80.0	23.1			4.9			25.0	
LOS				E	C			A			C	
Approach Delay					23.4			4.9			25.0	
Approach LOS					C			A			C	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	0 (0%), Referenced to phase 2:EBT and 6:, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	20.3
Intersection LOS:	C
Intersection Capacity Utilization	39.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 147: Kingwood Dr. & Timber Shade Dr.



Lane Group	ø2	ø15
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

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2020 Left-Turn Prohibition  
149: Kingwood Dr. & Willow Terrace

PM Peak Hour



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	20	56	299	96	0	0	0	0	34	349	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	150		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.901										0.996
Flt Protected				0.950	0.980					0.950		
Satd. Flow (prot)	0	3189	0	1681	1734	0	0	0	0	1770	3525	0
Flt Permitted				0.950	0.980					0.950		
Satd. Flow (perm)	0	3189	0	1681	1734	0	0	0	0	1770	3525	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		77										3
Link Speed (mph)		30			30			40				40
Link Distance (ft)		359			105			1385				466
Travel Time (s)		8.2			2.4			23.6				7.9
Peak Hour Factor	0.92	0.56	0.82	0.92	0.71	0.92	0.92	0.92	0.92	0.77	0.77	0.50
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	40	77	367	153	0	0	0	0	50	512	14
Shared Lane Traffic (%)				30%								
Lane Group Flow (vph)	0	117	0	257	263	0	0	0	0	50	526	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Prot	NA					Prot	NA	
Protected Phases		4		15 8	8					1	6	
Permitted Phases												
Minimum Split (s)		11.0			19.0					11.0	10.0	
Total Split (s)		12.0			31.0					15.0	84.0	
Total Split (%)		8.0%			20.7%					10.0%	56.0%	
Maximum Green (s)		6.0			25.0					9.0	78.0	
Yellow Time (s)		4.0			4.0					4.0	4.0	
All-Red Time (s)		2.0			2.0					2.0	2.0	
Lost Time Adjust (s)		0.0			0.0					0.0	0.0	
Total Lost Time (s)		6.0			6.0					6.0	6.0	
Lead/Lag		Lead			Lag					Lag		
Lead-Lag Optimize?		Yes			Yes					Yes		
Walk Time (s)					6.0							
Flash Dont Walk (s)					7.0							
Pedestrian Calls (#/hr)					0							
Act Effect Green (s)		6.0		48.0	48.0					9.0	78.0	
Actuated g/C Ratio		0.04		0.32	0.32					0.06	0.52	
v/c Ratio		0.58		0.48	0.47					0.47	0.29	

2020 Left-Turn Prohibition  
 149: Kingwood Dr. & Willow Terrace

PM Peak Hour

Lane Group	ø2	ø15
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	2	15
Permitted Phases		
Minimum Split (s)	20.0	11.0
Total Split (s)	69.0	23.0
Total Split (%)	46%	15%
Maximum Green (s)	63.0	17.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?	Yes	
Walk Time (s)	4.0	
Flash Dont Walk (s)	10.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		



2020 Left-Turn Prohibition  
 149: Kingwood Dr. & Willow Terrace

PM Peak Hour

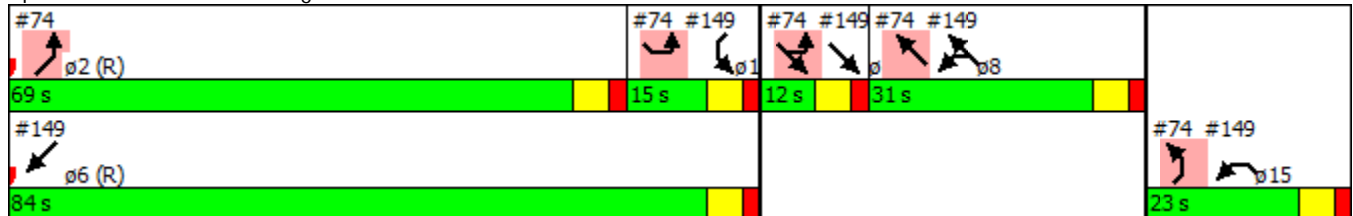


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Control Delay		39.4		3.2	3.2					77.3	16.5	
Queue Delay		0.0		2.8	2.8					0.0	0.0	
Total Delay		39.4		6.0	5.9					77.3	16.5	
LOS		D		A	A					E	B	
Approach Delay		39.4			6.0						21.7	
Approach LOS		D			A						C	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	48 (32%), Referenced to phase 2:NEL and 6:, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	16.7
Intersection LOS:	B
Intersection Capacity Utilization	40.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 149: Kingwood Dr. & Willow Terrace



