APPENDIX B

B.5 SIGNAL RE-TIMING ANALYSIS OPERATIONAL REPORT

Signal Re-Timing Analysis Operational Report

Eastern Corridor Segment II/III PID 86462 Cincinnati, OH



Prepared for:



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1.0 Introduction

Traffic signal timing analyses were performed for 18 intersections within the Eastern Corridor Segment II/III study area in Cincinnati, Ohio. Signalized intersections were evaluated along SR 32, US 50, Valley Avenue, and Red Bank Road. The intersections are listed in **Table 1** and the location of the signalized intersections are shown in **Figure 1**.

Table 1: Study Intersections

#	Intersection	#	Intersection
1	SR-32 at Clough Pike	10	US-50 at Wooster Pike/Meadowlark Ln
2	SR-32 at Church St	11	US-50 at Watterson Rd
3	SR-32 at River Hills Dr/Round Bottom Rd	12	US-50 at Madisonville Rd
4	SR-32 at Ivy Hills PI	13	US-50 at Miami Rd.
5	SR-32 at Little Dry Run	14	US-50 at Pocahontas Ave
6	Round Bottom Rd at Valley Ave	15	US-50 at Mariemont Plaza Shopping Center
7	Church St/Newtown Rd at Valley Ave	16	US-50 at Miami Run/Spring Hill Dr
8	Wooster Rd at Red Bank Rd/Wooster Pike	17	US-50 at Walton Creek Rd
9	Red Bank Rd at Colbank Rd	18	US-50 at Newtown Rd



Figure 1: Study Intersections





The primary goals for this study were to optimize timing splits and increase the progression along the main arterials to reduce delay and congestion, primarily for weekday and commuter traffic patterns. Pre-study travel time runs were conducted in March 2018 and the Signal Timing Preliminary Assessment Report was submitted to ODOT in April 2018. The proposed weekday AM, Mid-Day, and PM peak period plans were then implemented in August 2018. Once the new signal timing plans were implemented, Stantec staff observed traffic operations and worked with local partners to adjust the signal timing plans, as necessary, to achieve the best possible results.

2.0 Inventory & Data Collection

2.1 Inventory

ODOT staff conducted an inspection of each controller to obtain cabinet information, controller information, communications, coordination, detection, and phasing data. The completed traffic signal timing inspection forms are provided in **Appendix A**. The existing geometric and signal layouts for each study intersection are attached in **Appendix B**.

2.2 Turing Movement Counts and Traffic Flow Characteristics

Turning movement counts were collected at all study intersections for a 24-hour period. The 24-hour turning movement counts between study intersections were averaged and graphed to show the traffic volumes throughout the day and their relationship to the time-of-day (TOD) schedule proposed. During the AM peak-hour, inbound traffic (northbound/westbound) into the Cincinnati area is heavier. During the PM peak-hour, it is flipped and outbound traffic (southbound/eastbound) is heavier. During the Mid-Day, traffic volumes are balanced without a significant imbalance in directional flow. The peak-hour turning movements and traffic flows throughout the day are attached in **Appendix C**.

3.0 Optimized Signal Timing Tables

The optimized timing schedules were initially based on the 24-hour counts and Synchro model results. The timing schedules were then adjusted based on field observations and feedback from the local agencies once the plans were implemented. The updated Signal Timing Tables are attached in **Appendix D**.





4.0 Results

4.1 Signal Operations Analysis

The Synchro Software (Version 10) was used for the signal operations analysis. Models were built for the weekday AM, Mid-Day, and PM peak hours. Comparison of the level-of-service and overall intersection control delay for the studied intersections for the pre-study and optimized timings are shown in **Table 2** through **Table 4**.

As shown in **Table 2** through **Table 4**, some of the intersections will operate at lower levels of service with higher delays. Most of intersections will operate better than existing. Under existing conditions, most intersections operate without any coordinated timings. While this may help to reduce delay at each individual intersection, the operations are less predictable and can inhibit progression along the main corridor.

The proposed timings improve coordination between all the signals within three separate zones. The coordinated timings may increase the delay to side street vehicles; however, the main street corridors will see more predictable and consistent operations, which will aid the progression of vehicles traveling through the system. The Synchro files are provided with the electronic submittal.

#	Intersection	Pre-S	Study	Optimized		Percent
#	Intersection	LOS	Delay	LOS	Delay	Change
1	SR-32 at Clough Pike	С	34.8	С	34.4	-1%
2	SR-32 at Church St	F	85.0	E	79.9	-6%
3	SR-32 at River Hills Dr/Round Bottom Rd	С	24.7	С	20.6	-17%
4	SR-32 at Ivy Hills Pl	В	11.4	А	10.3	-10%
5	SR-32 at Little Dry Run	С	21.9	С	20.8	-5%
6	Round Bottom Rd at Valley Ave	В	14.9	В	17.6	18%
7	Church St/Newtown Rd at Valley Ave	D	37.0	С	31.4	-15%
8	3 Wooster Rd at Red Bank Rd/Wooster Pike		15.1	В	18.9	25%
9	Red Bank Rd at Colbank Rd	Е	70.6	E	57.2	-19%
10	US-50 at Wooster Pike/Meadowlark Ln	В	14.3	В	13.1	-8%
11	US-50 at Watterson Rd	В	15.4	В	14.8	-4%
12	US-50 at Madisonville Rd	А	10.0	В	12.7	27%
13	US-50 at Miami Rd	А	7.6	А	5.6	-26%
14	US-50 at Pocahontas Ave	В	11.6	В	12.4	7%
15	US-50 at Mariemont Plaza Shopping Center	А	1.9	А	0.9	-53%
16	US-50 at Miami Run/Spring Hill Dr	В	15.0	В	15.8	5%
17	US-50 at Walton Creek Rd	В	13.6	В	14.5	7%
18	US-50 at Newtown Rd	С	22.1	С	33.7	52%

 Table 2: Weekday AM Level-of-Service (LOS) and Delay





ц		Pre-S	Study	Optir	Percent	
#			Delay	LOS	Delay	Change
1	SR-32 at Clough Pike	В	11.1	В	11.3	2%
2	SR-32 at Church St	С	23.3	С	20.3	-13%
3	SR-32 at River Hills Dr/Round Bottom Rd	С	24.3	В	19.2	-21%
4	SR-32 at Ivy Hills Pl	А	5.9	А	5.1	-14%
5	SR-32 at Little Dry Run	В	10.9	А	9.0	-17%
6	Round Bottom Rd at Valley Ave	В	11.6	В	10.9	-6%
7	Church St/Newtown Rd at Valley Ave	В	11.2	А	7.7	-31%
8	Wooster Rd at Red Bank Rd/Wooster Pike	В	12.3	В	17.7	44%
9	Red Bank Rd at Colbank Rd		18.3	В	13.1	-28%
10	US-50 at Wooster Pike/Meadowlark Ln	В	10.4	А	9.8	-6%
11	US-50 at Watterson Rd	В	11.7	В	11.2	-4%
12	US-50 at Madisonville Rd	А	7.6	В	11.8	55%
13	US-50 at Miami Rd	А	6.0	А	8.1	35%
14	US-50 at Pocahontas Ave	В	10.8	А	7.3	-32%
15	US-50 at Mariemont Plaza Shopping Center	А	4.9	А	3.7	-24%
16	US-50 at Miami Run/Spring Hill Dr	В	17.2	В	16.4	-5%
17	US-50 at Walton Creek Rd	В	16.2	В	13.7	-15%
18	US-50 at Newtown Rd	В	12.8	В	18.9	48%

Table 3: Weekday Mid-Day Level-of-Service (LOS) and Delay

Table 4: Weekday PM Level-of-Service (LOS) and Delay

#	Intersection	Pre-S	Study	Optimized		Percent
#			Delay	LOS	Delay	Change
1	SR-32 at Clough Pike	В	16.5	В	14.6	-12%
2	SR-32 at Church St	D	51.8	ш	56.8	10%
3	SR-32 at River Hills Dr/Round Bottom Rd	D	41.7	D	41.4	-1%
4	SR-32 at Ivy Hills Pl	В	10.2	А	6.9	-32%
5	SR-32 at Little Dry Run	В	18.8	В	13.6	-28%
6	Round Bottom Rd at Valley Ave	В	16.1	В	15.7	-2%
7	Church St/Newtown Rd at Valley Ave	В	19.7	В	19.0	-4%
8	3 Wooster Rd at Red Bank Rd/Wooster Pike		11.1	В	15.5	40%
9	Red Bank Rd at Colbank Rd		31.1	С	22.8	-27%
10	US-50 at Wooster Pike/Meadowlark Ln	В	18.1	С	22.0	22%
11	US-50 at Watterson Rd	С	24.8	С	25.3	2%
12	US-50 at Madisonville Rd	В	11.3	В	18.2	61%
13	US-50 at Miami Rd	А	7.8	В	10.7	37%
14	US-50 at Pocahontas Ave	В	18.5	В	15.9	-14%
15	US-50 at Mariemont Plaza Shopping Center	А	4.6	А	3.9	-15%
16	US-50 at Miami Run/Spring Hill Dr	В	15.5	В	14.6	-6%
17	US-50 at Walton Creek Rd	С	26.7	С	21.6	-19%
18	US-50 at Newtown Rd	В	15.7	В	18.8	20%





4.2 Travel Time Runs

Travel time runs were completed using the Tru-Traffic software. The overall network performance was indicated by measures of effectiveness (MOEs). Measures of effectiveness for the pre-study and optimized timings were compared for the analysis periods in terms of the following parameters:

- Travel Time (sec)
- Vehicle Delay (sec)
- Stopped Delay (sec)
- Stops/Vehicle
- Average Speed (mph)

The travel time runs were conducted separately for each of the three corridors within the Eastern Corridor Segment II/III study area. These corridors consist of the SR-32 corridor, US-50 corridor, and the Newtown 'Zig-Zag' corridor (consisting of Newtown Road, Valley Avenue, and Round Bottom Road). The three travel time run routes are shown in **Figure 2**. The SR-32 at Clough Pike intersection was not included in the SR-32 travel time runs due to it running free and distance from the other coordinated intersections. Travel time runs were not conducted through the two Red Bank Road intersections due to them not being part of the primary US-50 corridor travel pattern. The Tru-Traffic files are provided with the electronic submittal.



Figure 2: Travel Time Runs





The results of the SR-32 corridor travel time runs are shown in **Table 5.** Overall, the cumulative travel time, vehicle delay, stopped delay, and the number of stops were all reduced, and the average speed was increased. During the AM and PM peak periods, the peak direction of travel was significantly improved. The off-peak directions did not result in the same benefit, primarily due to the optimized progression intentionally programmed to serve the peak direction. The Mid-Day peak period had reductions in both the eastbound and westbound directions. The optimized travel time runs in the eastbound direction during the Mid-Day peak period resulted in no stops. Graphical results for the SR-32 corridor are shown in **Figure 3a** through **Figure 3e**.

Timing	Direction	Travel Time (sec)	Vehicle Delay (sec)	Stopped Delay (sec)	Stops	Average Speed (mph)	
	CUMULATIVE						
Pre-S	Study	172	45	39	1.1	24.7	
Optin	nized	155	28	19	0.6	26.8	
% Ch	nange	-10%	-38%	-51%	-45%	9%	
			AM Pea	k			
Pre-Study	EB	139	26	11.1	0.42	29.0	
Optimized	EB	139	26	11	0.39	29.1	
EB % (Change	0%	0%	-1%	-6%	0.3%	
Pre-Study	WB	203	62	50	1.2	21.0	
Optimized	WB	182	42	29	1.0	22.9	
WB % Change		-10%	-32%	-42%	-17%	9%	
		I	MID-DAY P	Peak			
Pre-Study	EB	142	29	15	0.8	28.3	
Optimized	EB	129	16	0	0	30.7	
EB % C	Change	-9%	-45%	-100%	-100%	8%	
Pre-Study	WB	170	29	45	1.3	23.8	
Optimized	WB	148	7	18	1.0	27.6	
WB % (Change	-13%	-76%	-60%	-23%	16%	
			PM Peal	k			
Pre-Study	EB	210	98	71	1.8	20.1	
Optimized	EB	156	43	13	0.5	25.9	
EB % 0	Change	-26%	-56%	-82%	-72%	29%	
Pre-Study	WB	167	26	44	1.0	25.9	
Optimized	WB	174	33	44	1.0	24.7	
WB % (Change	4%	27%	1%	0%	-5%	

Table	5: SR-32	Corridor	Cumulative	and Peak	Period	Analysis
IUDIC	0.01.02	00111001	Samalante		i chioù	Anulysis

Reduction No Change Increase









Pre-Study Optimized



AM Peak	-0 secs	0% change
Midday Peak	-13 secs	45% reduction
PM Peak	-55 secs	56% reduction

WESTBOUND		
AM Peak	-20 secs	32% reduction
Midday Peak	-22 secs	76% reduction
PM Peak	+7 secs	27% increase









EASTBOUND AM Peak -0.03 stops 6% reduction Midday Peak -0.8 stops 100% reduction PM Peak -1.3 stops 72% reduction

WESTBOUND		
AM Peak	-0.2 stops	17% reduction
Midday Peak	-0.3 stops	23% reduction
PM Peak	-0 stops	0% change











The results of the US-50 corridor travel time runs, which is broken into two different timing zones, are shown in **Table 6.** Overall, the cumulative travel time, vehicle delay, stopped delay, and the number of stops were all reduced, and the average speed was increased. Except for the westbound direction during the Mid-Day peak period, the optimized timings showed a benefit in every metric for both directions during three time periods studied. While travel time and vehicle delay increased for the westbound direction during the Mid-clay peak period, the number of stops and stopped delay decreased significantly indicating better progression of vehicles traveling through the system. Graphical results for the US-50 corridor are shown in **Figure 4a** through **Figure 4e**.

Timing	Direction	Travel Time (sec)	Vehicle Delay (sec)	Stopped Delay (sec)	Stops	Average Speed (mph)					
CUMULATIVE											
Pre-S	Study	382	102	66	3.0	23.2					
Optin	nized	349	69	38	2.0	26.3					
% Ch	nange	-9%	-32%	-42%	-33%	13%					
AM Peak											
Pre-Study	EB	336	51	31	1.8	26.2					
Optimized	EB	312	27	29	1.2	28.3					
EB % (Change	-7%	-47%	-6%	-33%	8%					
Pre-Study	WB	426	150	97	4.2	21.1					
Optimized WB		347	71	50	1.8	25.5					
WB % (Change	-19%	-53%	-48%	-57%	21%					
		1	MID-DAY P	Peak							
Pre-Study	EB	376	91	63	3.2	23.5					
Optimized	EB	318	33	3 24 1.		27.7					
EB % C	Change	-15%	-64%	-62%	-50%	18%					
Pre-Study	WB	385	109	62	3.8	22.8					
Optimized	WB	397	121	38	1.4	27.3					
WB % (Change	3%	11%	-39%	-63%	20%					
			PM Peal	k							
Pre-Study	EB	390	106	74	4.2	22.7					
Optimized	EB	380	95	56	1.6	23.5					
EB % (Change	-3%	-10%	-24%	-62%	4%					
Pre-Study	WB	380	104	68	3.5	23.1					
Optimized	WB	342	66	31	1.6	25.6					
WB % (Change	-10%	-37%	-54%	-54%	11%					

Table 6: US-50 Corridor Cumulative and Peak Period Analysis

Reduction No Change Increase









Pre-Study Optimized

AM Peak -24 secs 47% reduction Midday Peak -58 secs 64% reduction PM Peak -11 secs 10% reduction

WESTBOUND		
AM Peak	-79 secs	53% reduction
Midday Peak	+12 secs	11% increase
PM Peak	-38 secs	37% reduction













33% reduction

50% reduction

62% reduction

57% reduction

63% reduction

54% reduction









The results of the Newtown 'Zig-Zag' corridor travel time runs are shown in **Table 7.** Overall, the cumulative travel time, vehicle delay, stopped delay, and the number of stops were all reduced, and the average speed was increased. Except for the northbound direction where the average speed during the AM peak period decreased by a tenth of a mph and the stopped delay during the Mid-Day peak period stayed the same, the optimized timings showed a benefit in every metric for both directions during three time periods studied. Graphical results for the Newtown 'Zig-Zag' corridor are shown in **Figure 5a** through **Figure 5e**.

Timing	Direction	Travel Time (sec)	Vehicle Delay (sec)	Stopped Delay (sec)	Stops	Average Speed (mph)					
CUMULATIVE											
Pre-S	Study	236	80	76	3.0	19.3					
Optin	nized	211	54	48	2.0	21.8					
% Cł	nange	-11%	-33%	-37%	-33%	13%					
AM Peak											
Pre-Study	NB	237	63	70	2.6	19.2					
Optimized	NB	234	60	62	2.0	19.1					
NB % (Change	-1%	-5%	-11%	-23%	-1%					
Pre-Study	SB	273	134	114	3.1	16.5					
Optimized SB		216	76	76 59 1.6		21.5					
SB % (Change	-21%	-43%	-48%	-48%	30%					
		1	NID-DAY P	Peak							
Pre-Study	NB	203	28	39	2.7	21.9					
Optimized	NB	193	19	39	2.1	23.3					
NB % (Change	-5%	-32%	0%	-22%	6%					
Pre-Study	SB	209	70	48	1.9	21.5					
Optimized	SB	191	52	33	1.4	23.8					
SB % (Change	-9%	-26%	-31%	-26%	11%					
			PM Peal	k							
Pre-Study	NB	214	40	57	2.0	20.7					
Optimized	NB	187	12	30	1.6	24					
NB % (Change	-13%	-70%	-47%	-20%	16%					
Pre-Study	SB	281	142	126	3.5	16.1					
Optimized	SB	242	102	65	2.2	19.2					
SB % (Change	-14%	-28%	-48%	-37%	19%					

Table 7: Newtown 'Zig-Zag' Corridor Cumulative and Peak Period Analysis

Reduction No Change Increase



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Figure 5b: Newtown 'Zig-Zag'



SOUTHBOUND

AM Peak	-58 secs	43% reduction
Midday Peak	-18 secs	26% reduction
PM Peak	-40 secs	28% reduction





0% change





Pre-Study Optimized

NORTHBOUND		
AM Peak	-0.6 stops	23% reduction
Midday Peak	-0.6 stops	22% reduction
PM Peak	-0.4 stops	20% reduction

SOUTHBOUND		
AM Peak	-1.5 stops	48% reduction
Midday Peak	-0.5 stops	26% reduction
PM Peak	-1.3 stops	37% reduction







5.0 Monthly Variation in Travel Time

Traffic within the study area was observed to be highly variable throughout the year. This is in part due to the corridors being at or near capacity, seasonal outdoor recreational opportunities available within the study area, and seasonal school traffic. To get a better understanding of the variability in traffic, StreetLight travel time data was used to try to determine how travel times fluctuate throughout the year.

First, the StreetLight travel time data was compared to the field collected travel time data to see if it was producing similar results. Personal navigation-gps data on Tuesday/Wednesday/Thursday was used to obtain the average travel time for March 2015, 2016, and 2017 (the same month the field travel time runs were conducted).

The travel time data from StreetLight replicated the one-day field collected travel time data fairly well for the SR 32 and US 50 corridors. StreetLight did not replicate travel times for the 'zig-zag' through Newtown well. This was due to limited data which included no data or partial data for all three time periods (AM, Mid-Day, PM) for the northbound direction and two of the three time periods (AM, Mid-Day) for the southbound direction. **Table 8** summarizes the SR-32 results and **Table 9** summarizes the US-50 results comparing the one-day field collected travel time runs from March 2018 to the March 2015, 2016, 2017 StreetLight data.





-										
SP 22 Troval Time (accorde)	E	Eastbound	d	Westbound						
SR 32 Traver Time (seconds)	AM	Mid	РМ	AM	Mid	РМ				
Field Collected Data	139	142	210	203	170	167				
Streetlight Data	124	150	217	168	146	175				
Difference	-15	8	7	-35	-24	8				
Percent Difference from Field Data	-11%	6%	3%	-17%	-14%	5%				

Table 8: SR-32 Field Collected vs StreetLight Travel Time Comparison

Table 9: US-50 Field Collected vs StreetLight Travel Time Comparison

US 50 Travel Time (seconds)	E	Eastboun	d	Westbound				
US 50 Traver Time (seconds)	AM	Mid	РМ	AM	Mid	РМ		
Field Collected Data	336	376	390	426	385	380		
Streetlight Data	308	432	413	430	369	385		
Difference	-28	56	23	4	-16	5		
Percent Difference from Field Data	-8%	15%	6%	1%	-4%	1%		

Given that the StreetLight data replicated the filed collected travel time data, StreetLight data from 2015, 2016, and 2017 was then used to analyze the average travel times for each month to determine the variation of travel times throughout the year. For SR 32, except for the westbound PM peak period for the month of June, the variation in monthly travel times generally seems to make sense. For US 50, except for the eastbound mid-day peak period in which the travel time jumps around from month to month, the variation in monthly travel times also generally seems to make sense. Travel times for the AM peak period in the westbound direction and PM peak period in the eastbound direction increase until May, drop for the summer months, increase once school is back in session, and then begin to taper off as winter approaches. The monthly variation in travel times is attached in **Appendix E**. The StreetLight data's monthly variation in travel times runs, which were generally taken in November, represent times of the year with similar historic travel times.





6.0 Before and After Queue Results

As part of the initial Eastern Corridor data collection, queue data was collected at intersection approaches where long queues were known to occur. This data was collected in October of 2016. Once the optimized signal timing was implemented, queue data at the same locations was collected in February and March of 2019. The intersection approaches where queue data was collected are shown in **Table 10**.

#	Intersection	Intersection Approach Studied						
#	inter section	AM Peak-Hour	PM Peak-Hour					
2	SR-32 at Church St	SR 32 WB Church St NB	SR 32 EB Church St NB Church St SB					
3	SR-32 at River Hills Dr/Round Bottom Rd	SR 32 WB	SR 32 EB Round Bottom Rd SB					
5	SR-32 at Little Dry Run	SR 32 WB	SR 32 EB					
9	Red Bank Rd at Colbank Rd	Red Bank Rd NB Colbank Rd WB						
10	US-50 at Wooster Pike/Meadowlark Ln		US 50 EB					
18	US-50 at Newtown Rd	Newtown Rd NB	US 50 WB Newtown Rd NB					

Table 10: Queue Study Intersection Approaches

Maximum queue data was recorded every five minutes for an hour and a half period during the AM and PM peak periods. The raw data is attached in **Appendix F**. For the most part, the maximum queues stayed consistent between the before and after studies. In many cases, the change in the maximum queue is more a function of the demand over a short period of time being greater than the capacity of a single-lane approach as opposed to the signal timing. For example, the maximum queue on westbound US 50 approaching the Wooster Pike/Meadowlark Lane intersection during the PM peak period increased by four vehicles (100 feet) from the before to the after studies. However, the queues dissipate much faster in the after study indicating that once the US 50 approach drops below capacity, vehicles flow much more efficiently through the intersection.

The results of the AM peak period before and after queue study are shown in **Table 11** and the results of the PM peak period before and after queue study are shown in **Table 12**. In addition, the corresponding approach's pre-study and optimized timings delay calculated by the Synchro Software (Version 10) in the Signal Operations Analysis section of this report is also displayed in the tables. It should be noted that the queue data represents two data points collected almost two and a half years apart. Reported increases or decreases could be the result of annual traffic variations, incidents in the area changing typical travel patterns, and/or general growth in traffic.





			Pre-Study				Optimized				Percent Change			
#	Intersection	Approach	Delay	50th %tile Queue (veh)	95th %tile Queue (veh)	Max Queue (veh)	Delay	50th %tile Queue (veh)	95th %tile Queue (veh)	Max Queue (veh)	Delay	50th %tile Queue (veh)	95th %tile Queue (veh)	Max Queue (veh)
2 SR-32 at Church St	SR 32 WB	70.7	-1	-1	64 ¹	85.2	-1	1-	64 ¹	21%	0%	0%	0%	
	SR-32 at Church St	Church St NB	181.5	20	50	50	130.8	27	39	46	-28%	35%	-22%	-8%
3	SR-32 at River Hills Dr/ Round Bottom Rd	SR 32 WB	21.7	12	31	34	18.5	22	45	46	-15%	83%	45%	35%
5	SR-32 at Little Dry Run	SR 32 WB	18.7	15	19	19	14.4	14	23	25	-23%	-7%	23%	32%
0	Pod Ponk Dd at Colbonk Dd	Red Bank Rd NB	138.4	21	24	25	99.6	18	24	26	-28%	-14%	0%	4%
э	Red Bank Ro at Colbank Ro	Colbank Rd WB	27.7	13	21	24	31.7	15	22	23	14%	15%	5%	-4%
18	US-50 at Newtown Rd	Newtown Rd NB	21.9	18	24	25	44.7	16	18	20	104%	-11%	-25%	-20%

Table 11: Before and After Queue Study Results - AM Peak-Hour

1. The maximum queue extends past the Round Bottom Road intersection. The distance between intersections was assumed as the maximum queue. 50th and 95th percentile queues could not be calculated.