Lane Group	ø2	ø15
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

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2020 Left-Turn Prohibition  
 151: Kingwood Dr. & High Valley

PM Peak Hour

Lane Group	ø2	ø15
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	2	15
Permitted Phases		
Minimum Split (s)	20.0	11.0
Total Split (s)	78.0	18.0
Total Split (%)	52%	12%
Maximum Green (s)	72.0	12.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?	Yes	
Walk Time (s)	4.0	
Flash Dont Walk (s)	10.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		

2020 Left-Turn Prohibition  
 151: Kingwood Dr. & High Valley

PM Peak Hour

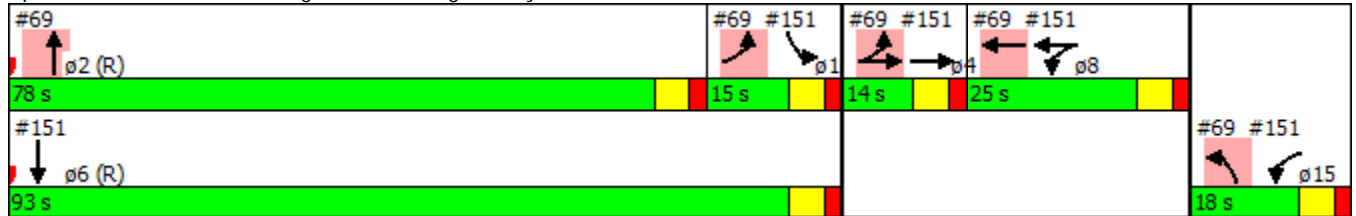


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		C		C	C							B
Approach Delay		33.2			21.5							17.2
Approach LOS		C			C							B

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	48 (32%), Referenced to phase 2:NBT and 6:, Start of Green
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	0.49
Intersection Signal Delay:	19.9
Intersection LOS:	B
Intersection Capacity Utilization	28.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 151: Kingwood Dr. & High Valley



Lane Group	ø2	ø15
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

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2020 Left-Turn Prohibition  
154: Mills Branch

PM Peak Hour



Lane Group	EBL	EBR	NWL	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations										
Volume (vph)	0	0	0	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt										
Flt Protected										
Satd. Flow (prot)	0	0	0	0	0	0	0	0	0	0
Flt Permitted										
Satd. Flow (perm)	0	0	0	0	0	0	0	0	0	0
Right Turn on Red	Yes			Yes	Yes		Yes	Yes		Yes
Satd. Flow (RTOR)										
Link Speed (mph)	30		30			40			30	
Link Distance (ft)	8307		71			1448			286	
Travel Time (s)	188.8		1.6			24.7			6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0	0	0	0	0
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	0	0	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0		0			0			0	
Link Offset(ft)	0		0			0			0	
Crosswalk Width(ft)	16		16			16			16	
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15		9	15		9
Turn Type										
Protected Phases										
Permitted Phases										
Minimum Split (s)										
Total Split (s)										
Total Split (%)										
Maximum Green (s)										
Yellow Time (s)										
All-Red Time (s)										
Lost Time Adjust (s)										
Total Lost Time (s)										
Lead/Lag										
Lead-Lag Optimize?										
Act Effect Green (s)										
Actuated g/C Ratio										
v/c Ratio										
Control Delay										
Queue Delay										
Total Delay										
LOS										
Approach Delay										
Approach LOS										

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Intersection Summary

Area Type: Other

Cycle Length: 3

Actuated Cycle Length: 3

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

Natural Cycle: 40

Control Type: Pretimed

Maximum v/c Ratio: 0.00

Intersection Signal Delay: 0.0

Intersection LOS: A

Intersection Capacity Utilization 0.0%

ICU Level of Service A

Analysis Period (min) 15








Splits and Phases: 154: Mills Branch

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2020 Left-Turn Prohibition  
157: US 59 NBFR

PM Peak Hour

							
Lane Group	NBU	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	<b>A</b>	<b>B</b>					
Volume (vph)	246	2209	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.76	1.00	1.00	1.00	1.00	1.00
Frt							
Flt Protected	0.950						
Satd. Flow (prot)	1770	8494	0	0	0	0	0
Flt Permitted	0.950						
Satd. Flow (perm)	1770	8494	0	0	0	0	0
Link Speed (mph)		55			30	55	
Link Distance (ft)		6159			362	365	
Travel Time (s)		76.4			8.2	4.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	302	2713	0	0	0	0	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	302	2713	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Left	Left	Right
Median Width(ft)		12			12	0	
Link Offset(ft)		0			0	0	
Crosswalk Width(ft)		16			16	16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		9	15		15	9
Sign Control		Free			Stop	Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	50.1%
Analysis Period (min)	15
	ICU Level of Service A

2020 Left-Turn Prohibition  
159: Russel Palmer & Northpark Dr.

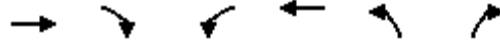
PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø2	ø4
Lane Configurations								
Volume (vph)	0	0	139	1170	158	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Storage Length (ft)		0	150		0	0		
Storage Lanes		0	1		1	0		
Taper Length (ft)			25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00		
Fr <sub>t</sub>								
Fl <sub>t</sub> Protected			0.950		0.950			
Satd. Flow (prot)	0	0	1770	3539	1770	0		
Fl <sub>t</sub> Permitted			0.950		0.950			
Satd. Flow (perm)	0	0	1770	3539	1770	0		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)								
Link Speed (mph)	45			45	30			
Link Distance (ft)	116			2724	80			
Travel Time (s)	1.8			41.3	1.8			
Peak Hour Factor	0.92	0.92	0.82	0.96	0.78	0.92		
Growth Factor	113%	113%	113%	113%	113%	113%		
Adj. Flow (vph)	0	0	192	1377	229	0		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	0	192	1377	229	0		
Enter Blocked Intersection	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Left	Left	Right		
Median Width(ft)	12			12	12			
Link Offset(ft)	0			0	0			
Crosswalk Width(ft)	16			16	16			
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)		9	15		15	9		
Number of Detectors			1	2	1			
Detector Template			Left	Thru	Left			
Leading Detector (ft)			20	100	20			
Trailing Detector (ft)			0	0	0			
Detector 1 Position(ft)			0	0	0			
Detector 1 Size(ft)			20	6	20			
Detector 1 Type			Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel								
Detector 1 Extend (s)			0.0	0.0	0.0			
Detector 1 Queue (s)			0.0	0.0	0.0			
Detector 1 Delay (s)			0.0	0.0	0.0			
Detector 2 Position(ft)				94				
Detector 2 Size(ft)				6				
Detector 2 Type				Cl+Ex				
Detector 2 Channel								
Detector 2 Extend (s)				0.0				
Turn Type			custom	NA	NA			
Protected Phases				6	8		2	4
Permitted Phases			1					

2020 Left-Turn Prohibition  
159: Russel Palmer & Northpark Dr.

PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø2	ø4
Detector Phase			1	6	8			
Switch Phase								
Minimum Initial (s)			5.0	15.0	5.0		15.0	5.0
Minimum Split (s)			11.3	21.3	11.6		21.3	11.3
Total Split (s)			24.0	119.0	31.0		95.0	31.0
Total Split (%)			16.0%	79.3%	20.7%		63%	21%
Maximum Green (s)			18.0	113.0	25.0		89.0	25.0
Yellow Time (s)			4.0	4.0	4.0		4.0	4.0
All-Red Time (s)			2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)			0.0	0.0	0.0			
Total Lost Time (s)			6.0	6.0	6.0			
Lead/Lag			Lead				Lag	
Lead-Lag Optimize?			Yes				Yes	
Vehicle Extension (s)			3.0	3.0	3.0		3.0	3.0
Recall Mode			None	C-Max	Max		C-Max	None
Act Effect Green (s)			17.8	113.0	25.0			
Actuated g/C Ratio			0.12	0.75	0.17			
v/c Ratio			0.92	0.52	0.78			
Control Delay			108.5	8.3	17.6			
Queue Delay			111.0	0.0	0.0			
Total Delay			219.5	8.3	17.6			
LOS			F	A	B			
Approach Delay				34.1	17.6			
Approach LOS				C	B			

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	25 (17%), Referenced to phase 2:EBT and 6:, Start of Green
Natural Cycle:	150
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.18
Intersection Signal Delay:	32.0
Intersection LOS:	C
Intersection Capacity Utilization	56.4%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 159: Russel Palmer & Northpark Dr.