			Pre-Study				Optimized				Percent Change			
#	Intersection	Approach	Delay	50th %tile Queue (veh)	95th %tile Queue (veh)	Max Queue (veh)	Delay	50th %tile Queue (veh)	95th %tile Queue (veh)	Max Queue (veh)	Delay	50th %tile Queue (veh)	95th %tile Queue (veh)	Max Queue (veh)
		SR 32 EB	47.7	70	80	96	52.3	22	47	48	10%	-69%	-41%	-50%
2	SR-32 at Church St	Church St NB	89.2	30	39	44	87.2	11	26	29	-2%	-63%	-33%	-34%
		Church St SB	55.4	23	45	48	52.6	18	26	30	-5%	-22%	-42%	-38%
3	SR-32 at River Hills Dr/ Round Bottom Rd	SR 32 EB	47.6	_1 _	1 -	64 ¹	38.9	_1 _	-1	64 ¹	-18%	0%	0%	0%
5		Round Bottom Rd SB	49.5	27	40	42	57.1	34	45	46	15%	26%	13%	10%
5	SR-32 at Little Dry Run	SR 32 EB	19.1	19	25	32	10.1	12	23	25	-47%	-37%	-8%	-22%
10	US-50 at Wooster Pike/ Meadowlark Ln	US 50 EB	27.0	32	41	44	19.2	15	44	48	-29%	-53%	7%	9%
19	LIS 50 at Newtown Rd	US 50 WB	14.6	6	9	9	10.4	7	9	9	-29%	17%	0%	0%
10	00-00 at Newtown Ru	Newtown Rd NB	19.9	9	14	14	34.4	8	12	14	73%	-11%	-14%	0%

Table 12: Before and After Queue Study Results - PM Peak-Hour

1. The maximum queue extends past the Church Street intersection. The distance between intersections was assumed as the maximum queue. 50th and 95th percentile queues could not be calculated.

The AM and PM peak period maximum queues, displayed in number of vehicles, in **Table 11** and **Table 12** were converted to a queue length by multiplying the number of vehicles by 25 feet per vehicle. The before and after queue lengths are graphically displayed in **Appendix F**.

7.0 Estimated Signal Retiming Benefits

Delay savings, emissions savings, crash reductions, and fuel savings were estimated for each of the three corridors and a benefit to cost (b/c) ratio of performing the retiming analysis was calculated. The SR-32 corridor had a b/c ratio of 28:1, the US-50 corridor had a b/c ratio of 26:1, and the Newtown 'Zig-Zag' had a b/c ratio of 51:1. The estimated signal retiming benefits are shown on the following three pages. The Excel files are provided with the electronic submittal.





Estimated Annual Signal Retiming Benefits

Corridor: SR-32





Estimated Annual Signal Retiming Benefits

Corridor: US-50





Estimated Annual Signal Retiming Benefits

Corridor: Newtown 'Zig-Zag'





APPENDIX A



TRAFFIC SIGNAL TIMING INSPECTION FORM	
INTERSECTION NAME: SR32+ CLOUGH	
INSPECTED BY: VENTALE HUDCH	<u>7</u>
CABINET Type: W 332 336 TS-2 TS-1 Mounting: Dole Ground	٥
CONTROLLER Make & Model: SIEMALS 2070LATC Firmware Version: 05# 3.34.9	
Address: Offset Reference: Ethernet Port? XYes DNo Master? DYes DNo)
Time and Date Synced with Reference: Yes INO IN/A Adjusted Minutes Seconds	
COMMUNICATION Call Modem Hardwire I/C Fiber TBC None Brand:	r
Does the controller appear to be communicating with (a) the Master? \Box Yes \Box No \Box N/A \Box Unknown	
COORDINATION	
is the controller "IN STEP" with the System Cycle? □Yes □No □N/A □Unknown	
Is the controller operating: Coordinated @: Free@: Free@:	
List: 🗹 Cycle 🗹 Offset 🗹 Split 🗆 Cmd SRC 💷 PTN 💷 Day Plan 🗆 ACT Plan	
DETECTION Type: ARadar Uvideo Loops Other None Brand: ANALE TROALS	
Working Properly? Wes DNo; Issues Found	
Delay times set on the Loop, Radar, or Video detectors? □Yes □No 🎗 Unknown □On controller □N/A List times below	
PUSHBUTTONS Provided? Types Mino: Phase(s):	
Working Properly? Yes No NA:	
PHASING	
Ensure controller is set to prevent yellow ball traps? 🛛 Yes □No □Hardwired 🕅 N/A; Phase(s):	
List protected Left Turn movements: List split phases:	ÍN/A
TASKS Take pictures on each approach Take pictures in cabinet (both sides) Photo Numbers: Upload existing field data approach Image: transmission of the side size of the	
COMMENTS	
ENDAR - STOP BAR & ADVANCE DELEMBA ZOMI	
	01
Phase 1= Phase 5-	
Phase 2= $\mathcal{E}(S(32))$ Phase 6= (ω) $\mathcal{R}(22)$ OLA=	
Phase 3= Phase 7= OLC=	
Phase 4= Phase 8= NB (CLOUGH) OLD=	

l

TRAFFIC SIGNAL TIMING INSPECTION FORM	1
INTERSECTION NAME: SR-32 & NEWTOWN RD/CHURCH	- DATE: 8-21-177
INSPECTED BY: VENTER & HUNSIN	TIME: 10:40
CABINET Type: 🕅 332 🗆 336 🗀 TS-2 🗆 TS-1 Mounting: 🔅 🔲 Pole 🕅 Ground	
CONTROLLER Make & Model: SAFIE TRAN 170 R	
Address: Firmware Version: Ethernet Port? □Yes \No	Master? ZYes DNo
Time and Date Synced with Reference:	List phone number below
COMMUNICATION ARadio Cell Modem Hardwire I/C Fiber TBC None Brand:	erenced time
Does the controller appear to be communicating with (a) the Master? \Box Yes \Box No \Box N/A Δ Unknow	n
COORDINATION	
Is the controller "IN STEP" with the System Cycle? □Yes □No □N/A ØUnknown List	issues found below
Is the controller operating: Coordinated @: Free@: <u>/b;55</u>	
List. Devele Domset DSplit Cmd SRC DPTN Day Plan DACT Plan	r
DETECTION Type: Radar Video Loops Other None Brand: RENON DET	SYSTEM
Working Properly? Wes DNo; Issues Found	
Delay times set on the Loop, Radar, or Video detectors? \Box Yes \Box No μ Unknown \Box On controller \Box N	/A List times below
PUSHBUTTONS Provided? MYes \Box No; Phase(s): $2 - 4 - 6 - 8$	
Working Properly? ☑Yes □No □N/A;	issues found below
Ensure controller is set to prevent vellow ball trans2. Ever Day Day to the transfer of the	
List protected Left Turn movements:	
TASKS Take pictures on each approach Take pictures in cabinet (both sides) Image: Comments Upload existing field data or populate standard timing sheet COMMENTS MASTICE LOCATED IM CODMENTS	Numbers:
Phase 1= EBLT Phase 5= WBLT OLA=	
Phase 1= EBLT ASSOCIATED PHASES Phase 2= ωB $\omega B \Box T$ $OLA=$ Phase 2= ωB Phase 6= $\mathcal{B} B$ $OLB=$	
ASSOCIATED PHASESPhase 1= \mathcal{B} \mathcal{P} Phase 2= \mathcal{W} \mathcal{B} \mathcal{P} Phase 2= \mathcal{W} \mathcal{B} \mathcal{P} Phase 2= \mathcal{W} \mathcal{B} \mathcal{D} Phase 3= \mathcal{S} \mathcal{D} \mathcal{D} Phase 4= \mathcal{N} \mathcal{R} \mathcal{D}	
ASSOCIATED PHASESPhase 1= \mathcal{EB}_{T} Phase 5= \mathcal{WB}_{T} OLA=Phase 2= \mathcal{WB} Phase 6= \mathcal{EB} OLB=Phase 3= \mathcal{LB}_{T} Phase 6= \mathcal{EB} OLB=Phase 3= \mathcal{LB}_{T} Phase 7=OLC=Phase 4= \mathcal{NB}_{T} Phase 8= \mathcal{SB}_{T} OLD=PED 2= $\mathcal{NORTASIDE}$ PED 6= \mathcal{LONT}_{T} PED 6=	
ASSOCIATED PHASESPhase 1= \mathcal{EB}_{T} Phase 5= \mathcal{WB}_{T} $OLA=$ Phase 2= \mathcal{WB} Phase 6= \mathcal{EB} $OLB=$ Phase 3= \mathcal{SB}_{T} Phase 6= \mathcal{EB} $OLB=$ Phase 3= \mathcal{SB}_{T} Phase 7= $OLC=$ Phase 4= NB Phase 8= SB $OLD=$ PED2= $NORTASIDE$ PED $6=$ $SOUTH SIDE$ PED4= \mathcal{EAST} \mathcal{PED} $8=$ \mathcal{WEST} PED4= \mathcal{EAST} \mathcal{PED} $8=$ \mathcal{WEST}	

rev 05-30-17

TRAFFIC SIGNAL TIMING INSPECTION FOR	M
INTERSECTION NAME: _SR-33 + ROUMAD REFAIL AUG	LUL DATE: Q-DI-LD
INSPECTED BY: NENTAV + 1-10154	
Control 1990 A 552 C 556 C 15-2 C 15-1 Mounting: C Pole A Ground	
Address: 4	n:
Time and Date Syncod with Deference:	No Master? 🗆 Yes 🖄 No
COMMUNICATION Vin Reference: LiYes LiNo DN/A DAdjusted Minutes	Seconds Z
Does the controller appear to be communicating with (a) the starting of the starting with (a) the starting of the starting with (a) the starting of the starting with (b) the starting of the starting with (b) the starting of the starting o	NOM
\square is controlled appear to be communicating with (a) the Master? \square Yes \square No \square N/A \square Unknow	own
COORDINATION	
Is the controller "IN STEP" with the System Cycle? \Box Yes \Box No \Box N/A \blacksquare Unknown	ist issues found below
List: Cycle Offset Osplit Ocad Spc Opravil Data in Cycle Offset Osplit	_ 🕅 Unknown
Long Ske Longer Light Light Ske Lipin Liday Plan LiACT Plan	
DETECTION Type: Radar Video Loops Other None Brand: <u>HontidSTAN</u>	+ REHO
Working Properly? XYes DNo; Issues Found	
Delay times set on the Loop, Radar, or Video detectors? □Yes □No 文Unknown □On controller □	N/A List times below
PUSHBUTTONS Provided? Provided?	
Working Properly? □Yes □No □N/A;	List issues found below
Working Properly? Yes No N/A; PHASING Ensure controller is set to prover the last of the maximum of the last of th	List issues found below
Working Properly? Yes No N/A; PHASING Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s): List protected Left Turn movements:	List issues found below
Working Properly? □Yes □No □N/A; PHASING Ensure controller is set to prevent yellow ball traps? Yes □No □Hardwired □N/A; Phase(s): List protected Left Turn movements: List split phases:	List issues found below
Working Properly? Yes No N/A; PHASING Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s): List protected Left Turn movements:	List issues found below
Working Properly? Yes No N/A; PHASING Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s):	List issues found below N/A Doto Numbers: 166 - 896 7
Working Properly? Yes No N/A; PHASING Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s):	List issues found below N/A Doto Numbers: 166 - 8967
Working Properly? Yes No N/A; PHASING Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s):	List issues found below N/A Doto Numbers:
Working Properly? Yes No N/A; PHASING Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s):	List issues found below N/A Doto Numbers: 166 - 896 7
Working Properly? Yes PHASING Ensure controller is set to prevent yellow ball traps? List protected Left Turn movements: List split phases: List split phases: List split phases: List split phases: Marker List split phases: Strong Dupload existing field data or populate standard timing sheet Strong COMMENTS	List issues found below N/A pto Numbers: 166 - 896 7
Working Properly? Yes PHASING Ensure controller is set to prevent yellow ball traps? Yes No Hardwired Independent of the prevent yellow ball traps? Yes No Hardwired Independent of the prevent yellow ball traps? Yes No Hardwired Independent of the prevent yellow ball traps? Yes No Hardwired Independent of transformed transformed to prevent yellow ball traps? Yes Independent of transformed to prevent yellow ball traps? Yes Independent of transformed to prevent yellow ball traps? Yes Independent of transformed to prevent yellow ball traps? Yes Independent of transformed to prevent yellow ball traps? Yes Independent of transformed to prevent yellow ball traps? Yes Independent of transformed to prevent yellow ball traps? Yes Independent of transformed to prevent yellow ball traps? Yes Independent of transformed to prevent yellow ball traps? Yes Independent of transformed to prevent yellow ball traps? Yes Independent of transformed to prevent yellow ball traps? Yes Independent of transformed to prevent yellow ball traps? Yes Independent of transformed to prevent yellow ball traps? Yes Yes Independent of transformed	List issues found below N/A pto Numbers: 166 - 8967
Working Properly? □Yes □No □N/A; PHASING Ensure controller is set to prevent yellow ball traps? Yes □No □Hardwired □N/A; Phase(s): List protected Left Turn movements: List protected Left Turn movements: TASKS □Take pictures on each approach □Take pictures in cabinet (both sides) ↓ Phi □Upload existing field data or populate standard timing sheet	List issues found below N/A Doto Numbers: 966 - 8967
Working Properly? Yes PHASING Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s): List split phases: List split phases: List split phases: TASKS Take pictures on each approach Take pictures in cabinet (both sides) YPh Upload existing field data or populate standard timing sheet State COMMENTS	List issues found below N/A pto Numbers: A 66 - 8967
Working Properly? Yes No N/A; PHASING Ensure controller is set to prevent yellow ball traps? QYes No Hardwired N/A; Phase(s): List split phases: Market Display the pictures on each approach Display the pictures in cabinet (both sides) Phase COMMENTS COMMENTS Display the pictures A 2 PED OH RECAM Display the pictures Display the pictures Display the pictures Ensure controller is set to prevent yellow ball traps? Very pictures Very pictures Display the pictures on each approach Display the pictures in cabinet (both sides) Phase Display the pictures on each approach Display the pictures in cabinet (both sides) Phase Supplementary the pictures on each approach Display the pictures in cabinet (both sides) Supplementary the pictures on each approach Display the pictures on each approach Ensure the pictures on each approach Display the pictures on each a	List issues found below N/A pto Numbers: 166 - 896 7
Working Properly? □Yes □No □N/A; PHASING Ensure controller is set to prevent yellow ball traps? Yes □No □Hardwired □N/A; Phase(s):	List issues found below
Working Properly? □Yes □No □N/A; PHASING Ensure controller is set to prevent yellow ball traps? Yes □No □Hardwired □N/A; Phase(s):	List issues found below N/A pto Numbers: 166 - 8967
Working Properly? □Yes □No □N/A; PHASING Ensure controller is set to prevent yellow ball traps? Yes □No □Hardwired □N/A; Phase(s):	List issues found below
Working Properly? □Yes □No □N/A; PHASING Ensure controller is set to prevent yellow ball traps? Yes □No □Hardwired □N/A; Phase(s):	List issues found below
Working Properly? □Yes □No □N/A; PHASING Ensure controller is set to prevent yellow ball traps? Yes □No □Hardwired □N/A; Phase(s):	List issues found below