2020 Left-Turn Prohibition  
161: Northpark Dr.

PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕				
Volume (vph)	23	1930	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt						
Flt Protected		0.999				
Satd. Flow (prot)	0	3536	0	0	0	0
Flt Permitted		0.999				
Satd. Flow (perm)	0	3536	0	0	0	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		2834	122		71	
Travel Time (s)		42.9	1.8		1.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	28	2371	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	2399	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	109.2%
Analysis Period (min)	15
	ICU Level of Service H

2020 Left-Turn Prohibition  
162: Northpark Dr.

PM Peak Hour



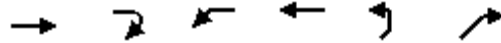
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↘	
Volume (vph)	0	0	0	1328	23	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	0	0	3539	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	3539	1770	0
Link Speed (mph)	45			30	30	
Link Distance (ft)	2842			116	71	
Travel Time (s)	43.1			2.6	1.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	1631	28	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	1631	28	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Yield	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	51.5%
Analysis Period (min)	15
	ICU Level of Service A

2020 Left-Turn Prohibition  
163: Northpark Dr.

PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations				↑↑		↑↑
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	0.88
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	3539	0	3278
Flt Permitted						
Satd. Flow (perm)	0	0	0	3539	0	3278
Link Speed (mph)	30			45	45	
Link Distance (ft)	1030			1613	1035	
Travel Time (s)	23.4			24.4	15.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			40	40	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			40	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15		15	9
Sign Control	Free			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0% ICU Level of Service A
Analysis Period (min)	15

2020 Left-Turn Prohibition  
164: Northpark Dr.

PM Peak Hour



Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations			↑↑			↑↑
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	3539	0	0	3539
Flt Permitted						
Satd. Flow (perm)	0	0	3539	0	0	3539
Link Speed (mph)	40		40			40
Link Distance (ft)	609		2651			576
Travel Time (s)	10.4		45.2			9.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0%
Analysis Period (min)	15
	ICU Level of Service A





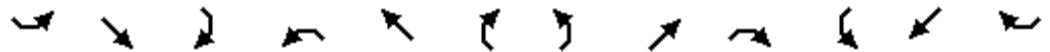
2020 Left-Turn Prohibition  
 165: Northpark Dr. & Rock Springs

PM Peak Hour

Lane Group	ø1	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	1	6
Permitted Phases		

2020 Left-Turn Prohibition  
165: Northpark Dr. & Rock Springs

PM Peak Hour

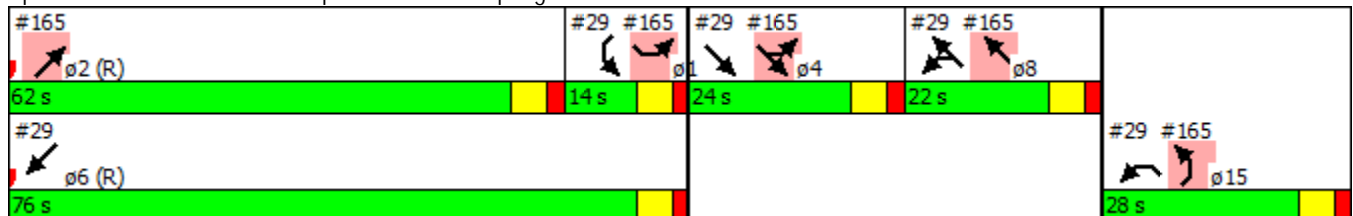


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1 4	4			8			15	2			
Switch Phase												
Minimum Initial (s)		5.0			5.0		5.0	4.0				
Minimum Split (s)		22.0			21.0		11.0	18.0				
Total Split (s)		24.0			22.0		28.0	62.0				
Total Split (%)		16.0%			14.7%		18.7%	41.3%				
Maximum Green (s)		18.0			16.0		22.0	56.0				
Yellow Time (s)		4.0			4.0		4.0	4.0				
All-Red Time (s)		2.0			2.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0		0.0	0.0				
Total Lost Time (s)		6.0			6.0		6.0	6.0				
Lead/Lag		Lead			Lag			Lead				
Lead-Lag Optimize?		Yes			Yes			Yes				
Vehicle Extension (s)		3.0			3.0		3.0	3.0				
Recall Mode		None			Max		None	C-Max				
Walk Time (s)		5.0			5.0			5.0				
Flash Dont Walk (s)		11.0			10.0			7.0				
Pedestrian Calls (#/hr)		0			0			0				
Act Effct Green (s)	18.4	7.6			26.4		16.4	67.2				
Actuated g/C Ratio	0.12	0.05			0.18		0.11	0.45				
v/c Ratio	0.06	0.23			0.16		0.68	0.57				
Control Delay	19.6	31.6			42.6		81.6	33.7				
Queue Delay	0.0	0.0			0.0		0.0	0.0				
Total Delay	19.6	31.6			42.6		81.6	33.7				
LOS	B	C			D		F	C				
Approach Delay		28.6			42.6			39.9				
Approach LOS		C			D			D				

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	45 (30%), Referenced to phase 2:NET and 6:, Start of Green
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	39.6
Intersection LOS:	D
Intersection Capacity Utilization:	46.7%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 165: Northpark Dr. & Rock Springs



2020 Left-Turn Prohibition  
 165: Northpark Dr. & Rock Springs

PM Peak Hour

Lane Group	ø1	ø6
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	4.0
Minimum Split (s)	11.0	18.0
Total Split (s)	14.0	76.0
Total Split (%)	9%	51%
Maximum Green (s)	8.0	70.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	C-Max
Walk Time (s)		5.0
Flash Dont Walk (s)		7.0
Pedestrian Calls (#/hr)		0
Act Effect Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

2020 Left-Turn Prohibition  
168: Kings Crossing

PM Peak Hour



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations					↕↕			↕↕			↕↕	
Volume (vph)	0	0	0	31	1254	273	134	64	0	0	269	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	0.95	0.95
Frt					0.974						0.976	
Flt Protected					0.999			0.968				
Satd. Flow (prot)	0	0	0	0	3444	0	0	3426	0	0	3454	0
Flt Permitted					0.999			0.968				
Satd. Flow (perm)	0	0	0	0	3444	0	0	3426	0	0	3454	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					26						12	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		963			931			270			813	
Travel Time (s)		16.4			15.9			6.1			18.5	
Peak Hour Factor	0.92	0.92	0.92	0.78	0.96	0.95	0.84	0.80	0.92	0.92	0.76	0.69
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	45	1476	325	180	90	0	0	400	77
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1846	0	0	270	0	0	477	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2				2
Detector Template				Left	Thru		Left	Thru				Thru
Leading Detector (ft)				20	100		20	100				100
Trailing Detector (ft)				0	0		0	0				0
Detector 1 Position(ft)				0	0		0	0				0
Detector 1 Size(ft)				20	6		20	6				6
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex				Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0		0.0	0.0				0.0
Detector 1 Queue (s)				0.0	0.0		0.0	0.0				0.0
Detector 1 Delay (s)				0.0	0.0		0.0	0.0				0.0
Detector 2 Position(ft)					94			94				94
Detector 2 Size(ft)					6			6				6
Detector 2 Type					Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0				0.0
Turn Type				Prot	NA		Prot	NA				NA
Protected Phases				15	2		14	4				8
Permitted Phases												
Detector Phase				15	2		14	4				8
Switch Phase												
Minimum Initial (s)				5.0	4.0			5.0				5.0

2020 Left-Turn Prohibition  
168: Kings Crossing

PM Peak Hour

Lane Group	ø1	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	1	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	4.0

2020 Left-Turn Prohibition  
168: Kings Crossing

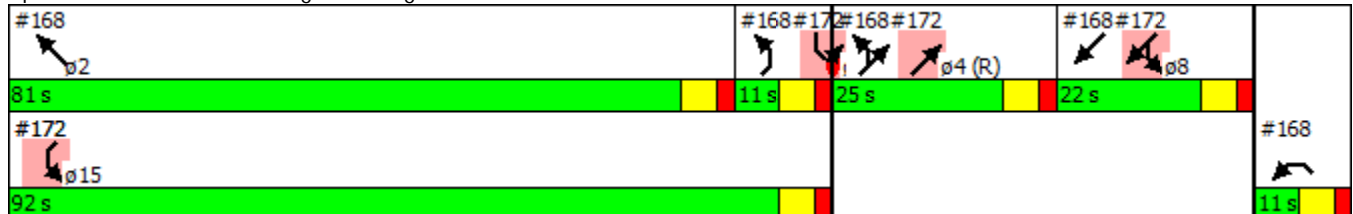
PM Peak Hour

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Minimum Split (s)				11.0	17.0			22.0			22.0	
Total Split (s)				11.0	81.0			25.0			22.0	
Total Split (%)				7.3%	54.0%			16.7%			14.7%	
Maximum Green (s)				5.0	75.0			19.0			16.0	
Yellow Time (s)				4.0	4.0			4.0			4.0	
All-Red Time (s)				2.0	2.0			2.0			2.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					6.0			6.0			6.0	
Lead/Lag					Lead			Lead			Lag	
Lead-Lag Optimize?					Yes			Yes			Yes	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Recall Mode				None	Max			C-Max			None	
Walk Time (s)					4.0			5.0			4.0	
Flash Dont Walk (s)					7.0			11.0			12.0	
Pedestrian Calls (#/hr)					0			0			0	
Act Effect Green (s)					97.0			19.0			16.0	
Actuated g/C Ratio					0.65			0.13			0.11	
v/c Ratio					12.50dr			0.62			1.26	
Control Delay					352.2			26.3			186.7	
Queue Delay					0.0			0.4			4.2	
Total Delay					352.2			26.7			190.8	
LOS					F			C			F	
Approach Delay					352.2			26.7			190.8	
Approach LOS					F			C			F	