TRAFFIC SIGNAL TIMING INSPECTION FORM	<u>I</u>
INTERSECTION NAME: SR32 + TVY HILL ROAD	DATE: 8-21-17
INSPECTED BY: VEHITAK + HURSLIN	TIME: 0952
CABINET Type: □ 332 🖾 336 □ TS-2 □ TS-1 Mounting: 🖄 Pole □ Ground	
CONTROLLER Make & Model: Mc Caru 170 Quint ACIA Firmware Version: Address: Offset Reference: Ethernet Port? □Yes □No	Master? Types The
Time and Date Synced with Reference: \Box Yes \Box No \Box N/A Adjusted Minutes 52	List phone number below
COMMUNICATION Radio Cell Modem Hardwire I/C Fiber TBC None Brand:	renced time
Does the controller appear to be communicating with (a) the Master? \Box Yes \Box No \Box N/A \bigvee Unknown	
COORDINATION	
Is the controller "IN STEP" with the System Cycle? □Yes □No □N/A ☑UnknownList i Is the controller operating: Coordinated @: Free@: <u>/Do </u> List: □Cycle □Offset □Split □Cmd SRC □PTN □Day Plan □ACT Plan	ssues found below
DETECTION Type: Radar Video Loops Other None Brand: NOTHSTAR	- <u></u>
Delay times set on the Lean Dedan and it lands and a strength of the lean set	
\square Yes \square No \square Unknown \square On controller \square N/ \square	A List times below
PUSHBUTTONS Provided? XYes DNo; Phase(s):	
Working Properly? XYes No N/A; List	issues found below
List protected Left Turn movements:	N ul as da
	XIN/A
IASKS I ake pictures on each approach I Take pictures in cabinet (both sides) I Photo Image: Index pictures on each approach Image: Im	Numbers:
COMMENTS	/
	27
	0
ASSOCIATED PHASES	
Phase 1= OLA=	
Phase 3= Phase 7= OLB=	
Phase 4= NB Phase 8= OLD-	
PED 2= PED 6=	
PED 4= WESTSIDC PED 8=	

STATE OF OTION	C SIGNAL TIMING II	NSPECTION FORM	Λ
INTERSECTION NAME	: SP32+ INFLES	DRY RUM RD	DATE: 8-21-17
INSPECTED BY	: VENTRE + HURSH	••••••••••••••••••••••••••••••••••••••	TIME: $\bigcirc \Im / 5$
CABINET Type: 🗆 332 🕱 336 [□ TS-2 □ TS-1 Mounting:	Pole 🗆 Ground	
CONTROLLER Make & Model:_ Address: Of Time and Date Synced with Reference COMMUNICATION Radio Cell Does the controller appear to be com	$\frac{M_{C} CA_{IW}}{P} = \frac{70F}{21560}$ fset Reference: Econolite ASC-2 controller list 03C vice e: XYes No N/A A Modem Hardwire I/C Fiber A municating with (a) the Master?	<u>Fast or Slow from real of Slow from re GTBC □None □Brand: <u>2</u> או Yes או </u>	Master? Yes XNO List phone number below Seconds eferenced time Com winkliks/
COORDINATION Is the controller "IN STEP" with the So Is the controller operating: Coordina List: Cycle Coffset Split	γstem Cycle? □Yes ⅫNo □N/A ited @: Fre □Cmd SRC □PTN □Da	ロUnknown Lis ee@: <u> </u>	t issues found below X Unknown
DETECTION Type: □Radar Working Properly? XYes □No; Iss Delay times set on the Loop, Radar, c	□Video ¥Loops □Other □None ues Found or Video detectors? □Yes ¥No [Brand: <u>NORTHSTAN</u> □Unknown □On controller	N/A List times below
PUSHBUTTONS Provided	? 🗆 Yes 🕅 No; Phase(s):		
Working Properl	y? □Yes □No ₩N/A;	Li	st issues found below
PHASING			
Ensure controller is set to prevent ye	llow ball traps? LIYes XNo LIHa	Irdwired □N/A; Phase(s):	
List protected Left Turn movements.		_ List split pliases	AUN/A
TASKS	approach	abinet (both sides)	to Numbers:
\Box Upload existing field d	ata or populate standard timing she	eet <u>89</u> 7	1 + 8972
12-Lot-marie 92	COMMENTS		
p240 max re			
TIMEN HAS A TAG FROM 02+06 MIN ROJSKO BUMPH LOWITHIZO TO	4-2-12 BADLOOP MIN TO 40 From 20 8 10 Fron 15 - 410T	SLI 24 TIMILIC D B2+6 MAY RAIS, IN TAR TIMEN	ADJUSTMENTS FA TO 95 FRUN ?
	<u>\</u>		
Phase 1= (U.BLT	ASSOCIATED PHA Phase 5=	OLA=	
Phase 2= \mathcal{S}	Phase 6= (μ) B	OLB=	
Phase 3=	Phase 7=	OLC=	
Phase 4= NB	Phase 8=	OLD=	
PED 2=	PED 6=		1945
PED 4=	PED 8=		

STITE OF GUID	TRAFFIC SIGNAL TIMING INSPE	CTION FORM
INTERSE	CTION NAME: ROUMD BOTTOM + VA	DATE: 8-11-12
UF TRAIN	NSPECTED BY: VENTEL + HURSA	
CABINET Type: 🕅 3	32 □ 336 □ TS-2 □ TS-1 Mounting: □ □	
CONTROLLER Mal	Ka & Madali M ((In the 1 2 h C) and 10 cont	Ground
Address: 3	Offset Reference	Firmware Version:
Time and Date Synced w	vith Reference: Ves No 22 controller list 03C value	List phone number below
		VIINUTES Seconds
Does the controller appe	and to be communicating with (a) the Master? Dyor D	None LBrand: Encon
60000000000000000000000000000000000000		UN/A ZUNKNOWN
LOOKDINATION		
is the controller operation	With the System Cycle? UYes DNo DN/A XUnkno	Dwn List issues found below
List: Cycle Offset	t	
Working Property 2	Bradar □Video 翼Loops □Other □None Brand:	REND
Delay times set on the L	es 💷 No; Issues Found	
being times set on the Lt	Job, Radar, or video detectors? LiYes LiNo Dunknow	n \Box On controller \Box N/A List times below
PUSHBUTTONS	Provided?	
Wor	king Properly? □Yes □No ûN/A;	List issues found below
PHASING		
List protected Left Turn	o prevent yellow ball traps? XYes DNo DHardwired	N/A; Phase(s):
	List spli	t phases:N/A
TASKS□Take pictul□Upload exi	res on each approach	oth sides) ,
X/A A) an a	COMMENTS	
190 var on 0	6 DRTRETION	
		·
		- 14
Phase 1=	ASSOCIATED PHASES	014-
Phase 2= ND	Phase 6= SR	OLA=
Phase 3=	Phase 7=	OLC=
Phase 4= ETS	Phase 8=	OLD=
PED 2=	PED 6=	

TRAFFIC SIGNAL TIMING INSPECTION FORM	
INTERSECTION NAME: CHUDCH + VINLEY	_
INSPECTED BY: VEWTRIE + HURSIA TIME: 14126	
Mounting: Dele A Ground	
Address: Firmware Version:	
Time and Date Summer Letter a Construction of the Construction of)
Time and Date Synced with Reference: Yes No N/A Adjusted Minutes Seconds	
COMMUNICATION A Radio Cell Modem Hardwire I/C Fiber TBC None Brand: Checow	
Does the controller appear to be communicating with (a) the Master? \Box Yes \Box No \Box N/A \Box Unknown	
COORDINATION	
Is the controller "IN STEP" with the System Cycle? Yes No N/A Unknown List issues found below	
Is the controller operating: Coordinated @: Free@:Free@:Free@:Free@:	
List: Cycle Coffset Split Cmd SRC PTN Day Plan ACT Plan	
DETECTION Type: Badar Dvideo Milcons Dother Dillo on the Adde Till Top	
Working Property? WYes DNo: Issues Found	
Delay times set on the Loop, Radar, or Video detectors?	
PUSHBUTTONS Provided? [Yes DNo; Phase(s):	
Working Properly? Ares No N/A; List issues found below	
List protected Left Turn movements:	
List split phases:	N/A
TASKS Take pictures on each approach Take pictures in cabinet (both sides)	
\Box Upload existing field data or populate standard timing sheet $\frac{8965}{8965}$	
NO DOCH - HI DECENTS	
TO 42 46 DE DE RETION	
	2
Phase 1= SBLT ASSOCIATED PHASES	
Phase $2 = NB$ Phase $6 = CR$ OLA=	
Phase 3= Phase 7= OLC-	
Phase $4 = \mathcal{N} \mathcal{B}$ Phase $8 = \mathcal{E} \mathcal{D}$ OID=	
PED 2= E DASTSIDE PED 6= WESTSIDE	
PED 4= NORTHSING PED 8= SOUTH SIPK	