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 0 (0%), Referenced to phase 4:NETL, Start of Green  
 Natural Cycle: 145  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.82  
 Intersection Signal Delay: 288.6      Intersection LOS: F  
 Intersection Capacity Utilization 83.5%      ICU Level of Service E  
 Analysis Period (min) 15  
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 168: Kings Crossing



2020 Left-Turn Prohibition  
168: Kings Crossing

PM Peak Hour







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Lane Group	ø1	ø6
Minimum Split (s)	11.0	17.0
Total Split (s)	11.0	92.0
Total Split (%)	7%	61%
Maximum Green (s)	5.0	86.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	Max
Walk Time (s)		4.0
Flash Dont Walk (s)		7.0
Pedestrian Calls (#/hr)		0
Act Effect Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

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2020 Left-Turn Prohibition  
171: Lake Houston Parkway

PM Peak Hour

						
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations		↑↑				↑↑
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	0.88
Frt						
Flt Protected						
Satd. Flow (prot)	0	3539	0	0	0	3278
Flt Permitted						
Satd. Flow (perm)	0	3539	0	0	0	3278
Link Speed (mph)		40	40		40	
Link Distance (ft)		568	1309		1311	
Travel Time (s)		9.7	22.3		22.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		120	120		120	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Free	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	0.0%			ICU Level of Service A		
Analysis Period (min)	15					



2020 Left-Turn Prohibition  
172: Kings Crossing & Lake Houston Parkway

PM Peak Hour



Lane Group	SBL2	SBL	SBR	NWL	NWR	NEL	NET	NER	SWL	SWT	SWR	ø2
Lane Configurations												
Volume (vph)	50	1414	33	0	0	0	148	25	248	64	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	0.95	0.97	0.95	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	
Frt		0.996					0.967					
Flt Protected		0.954								0.964		
Satd. Flow (prot)	0	3434	0	0	0	0	3422	0	0	3412	0	
Flt Permitted		0.954								0.964		
Satd. Flow (perm)	0	3434	0	0	0	0	3422	0	0	3412	0	
Right Turn on Red			Yes					Yes			Yes	
Satd. Flow (RTOR)		109					20					
Link Speed (mph)		40		40			30			30		
Link Distance (ft)		934		762			472			270		
Travel Time (s)		15.9		13.0			10.7			6.1		
Peak Hour Factor	0.73	0.86	0.69	0.92	0.92	0.92	0.88	0.52	0.80	0.64	0.92	
Growth Factor	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	113%	
Adj. Flow (vph)	77	1858	54	0	0	0	190	54	350	113	0	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1989	0	0	0	0	244	0	0	463	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)		24		0			0			0		
Link Offset(ft)		0		0			0			0		
Crosswalk Width(ft)		16		16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	15	9	15	9	15		9	15		9	
Number of Detectors	1	1					2		1	2		
Detector Template	Left	Left					Thru		Left	Thru		
Leading Detector (ft)	20	20					100		20	100		
Trailing Detector (ft)	0	0					0		0	0		
Detector 1 Position(ft)	0	0					0		0	0		
Detector 1 Size(ft)	20	20					6		20	6		
Detector 1 Type	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0					0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0					0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0					0.0		0.0	0.0		
Detector 2 Position(ft)							94			94		
Detector 2 Size(ft)							6			6		
Detector 2 Type							Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)							0.0			0.0		
Turn Type	Prot	NA					NA		Prot	NA		
Protected Phases	1	6					4		15 8	8		2
Permitted Phases												
Detector Phase	1	6					4		15 8	8		
Switch Phase												
Minimum Initial (s)	5.0	4.0					5.0			5.0		4.0

2020 Left-Turn Prohibition  
 172: Kings Crossing & Lake Houston Parkway

PM Peak Hour

Lane Group	ø15
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Growth Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	15
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0