E INT	ERSECTION NAME:	DED BAWK #	LIDOSTKA	DATE 8.77
OFTRANS		PRE PININ V	worster	DATE: 0-23
	indi Leilo Di.			TIME: <u>1327</u>
CABINET Type:	332 336 1	rs-2 TS-1 Mou	nting: 🗌 Pole 🕅 Ground	
CONTROLLER	Make & Model: 2	CON ASC/25-210	90 Eirmucee M	
Address:	Offse	t Reference:	Ethernot Port?	ersion:
Time and Date Syn	ced with Reference	Econolite ASC-2 control		List phone number below
			A LXAdjusted Minutes	Seconds
Does the controllor		dem UHardwire !/C []	Fiber TBC None Brand	l:
boes the controller	appear to be commi	unicating with (a) the Mas	ter? 🗆 Yes 🖄 No 🖓 N/A 🗇 U	Inknown
COORDINATION			L ·	•
Is the controller "IN	STEP" with the Syste	em Cycle? □Yes □No Ì		List issues found by t
is the controller op	erating: Coordinated	1@:	Free@: 1350	
List: Cycle	Offset □Split [Dav Plan ACT Plan	
DETECTION	-)	14		\$
Monthing Descent 2	Type: KRadar	Video XLoops □Other [None Brand:	-
working Property?		Found		
Delay times set on 1	the Loop, Radar, or V	ideo detectors? □Yes □]No YUnknown DOn control	ler IN/A List times below
PUSHBUTTONS	Provided?	Yes No: Phase(s)		
	Working Properly?	¥es □No □N/A·		
PHASING				List issues found below
Ensure controller is	set to prevent yellov	v ball traps? 🛛 Yes 🗍 No		
List protected Left 1	urn movements:d	1,03	List split phases:	·
	pictures on each app	roach DTake picture	es in cabinet (both sides)	Photo Numbers:
	iu existing field data	or populate standard timi	ng sheet	876/ 8760
	S	COMM	ENTS	
del tak 1				
the face 1				
All Sal 1				
(the sal 1				
All Par 1				
(til) Sale 1				
All Sect 1				
(12) Jak 1				5
		ASSOCIATED	> PHASES	
Phase $1 = U \beta L T$		ASSOCIATED Phase 5=) PHASES	27 341+4 (LSI
Phase 1= $WBLT$ Phase 2= EBT Phase 3= NBJ	HRŮ T	ASSOCIATED Phase 5= Phase 6= WB TMA	DIA= MR ULA= MR ULA= FIR ULB= FIR ULB= FIR	T 3+1+4 (LS 1" T 3+2 (LS 12
Phase 1= $WBLT$ Phase 2= EBT Phase 3= NBL	HRŮ T	ASSOCIATED Phase 5= Phase 6= OB TUM Phase 7= NB TUM TO Phase 9=	$OPHASES = OLA = F_1 R R$ $OLA = F_1 R R$ $OLB = E R R$ $OLC = .$	27 3+1+4 (LSI 7 3+2 (LS12
TRAFFIC SIGNAL TIMING INSPECTION FO	RM			
---	---			
INTERSECTION NAME: RED BANK + COL RANK	DATE: 8/23/17			
INSPECTED BY: VENTRE + HURSH	тіме: 146°			
CABINET Type: 🗆 332 🗆 336 🗀 TS-2 💢 TS-1 / Mounting: 🗆 Pole 🛱 Ground				
CONTROLLER Make & Model: SCOM AS(25=2100 Firmware Vers	ion:			
Time and Date Synced with Poforonace	No Master? Yes No			
COMMUNICATION Radio Coll Modern Russie in the Radio Festor Slow	from referenced time			
Does the controller appear to be communicating with (a) the Master? \Box Ves XNo. \Box Vert				
COORDINATION	nown			
Is the controller "IN STEP" with the System Cycle?				
Is the controller operating: Coordinated @:	List issues found below			
List: Cycle Coffset Split Cmd SRC PTN Day Plan ACT Plan				
DETECTION Type: Radar Video Miloons Other None Brands Result				
Working Properly? Ares DNo; Issues Found				
Delay times set on the Loop, Radar, or Video detectors? □Yes □No □Unknown □On controller	□N/A List times below			
PUSHBUTTONS Provided? Provided?				
Working Properly? □Yes □No ⊠N/A;	List issues found below			
PHASING				
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s):				
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s): List protected Left Turn movements: List split phases:	ÅN/A			
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s): List protected Left Turn movements: List split phases:	hoto Numbers:			
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s): List protected Left Turn movements:	hoto Numbers:			
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired XN/A; Phase(s): List protected Left Turn movements: X List split phases: List split phases: TASKS Take pictures on each approach Take pictures in cabinet (both sides) X Upload existing field data or populate standard timing sheet COMMENTS	hoto Numbers:			
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired XN/A; Phase(s): List protected Left Turn movements: X List split phases: List split phases: TASKS Take pictures on each approach Take pictures in cabinet (both sides) X Upload existing field data or populate standard timing sheet COMMENTS	hoto Numbers:			
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired XN/A; Phase(s): List protected Left Turn movements: List split phases: TASKS Take pictures on each approach Take pictures in cabinet (both sides) Upload existing field data or populate standard timing sheet COMMENTS	Photo Numbers:			
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired XN/A; Phase(s): List protected Left Turn movements: List split phases: TASKS Take pictures on each approach Take pictures in cabinet (both sides) Upload existing field data or populate standard timing sheet COMMENTS	Photo Numbers:			
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s):	Photo Numbers:			
Ensure controller is set to prevent yellow ball traps? List protected Left Turn movements: List split phases: List split ph	Photo Numbers:			
Ensure controller is set to prevent yellow ball traps? List protected Left Turn movements: List split phases: TASKS Take pictures on each approach Take pictures in cabinet (both sides) Upload existing field data or populate standard timing sheet COMMENTS	Photo Numbers:			
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired (N/A; Phase(s):	Photo Numbers:			
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired (N/A; Phase(s):	Δ hoto Numbers:			
Ensure controller is set to prevent yellow ball traps? Yes List protected Left Turn movements: List split phases: TASKS □Take pictures on each approach □Take pictures in cabinet (both sides) □Upload existing field data or populate standard timing sheet COMMENTS Phase 1= SBLT (R.O.RD) Phase 5= OLA= WB R Phase 2= NR THAU (R.B. RD) Phase 6= CR THW RB. RD, OLB=	Photo Numbers: $ \frac{1}{(d_1 + d_2)} LS S $ $ \frac{1}{(col RAME)} $			
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired XN/A; Phase(s): List protected Left Turn movements: X List split phases: TASKS Take pictures on each approach Take pictures in cabinet (both sides) Upload existing field data or populate standard timing sheet COMMENTS Phase 1=	Photo Numbers: $(d_1 + d_2) + LS = \frac{1}{(Col Ramite)}$			
Ensure controller is set to prevent yellow ball traps? \Box Yes \Box No \Box Hardwired Δ N/A; Phase(s): List protected Left Turn movements: List split phases: TASKS \Box Take pictures on each approach \Box Take pictures in cabinet (both sides) Δ \Box Upload existing field data or populate standard timing sheet COMMENTS 	Photo Numbers: $(d_1 + d_2) LS = \frac{1}{(Coll RAME)}$			

TRAFFIC SIGNAL TIMING INSPECTION FORM INTERSECTION NAME:
COORDINATION Is the controller "IN STEP" with the System Cycle? □Yes □No AN/A □Unknown List issues found below Is the controller operating: Coordinated @: Free@:3/0 List issues found below List coordinated @: Delay Plan ACT Plan Delay times set on the Loop, Radar, or Video detectors? Other One Brand:
PUSHBUTTONS Provided? Ves No; Phase(s): Image: Constraint of the set of th
TASKS Take pictures on each approach Take pictures in cabinet (both sides) Delta Photo Numbers: Dupload existing field data or populate standard timing sheet 8969 - 8968 COMMENTS EV PALE-E-PT - SONEM 2000
Phase 1= WBLT Phase 5= OLA= NLRRT (PH3 LS)
Phase 2= EB Phase 6= ωR OLB=
Phase 3= Phase 7= OLC= .
Phase 4= 0.15 Phase 8= 11 {} OLD=
PED 4= PED 6=
PED 8= EAST SIDE

STATE OF OND	
IRAFFIC SIGNAL TIMING INSPECTION FORM	
INTERSECTION NAME: US-50 + WATTERSON DATE: 8123-1	17
INSPECTED BY: UFRITAK & HONSA TIME: 12:15	Phi
CABINET Type: 332 336 TS-2 TS-1 Mounting: Pole Ground	<u> </u>
CONTROLLER Make & Model: 2004, 2070 ATC Firmware Version:	
Address: Offset Reference: Ethernet Port? Yes No Master? Yes	 o
Time and Date Synced with Reference:	
COMMUNICATION Call Modem Hardwire I/C Fiber TBC None Brand:	
Does the controller appear to be communicating with (a) the Master? Yes No N/A Unknown	
COORDINATION	
Is the controller "IN STEP" with the System Cycle? 🛛 Yes 🗇 No 🗇 N/A 🗇 Unknown and the last issues found below	
Is the controller operating: Coordinated @: Free@: 12:36	
List: Cycle Offset Split Cmd SRC PTN Day Plan ACT Plan	
DETECTION Type: Radar Wideo Milcons Dother Diana Durit SN	
Working Properly? XiYes DNo; Issues Found	
Delay times set on the Loop, Radar, or Video detectors? Yes No Unknown Don controller DN/A List times below	
PLISHBUITTONS Provide 12 XK Fits of Plant A	
Working Property Wes LINo; Phase(s): (H-1) - + + + 6	
PHASING	
Ensure controller is set to prevent yellow ball traps? Types TNO THardwired MN(A: Phase(s);	
List protected Left Turn movements:	
	ĮNA
Upload existing field data as percented at a standard till in the second	
	·
054 PED OM SOUTASIDE 13 TURNIER 90°	
Environ Plice - P	
ZMUEICGENCY MEZZAPT = SOMEM 2000	
	3
ASSOCIATED PHASES	
Phase 2= FA DLA=	
Phase 3= Phase 7= OLB=	
Phase 4= SR Phase 8= NR OLD-	
PED 2= PED 6= NOQTISIDE	5
PED 4= WESTSIDE PED 8=	

TRAFFIC SIGNAL TIMING INSPECTION FORM	1
INTERSECTION NAME: US-TO + MAAISON VILLA. P.D.	DATE: 8-23-17
INSPECTED BY: VENTAGE + AVASA	TIME: 10:25
CABINET Type: 🗆 332 🗆 336 🗇 TS-2 💢 TS-1 Mounting: 🗆 Pole 🕱 Ground	
CONTROLLER Make & Model: Scond ASC/3-2100 Firmware Version: Address: Offset Reference:	Master? IYes ANO
	Seconds
Does the controller appear to be communicating with (a) the Master? \Box Yes \Box No Δ N/A \Box Unknown	
COORDINATION	
Is the controller "IN STEP" with the System Cycle? □Yes □No \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	issues found below □ Unknown
DETECTION Type: Radar Video Loops Other None Brand: DETECTOR SySTER	ــــ
Working Properly? Wes UNo; Issues Found	
Delay times set on the Loop, Radar, or Video detectors? \Box Yes \Box No \Box Unknown \Box On controller \Box N/	'A List times below
PUSHBUTTONS Provided? \square Yes \square No; Phase(s): $\cancel{\sigma}_2 - \cancel{\sigma}_6 - \cancel{\sigma}_6$	
Working Properly? ☐Yes □No □N/A;	issues found below
PHASING	
Ensure controller is set to prevent yellow ball traps? □Yes □No □Hardwired ☑N/A; Phase(s):	
Ensure controller is set to prevent yellow ball traps? \Box Yes \Box No \Box Hardwired $\widecheck{\Delta}$ N/A; Phase(s): List protected Left Turn movements: $\not / h_{}$ List split phases:	Ì\\/A
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s): List protected Left Turn movements: TASKS Take pictures on each approach Take pictures in cabinet (both sides) Photo Upload existing field data or populate standard timing sheet	Numbers:
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s): List protected Left Turn movements: TASKS Take pictures on each approach Take pictures in cabinet (both sides) Photo Upload existing field data or populate standard timing sheet	Numbers:
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired X/A; Phase(s): List protected Left Turn movements: H/A List split phases: TASKS Take pictures on each approach Take pictures in cabinet (both sides) Photo Upload existing field data or populate standard timing sheet COMMENTS - DRAWIMG POES MATCH LIMAT IS OM THE STAKET WITH	Numbers:
Ensure controller is set to prevent yellow ball traps? Yes □No □Hardwired △N/A; Phase(s): List protected Left Turn movements: H/A TASKS □Take pictures on each approach □Take pictures in cabinet (both sides) □Photo □Upload existing field data or populate standard timing sheet COMMENTS - DPAWIMUL POES Image: Approx 15 of THE STALLT WITH - OLB GOES TO YELLEW V5 SEC AFFIGN PH 8	Numbers:
Ensure controller is set to prevent yellow ball traps? Yes □No □Hardwired ▷N/A; Phase(s): List protected Left Turn movements: N/A TASKS □Take pictures on each approach □Take pictures in cabinet (both sides) □Photo □Upload existing field data or populate standard timing sheet	Numbers:
Ensure controller is set to prevent yellow ball traps? □Yes □No □Hardwired ØN/A; Phase(s): List protected Left Turn movements:	Numbers:
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s):	Numbers:
Ensure controller is set to prevent yellow ball traps? Yes No Hardwired N/A; Phase(s):	Numbers:
Ensure controller is set to prevent yellow ball traps? □Yes □No □Hardwired ∠N/A; Phase(s):	$P_{H} y_{H} = \sum_{LS \neq Ly}^{N/A}$
Ensure controller is set to prevent yellow ball traps? □Yes □No □Hardwired ØN/A; Phase(s):	$\frac{P_{H}D_{H}}{P_{H}U_{H}} \leq \frac{P_{H}D_{H}}{2} \leq \frac{P_{H}U_{H}}{2} \leq $
Ensure controller is set to prevent yellow ball traps? \Box Yes \Box No \Box Hardwired \Box N/A; Phase(s): List protected Left Turn movements: M/D	$\frac{P_{H}}{P_{H}} \frac{P_{H}}{P_{H}} \frac{P_{H}}{P_{$
Ensure controller is set to prevent yellow ball traps? \Box Yes \Box No \Box Hardwired $\widecheck{\Delta}$ N/A; Phase(s): List protected Left Turn movements: H/D_{-} List split phases: TASKS \Box Take pictures on each approach \Box Take pictures in cabinet (both sides) \Box Photo \Box Upload existing field data or populate standard timing sheet \Box \Box \Box Definition Policial product the standard timing sheet \Box \Box Definition Policial product the standard timing sheet \Box \Box Definition Policial product the standard timing sheet \Box \Box Definition Policial product the standard timing sheet \Box \Box Definition Policial product the standard timing sheet \Box \Box Definition Policial product the standard timing sheet \Box \Box Definition Policial product the standard timing sheet \Box \Box Definition Policial product the standard timing sheet \Box \Box Definition Policial product the standard timing sheet \Box \Box Definition Policial product the standard timing sheet \Box Definition Policial product the standard timi	$\frac{P_{1}+y_{1}+s}{LSH \rightarrow S}$
Ensure controller is set to prevent yellow ball traps? \Box Yes \Box No \Box Hardwired $\overleftarrow{B}N/A$; Phase(s): List protected Left Turn movements: $H/A_{-}_{-}_{-}_{-}_{-}_{-}_{-}_{-}_{-}_{-}$	$\frac{P_{1}}{P_{1}} = \frac{P_{1}}{P_{1}} + \frac{P_{1}}{P_{2}} + \frac{P_{1}}{P$

TRAFFIC SIGNAL TIMING INSPECTION FOR	RA
TOFTRAGE INTERSECTION NAME: USSO + MIAMI KA	DATE: 8-23-17
INSPECTED BY: Ventre + HUNSH	TIME: 0945 AM
CABINET Type: 332 336 TS-2 TS-1 Mounting: Pole Ground	
CONTROLLER Make & Model: SCON ASc/3-2100 Firmware Versio	n:
Address: Offset Reference: Ethernet Port? 🗆 Yes 🌶	No Master? 🗆 Yes 🕅 No
Time and Date Synced with Reference: \square Yes \square No \square N/A \square Adjusted Minutes -/	List phone number below Seconds <u>/ 3</u>
COMMUNICATION Radio Cell Modem Hardwire I/C Fiber TBC None Brand	om referenced time
Does the controller appear to be communicating with (a) the Master? \Box Yes \Box You \Box N/A \Box Unknown	own
Is the controller "IN STEP" with the Sustance of the Third The Target and the	
Is the controller operating: Coordinated \otimes	List issues found below
	_ 🗌 Unknown
\Box	
DETECTION Type: Radar Video Loops Other None Brand: DETECTOR	SYSTEMJ
Working Properly? AYes DNo; Issues Found	
Delay times set on the Loop, Radar, or Video detectors? \Box Yes XNo \Box Unknown \Box On controller [N/A List times below
Warking Description 2 The Third States	ECAL
PHASING	List issues found below
Ensure controller is set to provent vellew bell trave?	
List protected Left Turn movements:	
List protected Left Turn movements: If phases:	XN/A
TASKS Take pictures on each approach \Box Take pictures in cabinet (both sides)	oto Numbers:
Upload existing field data or populate standard timing sheet	8973
COMMENTS	
OI-PEPP. D. S ANE VOICE APA BUTTOMS - OI PROSOM NECAM	
AL-LOCK-DET- VEIL + DED- REMAIN 1000 DEL	
EVEN DEL - VEH & FRP- TROAD - MAX RECAM	
03-LOCK DIET	
	······································
	······································
Phase 1= (NB (US 50) Phase 5=	
Phase 2= NBLT Phase 6= OIB- AHA	2+3/1041
Phase 3= 513 (MIAMIRD) Phase 7= OLC=	(-1)-(-1)-+0)
Phase 4= OLD=	
PED 2= MONTH SIDK (L.S. 47) PED 6=	
PED 4= WESTSIDY (LISHO) PED 8=	

STATE OF DIAD	TRAFFIC SIGNAL TIN	AING INSPECTION FORM	1
IN IN	TERSECTION NAME: US 50 +	POCALTOM TAS	<u> </u> date: <i>R-22-1</i>)
	INSPECTED BY: VENTEL +	HUNSH	TIME: 12:05
CABINET Type:	□ 332 □ 336 □ TS-2 🕅 TS-1	Mounting: X Pole Ground	
CONTROLLER	Make & Model: TRANSY7 18801	Firmware Version: _	
Time and Date Syn	Ced with Reference: □ ced with Reference: □Yes □No	Ethernet Port? Yes No	Master? Yes No
COMMUNICATION	I □Radio □Cell Modem □Hardwire I/(srenced time
Does the controlle	r appear to be communicating with (a) the	Master? 🗆 Yes 🖾 No 🗆 N/A 🗇 Unknown	
COORDINATION			,
Is the controller "II Is the controller or List: □Cycle □	N STEP" with the System Cycle? Yes I perating: Coordinated @: Offset Split GGmd SRC DPT	No □N/A □Unknown List Free@: <u>/ノ:/ 0</u> N □Day Plan □ACT Plan	issues found below
DETECTION		Ren Ser	-
Working Properly?	\Box Yes Δ No: Issues Found $\leq F.C$ No	re L'None Brand: <u>10546</u> 7 201	
Delay times set on	the Loop, Radar, or Video detectors?	es INo Villakaowa IOa controllor IN	
DUCUDUTTONS			A LIST TIMES DEIOW
PUSHBUILONS	Provided? ^M Yes □No; Phase(s):	Q	
PHASING	Working Property? Laryes LNo LN/A;	List	issues found below
Ensure controller is	set to prevent vellow ball traps?	The Herdwined Marker Phanet	
List protected Left	Turn movements:	List split phases:	
TASKS Take			ÇX(V/A
	ad existing field data or populate standard	timing cheet	Numbers:
TOU HBL	DOP IS BAD = 64 MIN-	TIME CHANGED FROM PSEC TO	D 12 SKC
- + OU PLAN	DOM. MIM PREAL - TER 1	JIMEMEZ CAPITAL RECT	- 8-11-17
- NO CLOU	K- TC-DE IN CIARINE		
	- C- M M CADIME!	BUT HOT HOOKAP OP	
F : • • •			
<u> </u>		%	<u> </u>
·			
	ASSOCI	ATED PHASES	
Phase $1 = \frac{1}{10}$	Phase 5=	OLA= EB (1+2	2)
Phase 3=	Phase 6=	OLB=	
Phase 4= NR		OLC= .	
PED 2= SOUTH	SIDE & NAMESDIE PED 6=	OLD=	
PED 4= WEST	SIDE PED 8=		

TRAFFIC SIGNAL TIMANNO INCOMPANY	
INAFFIC SIGNAL TIMING INSPECTION FORM	1
INTERSECTION NAME: US 50 7 MARTEMONT PROMENADE	DATE: 8-22-17
INSPECTED BY: VENITRE & HURSH	TIME: 11:45
CABINET Type: 332 336 TS-2 TS-1 Mounting: Pole Ground	
CONTROLLER Make & Model: SIEMANN 2070L ATC	EAGLE EAR 300.
Address: Firmware Version: Firmw	Master? Type The
Time and Date Synced with Reference:	List phone number below
COMMUNICATION Call Modem Hardwire I/C Fiber TBC None Brand:	erenced time
Does the controller appear to be communicating with (a) the Master? \Box Yes Δ No \Box N/A \Box Unknown	 1
COORDINATION	
Is the controller "IN STEP" with the System Cycle? 🗆 Yes 🗍 No 🗇 N/A 🗇 Unknown	territe the t
Is the controller operating: Coordinated @: Free@://.50	
List: DCycle Doffset DSplit DCmd SRC DPTN Day Plan DACT Plan	
DETECTION Type: Badar DVideo XI oons DOther DNone Brend, PF-1	
Working Properly? Wes DNo; Issues Found	
Delay times set on the Loop, Radar, or Video detectors? □Yes □No ☑Unknown □On controller □N	/A List times below
PUSHBUTTONS Provided? [Ves Mile: Phase(a);	
Working Properly? \Box Yes \Box No \overline{M} N/A	
PHASING	issues found below
Ensure controller is set to prevent yellow ball traps? \Box Yes \Box No \Box Hardwired \heartsuit N/A; Phase(s):	
List protected Left Turn movements: List split phases:	□N/A
TASKS Take pictures on each approach	Numbers
Upload existing field data or populate standard timing sheet	Numbers.
COMMENTS	
ASSOCIATED PHASES	
Phase 1= Phase 5= OLA=	
Phase 6= WK OLB= Phase 3= Phase 7= OLC	
Phase 4= OLC= OLC= OLC=	
PED 2= PED 6=	
PED 4= PED 8=	

TRAFFIC SIGNAL TIMING INSPECTION FORM	1
INTERSECTION NAME: US 50 + MIAMI RUN/SAINGHIM	DATE: 8-22-17
INSPECTED BY: VIENTRE HUILSH	TIME: 10.30
CABINET Type: \cancel{A} 332 \square 336 \square TS-2 \square TS-1 Mounting: \cancel{A} Pole \square Ground CONTROLLER Make & Model: S/F_{AB} And S 2070 ATC T	EAGLE EPAC 300.
Address: Firmware Version: Firmw	Master? [Yes]No
COMMUNICATION Call Modem Hardwire 1/C Fiber TEC	renced time
Does the controller appear to be communicating with (a) the Master? \Box Yes \Box No \angle N/A \Box Unknown	······
COORDINATION	
Is the controller "IN STEP" with the System Cycle 2 The Tay Market The System Cycle 2	
Is the controller operating: Coordinated @:	issues found below
List: Cycle Offset Split Cmd SRC OPTN Day Plan ACT Plan	Unknown Unknown
DETECTION Type: Radar Video Loops Other None Brand:	
Working Properly? Yes No; Issues Found	
Delay times set on the Loop, Radar, or Video detectors? Yes No Unknown On controller N/	A List times below
PUSHBUTTONS Provided? Tayes DNo: Phase(s) OS	
Working Properly? $\triangle Y es \Box No \Box N/A$:	
	Include for the states
PHASING	issues found below
PHASING Ensure controller is set to prevent yellow ball traps? Pres	issues found below
PHASING Ensure controller is set to prevent yellow ball traps? Ust protected Left Turn movements:	issues found below
PHASING Image: Controller is set to prevent yellow ball traps? Image: Control to prev	issues found below 河N/A
PHASING Ensure controller is set to prevent yellow ball traps? Yes Np Hardwired X/A; Phase(s): List protected Left Turn movements: N/A List split phases: TASKS Take pictures on each approach Take pictures in cabinet (both sides) Photo	issues found below]ズN/A Numbers:
PHASING Ensure controller is set to prevent yellow ball traps? Yes □No □Hardwired XN/A; Phase(s): List protected Left Turn movements: N/A List split phases:	issues found below 这N/A Numbers:
PHASING Ensure controller is set to prevent yellow ball traps? Yes Np Hardwired An/A; Phase(s):	Numbers:
PHASING Ensure controller is set to prevent yellow ball traps? Yes No Hardwired M/A; Phase(s):	Numbers:
PHASING Ensure controller is set to prevent yellow ball traps? Yes □No □Hardwired ØN/A; Phase(s): List protected Left Turn movements: N/A List split phases: TASKS □Take pictures on each approach □Take pictures in cabinet (both sides) □Photo □Upload existing field data or populate standard timing sheet	Mumbers: Mumbers: Mumbers: Mugaramola SHEET
PHASING Ensure controller is set to prevent yellow ball traps? Yes No Hardwired AN/A; Phase(s):	Issues found below XN/A Numbers:
PHASING Ensure controller is set to prevent yellow ball traps? Yes DNo DHardwired AN/A; Phase(s):	Issues found below MIN/A Numbers: MIN TIME NUGHAMNEA SHEET
PHASING Ensure controller is set to prevent yellow ball traps? Yes No Hardwired (A/A; Phase(s):	Issues found below Numbers: Numbers: Numbers: Numbers: Numbers: Numbers: Numbers:
PHASING Ensure controller is set to prevent yellow ball traps? Ist protected Left Turn movements: Ist protected Left Turn movements: N/A List split phases: Image: Comments Paper with the protocol of the pr	Issues found below XN/A Numbers: NUMBERS
PHASING Ensure controller is set to prevent yellow ball traps? Ensure controller is set to prevent yellow ball traps? Provide the prevent yellow ball traps?	Issues found below MIN/A Numbers: NUMBERS:
PHASING Ist Ensure controller is set to prevent yellow ball traps? IYes No Itardwired IN/A; Phase(s): Itardwired	Issues found below MIN/A Numbers: MINJ TIME NUGHAMMEA SHEET
PHASING Ensure controller is set to prevent yellow ball traps? Yes Np Hardwired (AN/A; Phase(s):	Issues found below Numbers: Numbers: Numbers: Numbers: Numbers: Numbers: Numbers: Numbers: Numbers:
PHASING List Ensure controller is set to prevent yellow ball traps? Yes Np Hardwired (AN/A; Phase(s):	Issues found below MIN/A Numbers: NUMBERS:
PHASING Ist Ensure controller is set to prevent yellow ball traps? Yes Np Hardwired ØN/A; Phase(s):	Issues found below MIN/A Numbers: MIN, TIME NOGRAMMER SHEET
PHASING List Ensure controller is set to prevent yellow ball traps? Yes Np Hardwired @N/A; Phase(s):	Issues found below XN/A Numbers: Либи-Ашикл SHEET
PHASING Ist Ensure controller is set to prevent yellow ball traps? IYes INO IHardwired @N/A; Phase(s): List protected Left Turn movements: N/A List split phases: Itst split phases: TASKS ITake pictures on each approach ITake pictures in cabinet (both sides) IPhoto IUpload existing field data or populate standard timing sheet Image: Comments Image: Comments NO & 2 ON & ASSOCIATED PHASES Image: Comments NO & 2 ON & ASSOCIATED PHASES Image: Comments NO & 2 ON PHASE 1= EBL7 Image: Comments Phase 1= EBL7 Phase 5= Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Image: Comments Phase 1= EBL7 Image: Comments <td>Issues found below MIN/A Numbers: MIN, TIME NOGRAMMEA SHEET</td>	Issues found below MIN/A Numbers: MIN, TIME NOGRAMMEA SHEET