2020 Left-Turn Prohibition  
 172: Kings Crossing & Lake Houston Parkway

PM Peak Hour

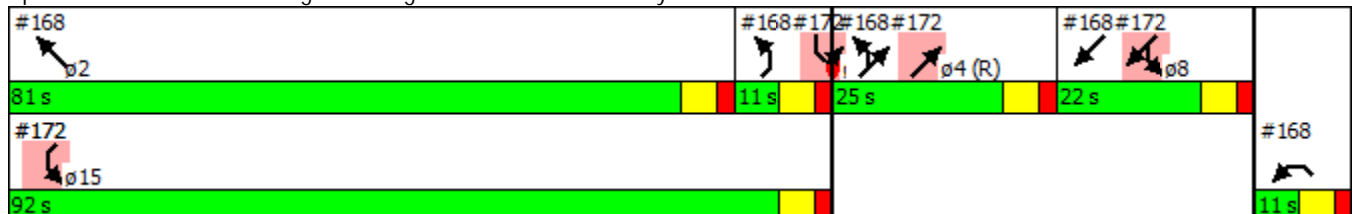


Lane Group	SBL2	SBL	SBR	NWL	NWR	NEL	NET	NER	SWL	SWT	SWR	ø2
Minimum Split (s)	11.0	17.0					22.0			22.0		17.0
Total Split (s)	11.0	92.0					25.0			22.0		81.0
Total Split (%)	7.3%	61.3%					16.7%			14.7%		54%
Maximum Green (s)	5.0	86.0					19.0			16.0		75.0
Yellow Time (s)	4.0	4.0					4.0			4.0		4.0
All-Red Time (s)	2.0	2.0					2.0			2.0		2.0
Lost Time Adjust (s)		0.0					0.0			0.0		
Total Lost Time (s)		6.0					6.0			6.0		
Lead/Lag	Lag						Lead			Lag		Lead
Lead-Lag Optimize?	Yes						Yes			Yes		Yes
Vehicle Extension (s)	3.0	3.0					3.0			3.0		3.0
Recall Mode	None	Max					C-Max			None		Max
Walk Time (s)		4.0					5.0			4.0		4.0
Flash Dont Walk (s)		7.0					11.0			12.0		7.0
Pedestrian Calls (#/hr)		0					0			0		0
Act Effect Green (s)		97.0					19.0			16.0		
Actuated g/C Ratio		0.65					0.13			0.11		
v/c Ratio		1.82					0.54			1.86dl		
Control Delay		393.1					61.2			168.9		
Queue Delay		0.0					0.0			0.1		
Total Delay		393.1					61.2			169.0		
LOS		F					E			F		
Approach Delay		393.1					61.2			169.0		
Approach LOS		F					E			F		

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 0 (0%), Referenced to phase 4:NETL, Start of Green  
 Natural Cycle: 145  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.82  
 Intersection Signal Delay: 324.6      Intersection LOS: F  
 Intersection Capacity Utilization 84.4%      ICU Level of Service E  
 Analysis Period (min) 15  
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 172: Kings Crossing & Lake Houston Parkway



2020 Left-Turn Prohibition  
172: Kings Crossing & Lake Houston Parkway

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PM Peak Hour

Lane Group	ø15
Minimum Split (s)	11.0
Total Split (s)	11.0
Total Split (%)	7%
Maximum Green (s)	5.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

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2020 Left-Turn Prohibition

PM Peak Hour

174:

	↑	↖	↙	↓	↘	↗
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations				↑↑		↗↗
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	0.88
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	3539	0	3278
Flt Permitted						
Satd. Flow (perm)	0	0	0	3539	0	3278
Link Speed (mph)	40			40	30	
Link Distance (ft)	610			450	549	
Travel Time (s)	10.4			7.7	12.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	80			80	80	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Free	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	0.0%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	ø2	ø15
Lane Configurations		
Volume (vph)		
Ideal Flow (vphp)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	2	15
Permitted Phases		