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TRAFFIC SICNIA		
TRAFFIC SIGNA	L TIVING INSPECTION FORM	<u>/</u>
INTERSECTION NAME: USS	> + WALTOH CREEK	DATE: 8-20-17
INSPECTED BY: VENT	LE & HUNSKA	TIME: 1005
CABINET Type: 🕅 332 🗆 336 🗆 TS-2 🗆 TS-1	Mounting: 🛛 Pole 🕅 Ground	
CONTROLLER Make & Model: SIF. Man's	2070L Firmware Version:	CACIE EPACIAL
Address: <u>060</u> Offset Reference:	Ethernet Port? 🖄 Yes 🗆 No	Master? Ves No
Time and Date Synced with Reference:	Econolite ASC-2 controller list 03C value	List phone number below Seconds +20
COMMUNICATION CRadio Cell Modem	Fast or Slow from re	ferenced time
Does the controller appear to be communicating with	th (a) the Master? \Box Yes \Box No $\overline{X}N/A$ \Box Unknow	n
COORDINATION		
Is the controller "IN STEP" with the System Curled F		
Is the controller operating: Coordinated @.	LYes LINO XIN/A □Unknown List	issues found below
List: Cycle Coffset CSplit Cmd SRC	□PTN □Day Plan □ACT Plan	Unknown
DETECTION Type: Radar Video Loo	ps Other None Brand REHD	
Working Properly? Yes DNo; Issues Found		
Delay times set on the Loop, Radar, or Video detecto	ors? Yes No Unknown On controller No	/A list times below
PUSHBUTTONS Drovided		The List times below
Working Property 2 Wyos Class	$Phase(s): \underline{\bigcirc} \bigcirc \underline{\bigcirc}$	
	LIN/A; Lis	t issues found below
Ensure controller is set to prevent vellow ball trans?	Ves DNo Duerdwined MN(A Direct)	
List protected Left Turn movements:	H/VA List split phase(s):	
		AN/A
TASKS	□Take pictures in cabinet (both sides) □Photo	Numbers:
Upload existing field data or populate	standard timing sheet	
OG PED OM RECALL	COMMENTS	
		0
Phase 1= WRLT	ASSOCIATED PHASES	
Phase 2= 2 B		
Phase 3= Phase 7=		
Phase 4= NB Phase 8=	: SR 010=	<u> </u>
PED 2= PED 6=	NORTH SIDE	
RED 4-	1 10 00 0	

GINEOFORD	TRAFFIC SIGNAL	TIMING INSPECTION	
OF THAT ST		V MEWTOWN PP	DATE: 8-22-17
		4 HUISH	TIME: 09-35
CABINET Type:	🛱 332 🗆 336 🗆 TS-2 🗆 TS-1	Mounting: 🛛 Pole 🕅 Gro	und GAGLIE EPAC 300
CONTROLLER	Make & Model: <u>SIEMANS</u> 20	<u>70L ACT</u> Firmwa	as 3.349
Address:	Offset Reference:	Ethernet Port	Vers No Master? Tyes No
Time and Date Synce	ed with Reference: الالاحة المحافظ	olite ASC-2 controller list 03C value	List phone number below Seconds ~ 22
COMMUNICATION	□Radio □Cell Modem □Hardw		Fast or Slow from referenced time
Does the controller a	appear to be communicating with (a) the Master? Yes XINO N/A	TUnknown
COOPDINATION			
Is the controller "IN I			
is the controller and	rating: Coordinated @.	s □No □N/A XUnknown	List issues found below
	ffset NSplit DCmd Spc	Free@: <u>0750</u>	🗆 Unknown
0 z			an
DETECTION	ſype: □Radar □Video ØLoops	□Other □None Brand: <u>₽<u>E</u>H ₽</u>	
Working Properly?	₩Yes □No; Issues Found	· · · · · · · · · · · · · · · · · · ·	
Delay times set on th	e Loop, Radar, or Video detectors?	□Yes □No 🕅 Unknown □On co	ntroller
PUSHBUTTONS	Provided? XYes No. Pha	isols: A4	
١	Norking Properly?	/Δ·	
PHASING		<i>'''</i>	List issues found below
Ensure controller is s	et to prevent yellow ball traps?	lYes □No □Hardwired ☑N/A: Pha	se(s):
List protected Left Tu	rn movements: Ø	List split phases: _	
TASKS 🗆 Take p	ictures on each approach		
	existing field data or nonulate star	ake pictures in cabinet (both sides)	□Photo Numbers:
	entering field data of populate stal		
- APVAUCE WE	MHING FLASHER USE &	6 PED LOAD SWITCH	
	1		
- 06 MARIKED	AS OLA IN CADINET	ACTUAL OS WB)	
- ROAD TREMO (3PS HOT HONK 20 TO T	111.6	
	<u> </u>	1 Martin	
1 . N.	A	SOCIATED PHASES	
Phase 1= WELT	Phase 5=	OLA=	35
Phase 2= ZK	Phase 6= U	UB OLB=	
Phase 4= NR	Phase 7=	OLC=	•
PED 2=	Phase 8=	OLD=	
PED 4= EASTSI	DE DED 8-		



APPENDIX B



SR 32 @ CLOUGH PIKE EXISTING GEOMETRICS AND SIGNAL LAYOUT



PHASING DIAGRAM



SIGNAL POLE	\bullet
PEDESTAL	•
1-SECTION SIGNAL	•
3-SECTION SIGNAL	$ \rightarrow $
3-SECTION W/ ARROWS	•
4-SECTION W/ ARROWS	•
5-SECTION SIGNAL	•
PEDESTRIAN SIGNAL	-
CONTROLLER CABINET	\bowtie
DETECTOR LOOP	
SIGN LOCATION	4
STOP BAR RADAR DETECTIO	ON - 🔊

SR 32 @ CHURCH STREET EXISTING GEOMETRICS AND SIGNAL LAYOUT



SIGN LOCATION

SR 32 @ ROUNDBOTTOM ROAD EXISTING GEOMETRICS AND SIGNAL LAYOUT



PHASING DIAGRAM



SIGNAL POLE PEDESTAL 3-SECTION SIGNAL 3-SECTION W/ ARROWS 4-SECTION SIGNAL 5-SECTION SIGNAL PEDESTRIAN SIGNAL CONTROLLER CABINET DETECTOR LOOP SIGN LOCATION

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SR 32 @ IVY HILLS PLACE EXISTING GEOMETRICS AND SIGNAL LAYOUT



PHASING DIAGRAM



-MAINLINE PHASES 2 & 6

NOTE:

SIGNAL POLE PEDESTAL 3-SECTION SIGNAL ;+↑↑↑ ↑↑ 3-SECTION W/ ARROWS 4-SECTION W/ ARROWS 5-SECTION SIGNAL PEDESTRIAN SIGNAL CONTROLLER CABINET DETECTOR LOOP SIGN LOCATION

SR 32 @ LITTLE DRY RUN ROAD EXISTING GEOMETRICS AND SIGNAL LAYOUT



PHASING DIAGRAM



SIGNAL POLE	\bullet
PEDESTAL	•
3-SECTION SIGNAL	\leftrightarrow
3-SECTION W/ ARROWS	•
4-SECTION W/ ARROWS	•
5-SECTION SIGNAL	•
PEDESTRIAN SIGNAL	→
CONTROLLER CABINET	\bowtie
DETECTOR LOOP	
SIGN LOCATION	4

ROUND BOTTOM ROAD @ VALLEY AVENUE EXISTING GEOMETRICS AND SIGNAL LAYOUT



PHASING DIAGRAM



SIGNAL POLE PEDESTAL 3-SECTION SIGNAL +↑↑ ↑↑ ▼ 3-SECTION W/ ARROWS 4-SECTION W/ ARROWS 5-SECTION SIGNAL PEDESTRIAN SIGNAL CONTROLLER CABINET DETECTOR LOOP SIGN LOCATION

CHURCH STREET @ VALLEY AVENUE EXISTING GEOMETRICS AND SIGNAL LAYOUT





SIGNAL POLE PEDESTAL 3-SECTION SIGNAL 3-SECTION W/ ARROWS 4-SECTION W/ ARROWS 5-SECTION SIGNAL PEDESTRIAN SIGNAL CONTROLLER CABINET DETECTOR LOOP SIGN LOCATION

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RED BANK ROAD @ WOOSTER PIKE EXISTING GEOMETRICS AND SIGNAL LAYOUT



PHASING DIAGRAM



SIGNAL POLE	\bullet
PEDESTAL	•
3-SECTION SIGNAL	$ \rightarrow $
3-SECTION W/ ARROWS	•+
4-SECTION W/ ARROWS	•
5-SECTION SIGNAL	•+
PEDESTRIAN SIGNAL	→
CONTROLLER CABINET	\bowtie
DETECTOR LOOP	
SIGN LOCATION	4
STOP BAR RADAR DETECTIO	ON

RED BANK ROAD @ COLBANK ROAD EXISTING GEOMETRICS AND SIGNAL LAYOUT



PHASING DIAGRAM



SIGNAL POLE PEDESTAL 3-SECTION SIGNAL 3-SECTION W/ ARROWS 4-SECTION W/ ARROWS 5-SECTION SIGNAL PEDESTRIAN SIGNAL CONTROLLER CABINET DETECTOR LOOP SIGN LOCATION

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US 50 @ MEADOWLARK LANE EXISTING GEOMETRICS AND SIGNAL LAYOUT



PHASING DIAGRAM



SIGNAL POLE	\bullet
PEDESTAL	•
3-SECTION SIGNAL	$ \rightarrow $
3-SECTION W/ ARROWS	•+
4-SECTION W/ ARROWS	•
5-SECTION SIGNAL	•
PEDESTRIAN SIGNAL	\
CONTROLLER CABINET	\bowtie
DETECTOR LOOP	
SIGN LOCATION	-

US 50 @ WATTERSON BOULEVARD EXISTING GEOMETRICS AND SIGNAL LAYOUT



PHASING DIAGRAM



SIGNAL POLE
PEDESTAL
3-SECTION SIGNAL
3-SECTION W/ ARROWS
4-SECTION W/ ARROWS
5-SECTION SIGNAL
PEDESTRIAN SIGNAL
CONTROLLER CABINET
DETECTOR LOOP
SIGN LOCATION

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US 50 @ MADISONVILLE ROAD EXISTING GEOMETRICS AND SIGNAL LAYOUT



US 50 @ MIAMI ROAD EXISTING GEOMETRICS AND SIGNAL LAYOUT



PHASING DIAGRAM



US 50 @ POCAHONTAS ROAD EXISTING GEOMETRICS AND SIGNAL LAYOUT



PHASING DIAGRAM



SIGNAL POLE PEDESTAL 3-SECTION SIGNAL 3-SECTION W/ ARROWS 4-SECTION W/ ARROWS 5-SECTION SIGNAL PEDESTRIAN SIGNAL CONTROLLER CABINET DETECTOR LOOP SIGN LOCATION

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US 50 @ MARIEMONT PLAZA SHOPPING CENTER EXISTING GEOMETRICS AND SIGNAL LAYOUT



PHASING DIAGRAM

LEGEND

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SIGNAL POLE PEDESTAL 3-SECTION SIGNAL 3-SECTION W/ ARROWS 4-SECTION W/ ARROWS 5-SECTION SIGNAL PEDESTRIAN SIGNAL CONTROLLER CABINET DETECTOR LOOP SIGN LOCATION

+↑↑↑↑ ▼↑

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U.S. 50 AND SPRING HILL DRIVE EXISTING GEOMETRICS AND SIGNAL LAYOUT



PHASING DIAGRAM



SIGNAL POLE	\bullet
PEDESTAL	•
3-SECTION SIGNAL	$ \rightarrow $
3-SECTION W/ ARROWS	•+
4-SECTION W/ ARROWS	•
5-SECTION SIGNAL	•
PEDESTRIAN SIGNAL	ᡝ
CONTROLLER CABINET	\bowtie
DETECTOR LOOP	
SIGN LOCATION	-

U.S. 50 AND WALTON CREEK ROAD EXISTING GEOMETRICS AND SIGNAL LAYOUT



PHASING DIAGRAM







SIGNAL POLE PEDESTAL 3-SECTION SIGNAL 3-SECTION W/ ARROWS 4-SECTION W/ ARROWS 5-SECTION SIGNAL PEDESTRIAN SIGNAL CONTROLLER CABINET DETECTOR LOOP SIGN LOCATION