2020 Left-Turn Prohibition  
175: Rustic Woods

PM Peak Hour

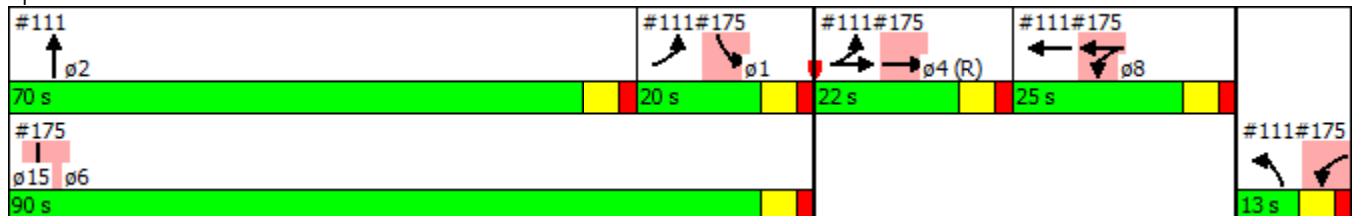


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		4		15	8					1	6	
Switch Phase												
Minimum Initial (s)		5.0			5.0					5.0	4.0	
Minimum Split (s)		22.0			25.0					20.0	21.0	
Total Split (s)		22.0			25.0					20.0	90.0	
Total Split (%)		14.7%			16.7%					13.3%	60.0%	
Maximum Green (s)		16.0			19.0					14.0	84.0	
Yellow Time (s)		4.0			4.0					4.0	4.0	
All-Red Time (s)		2.0			2.0					2.0	2.0	
Lost Time Adjust (s)		0.0			0.0					0.0	0.0	
Total Lost Time (s)		6.0			6.0					6.0	6.0	
Lead/Lag		Lead			Lag					Lag		
Lead-Lag Optimize?		Yes			Yes					Yes		
Vehicle Extension (s)		3.0			3.0					3.0	3.0	
Recall Mode		C-Max			None					None	Max	
Walk Time (s)		5.0			5.0							
Flash Dont Walk (s)		11.0			14.0							
Pedestrian Calls (#/hr)		0			0							
Act Effct Green (s)		16.0			32.0					12.6	84.0	
Actuated g/C Ratio		0.11			0.21					0.08	0.56	
v/c Ratio		0.51			0.38					0.46	0.67	
Control Delay		28.4			25.9					75.1	25.2	
Queue Delay		0.1			22.0					0.0	0.0	
Total Delay		28.5			47.9					75.1	25.2	
LOS		C			D					E	C	
Approach Delay		28.5			47.9						27.7	
Approach LOS		C			D						C	

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	20 (13%), Referenced to phase 4:EBTL, Start of Green
Natural Cycle:	150
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.10
Intersection Signal Delay:	30.7
Intersection LOS:	C
Intersection Capacity Utilization:	60.8%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 175: Rustic Woods

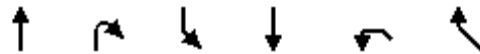




Lane Group	ø2	ø15
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	5.0
Minimum Split (s)	21.0	11.0
Total Split (s)	70.0	13.0
Total Split (%)	47%	9%
Maximum Green (s)	64.0	7.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	Max	None
Walk Time (s)	5.0	
Flash Dont Walk (s)	6.0	
Pedestrian Calls (#/hr)	0	
Act Effect Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

2020 Left-Turn Prohibition  
178: Lake Houston Parkway

PM Peak Hour



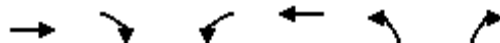
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations				↑↑		↑↑
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	0.88
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	3539	0	3278
Flt Permitted						
Satd. Flow (perm)	0	0	0	3539	0	3278
Link Speed (mph)	40			40	40	
Link Distance (ft)	3424			1043	3971	
Travel Time (s)	58.4			17.8	67.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	60			60	60	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0% ICU Level of Service A
Analysis Period (min)	15

2020 Left-Turn Prohibition  
185: Hamblen

PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	99	8	111	123	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	150		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.990					
Flt Protected			0.950			
Satd. Flow (prot)	1844	0	1770	1863	1863	0
Flt Permitted			0.950			
Satd. Flow (perm)	1844	0	1770	1863	1863	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	123			358	309	
Travel Time (s)	2.4			7.0	7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	122	10	136	151	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	132	0	136	151	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	20.1%
ICU Level of Service	A
Analysis Period (min)	15

2020 Left-Turn Prohibition  
188: Sorters & Northpark Dr.

PM Peak Hour



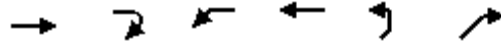
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			↔			↑
Volume (vph)	0	0	326	41	0	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.981			
Flt Protected						
Satd. Flow (prot)	0	0	1827	0	0	1863
Flt Permitted						
Satd. Flow (perm)	0	0	1827	0	0	1863
Link Speed (mph)	40		35			30
Link Distance (ft)	1484		5784			70
Travel Time (s)	25.3		112.7			1.6
Peak Hour Factor	0.92	0.92	0.82	0.64	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	449	72	0	200
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	521	0	0	200
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.5%
Analysis Period (min)	15
	ICU Level of Service A

2020 Left-Turn Prohibition  
189: Northpark Dr.

PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations				↑↑		↑↑
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	0.88
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	3539	0	3278
Flt Permitted						
Satd. Flow (perm)	0	0	0	3539	0	3278
Link Speed (mph)	40			40	30	
Link Distance (ft)	1488			3872	1484	
Travel Time (s)	25.4			66.0	33.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	113%	113%	113%	113%	113%	113%
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			30	50	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15		9	
Sign Control	Free			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0% ICU Level of Service A
Analysis Period (min)	15