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APPENDIX C



Intersection: SR-32 & Clough Pike Count Date: 11/17/15 A.M. Peak-Hour: 7:15 - 8:15 AM Peak Hour Factor: 0.93

				C	lough Pil	ke		SR-32		SR -32			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Cars and Trucks	0	0	0	689	0	4	0	301	231	0	594	0	
Cars	0	0	0	682	0	4	0	283	226	0	562	0	
Trucks	0	0	0	7	0	0	0	18	5	0	32	0	
% Heavy Vehicles				1.0%		0.0%		6.0%	2.2%		5.4%		

Intersection: SR-32 & Church Street Count Date: 05/17/17 A.M. Peak-Hour: 7:15 - 8:15 AM Peak Hour Factor: 0.80

		SR-32			SR-32		(Church S	it .	Church St			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Cars and Trucks	81	253	21	43	602	93	37	389	65	82	142	74	
Cars	77	234	18	34	549	87	32	380	59	76	134	68	
Trucks	4	19	3	9	53	6	5	9	6	6	8	6	
% Heavy Vehicles	4.9%	7.5%	14.3%	20.9%	8.8%	6.5%	13.5%	2.3%	9.2%	7.3%	5.6%	8.1%	

Intersection: SR-32 & Round Bottom Road Count Date: 05/17/17 A.M. Peak-Hour: 7:00 - 8:00 AM Peak Hour Factor: 0.93

		SR-32			SR-32		Ri	ver Hills	Dr	Round Bottom Rd			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Cars and Trucks	95	240	37	18	562	645	55	22	13	191	17	144	
Cars	87	224	37	18	534	625	54	22	13	175	17	118	
Trucks	8	16	0	0	28	20	1	0	0	16	0	26	
% Heavy Vehicles	8.4%	6.7%	0.0%	0.0%	5.0%	3.1%	1.8%	0.0%	0.0%	8.4%	0.0%	18.1%	

Intersection: SR-32 & Ivy Hills Place Count Date: 05/16/17 A.M. Peak-Hour: 6:45 - 7:45 AM Peak Hour Factor: 0.92

		SR-32			SR-32			vy Hills F	2			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	346	3	21	1205	0	44	0	27	0	0	0
Cars	0	323	3	21	1168	0	44	0	27	0	0	0
Trucks	0	23	0	0	37	0	0	0	0	0	0	0
% Heavy Vehicles		6.6%	0.0%	0.0%	3.1%		0.0%		0.0%			

Intersection: SR-32 & Little Dry Run Count Date: 12/09/15 A.M. Peak-Hour: 7:00 - 8:00 AM Peak Hour Factor: 0.97

		SR-32			SR-32		Lit	tle Dry R	un			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	429	35	20	1097	0	179	0	19	0	0	0
Cars	0	394	29	19	1051	0	177	0	17	0	0	0
Trucks	0	35	6	1	46	0	2	0	2	0	0	0
% Heavy Vehicles		8.2%	17.1%	5.0%	4.2%		1.1%		10.5%			

Intersection: Round Bottom Road & Valley Avenue Count Date: 12/09/15 A.M. Peak-Hour: 7:15 - 8:15 AM Peak Hour Factor: 0.92

	V	alley Av	'e				Roui	nd Bottor	n Rd	Round Bottom Rd			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Cars and Trucks	75	0	168	0	0	0	571	117	0	0	171	223	
Cars	70	0	166	0	0	0	554	106	0	0	140	201	
Trucks	5	0	2	0	0	0	17	11	0	0	31	22	
% Heavy Vehicles	6.7%		1.2%				3.0%	9.4%			18.1%	9.9%	

Intersection: Church Street/Newtown Road & Valley Avenue Count Date: 12/09/15 A.M. Peak-Hour: 7:15 - 8:15 AM Peak Hour Factor: 0.92

	Pa	rk Drivew	vay	V	'alley Av	'e	(Church S	it.	Newtown Rd		
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	1	0	80	1	713	2	416	47	241	266	2
Cars	0	1	0	75	1	684	2	398	46	235	256	2
Trucks	0	0	0	5	0	29	0	18	1	6	10	0
% Heavy Vehicles		0.0%		6.3%	0.0%	4 .1%	0.0%	4.3%	2 .1%	2.5%	3.8%	0.0%

Intersection: Wooster Road & Red Bank Road/Wooster Pike Count Date: 11/17/15 A.M. Peak-Hour: 7:15 - 8:15 AM Peak Hour Factor: 0.96

	Re	ed Bank	Rd	W	ooster Pi	ke	N	/ooster R	۱d					
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Cars and Trucks	0	57	273	94	22	0	752	0	156	0	0	0		
Cars	0	53	241	88	19	0	720	0	151	0	0	0		
Trucks	0	4	32	6	3	0	32	0	5	0	0	0		
% Heavy Vehicles		7.0%	11.7%	6.4%	13.6%		4.3%		3.2%					

Intersection: Red Bank Road & Colbank Road Count Date: 02/17/16 A.M. Peak-Hour: 7:15 - 8:15 AM Peak Hour Factor: 0.93

				C	olbank I	Rd	Re	ed Bank	Rd	Re	ed Bank	Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	0	0	7	0	645	0	744	2	173	374	0
Cars	0	0	0	6	0	637	0	713	2	165	339	0
Trucks	0	0	0	1	0	8	0	31	0	8	35	0
% Heavy Vehicles				14.3%		1.2%		4.2%	0.0%	4.6%	9.4%	

Intersection: US-50 & Meadowlark Lane/Wooster Pike Count Date: 05/09/17 A.M. Peak-Hour: 7:00 - 8:00 AM Peak Hour Factor: 0.94

		US-50			US-50		W	ooster Pi	ke	Me	adowlar	k Ln
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	42	415	45	117	789	12	31	25	152	49	19	66
Cars	42	406	44	114	773	12	29	23	142	44	16	65
Trucks	0	9	1	3	16	0	2	2	10	5	3	1
% Heavy Vehicles	0.0%	2.2%	2.2%	2.6%	2.0%	0.0%	6.5%	8.0%	6.6%	10.2%	15.8%	1.5%

Intersection: US-50 & Watterson Road Count Date: 11/19/15 A.M. Peak-Hour: 7:30 - 8:30 AM Peak Hour Factor: 0.94

		US-50			US-50			Driveway	1	W	atterson	Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	42	527	2	1	900	101	1	0	0	130	2	66
Cars	42	498	2	1	870	100	1	0	0	127	2	66
Trucks	0	29	0	0	30	1	0	0	0	3	0	0
% Heavy Vehicles	0.0%	5.5%	0.0%	0.0%	3.3%	1.0%	0.0%			2.3%	0.0%	0.0%

Intersection: US-50 & Madisonville Road (WB Direction) Count Date: 12/01/15 A.M. Peak-Hour: 7:30 - 8:30 AM Peak Hour Factor: 0.96

					US-50					Ma	disonville	e Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	0	0	17	759	494	0	0	0	0	263	25
Cars	0	0	0	17	739	482	0	0	0	0	258	25
Trucks	0	0	0	0	20	12	0	0	0	0	5	0
% Heavy Vehicles				0.0%	2.6%	2.4%					1.9%	0.0%

Intersection: US-50 & Madisonville Road (EB Direction) Count Date: 12/01/15 A.M. Peak-Hour: 7:30 - 8:30 AM Peak Hour Factor: 0.96

		US-50						Miami Ro	d	Ma	disonville	e Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	405	6	0	0	0	0	0	23	254	29	0
Cars	0	379	6	0	0	0	0	0	23	249	29	0
Trucks	0	26	0	0	0	0	0	0	0	5	0	0
% Heavy Vehicles		6.4%	0.0%						0.0%	2.0%	0.0%	

Intersection: US-50 & Miami Road (WB Direction) Count Date: 12/01/15 A.M. Peak-Hour: 7:30 - 8:30 AM Peak Hour Factor: 0.93

					US-50			Miami Ro	4		Miami Ro	k
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	0	0	0	1197	2	45	82	0	0	0	107
Cars	0	0	0	0	1171	2	44	79	0	0	0	105
Trucks	0	0	0	0	26	0	1	3	0	0	0	2
% Heavy Vehicles					2.2%	0.0%	2.2%	3.7%				1.9%

Intersection: US-50 & Pocahontas Avenue Count Date: 05/10/17 A.M. Peak-Hour: 7:15 - 8:15 AM Peak Hour Factor: 0.85

		US-50			US-50		Poc	ahontas	Ave	Poc	ahontas	Ave
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	111	523	2	0	1183	138	7	5	0	60	1	51
Cars	110	503	2	0	1159	136	7	5	0	60	1	49
Trucks	1	20	0	0	24	2	0	0	0	0	0	2
% Heavy Vehicles	0.9%	3.8%	0.0%		2.0%	1.4%	0.0%	0.0%		0.0%	0.0%	3.9%

Intersection: US-50 & Mariemont Promenade Shopping Center Count Date: 05/10/17 A.M. Peak-Hour: 7:15 - 8:15 AM Peak Hour Factor: 0.91

		US-50			US-50		Shopp	ing Cent	er Dwy			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	590	9	7	1319	0	5	0	2	0	0	0
Cars	0	565	9	7	1294	0	5	0	1	0	0	0
Trucks	0	25	0	0	25	0	0	0	1	0	0	0
% Heavy Vehicles		4.2%	0.0%	0.0%	1. 9 %		0.0%		50.0%			

Intersection: US-50 & Spring Hill Drive/Miami Run Count Date: 05/25/17 A.M. Peak-Hour: 7:30 - 8:30 AM Peak Hour Factor: 0.92

		US-50			US-50		٨	Aiami Ru	n	Sp	oring Hill	Dr
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	1	582	81	82	1052	3	145	0	52	1	1	3
Cars	0	552	80	82	1022	3	143	0	50	1	1	2
Trucks	1	30	1	0	30	0	2	0	2	0	0	1
% Heavy Vehicles	100%	5.2%	1.2%	0.0%	2.9%	0.0%	1.4%		3.8%	0.0%	0.0%	33.3%

Intersection: US-50 & Walton Creek Road Count Date: 11/24/15 A.M. Peak-Hour: 7:15 - 8:15 AM Peak Hour Factor: 0.86

		US-50			US-50		Wal	on Cree	k Rd	Wal	ton Cree	k Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	32	474	11	34	1111	375	6	10	23	124	10	18
Cars	31	444	9	33	1056	365	5	10	22	122	10	18
Trucks	1	30	2	1	55	10	1	0	1	2	0	0
% Heavy Vehicles	3.1%	6.3%	18.2%	2.9 %	5.0%	2.7%	16.7%	0.0%	4.3%	1.6%	0.0%	0.0%

Intersection: US-50 & Newtown Road Count Date: 11/24/15 A.M. Peak-Hour: 7:00 - 8:00 AM Peak Hour Factor: 0.90

		US-50			US-50		N	ewtown	Rd			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	184	329	92	476	0	919	0	68	0	0	0
Cars	0	170	314	87	464	0	882	0	61	0	0	0
Trucks	0	14	15	5	12	0	37	0	7	0	0	0
% Heavy Vehicles		7.6%	4.6%	5.4%	2.5%		4.0%		10.3%			

Intersection: SR-32 & Clough Pike Count Date: 11/17/15 Mid-Day Peak-Hour: 12:00 - 1:00 PM Peak Hour Factor: 0.84

				C	lough Pi	ke		SR-32			SR -32	
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	0	0	251	0	7	0	234	217	1	223	0
Cars	0	0	0	243	0	6	0	211	211	1	200	0
Trucks	0	0	0	8	0	1	0	23	6	0	23	0
% Heavy Vehicles				3.2%		14.3%		9.8 %	2.8%	0.0%	10.3%	

Intersection: SR-32 & Church Street Count Date: 12/09/15 Mid-Day Peak-Hour: 1:00 - 2:00 PM Peak Hour Factor: 0.95

	SR-32			SR-32			Church St			Church St		
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	59	227	29	71	218	51	20	130	45	98	168	47
Cars	55	203	28	67	195	50	19	128	40	93	163	41
Trucks	4	24	1	4	23	1	1	2	5	5	5	6
% Heavy Vehicles	6.8%	10.6%	3.4%	5.6%	10.6%	2.0%	5.0%	1.5%	11.1%	5.1%	3.0%	12.8%

Intersection: SR-32 & Round Bottom Road Count Date: 12/09/15 Mid-Day Peak-Hour: 12:30 - 1:30 PM Peak Hour Factor: 0.97

	SR-32			SR-32			River Hills Dr			Round Bottom Rd		
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	56	273	27	24	280	209	36	30	28	261	29	71
Cars	39	250	23	24	259	185	34	29	21	244	27	62
Trucks	17	23	4	0	21	24	2	1	7	17	2	9
% Heavy Vehicles	30.4%	8.4%	14.8%	0.0%	7.5%	11.5%	5.6%	3.3%	25.0%	6.5%	6.9 %	12.7%

Intersection: SR-32 & Ivy Hills Place Count Date: 05/16/17 Mid-Day Peak-Hour: 11:30 AM - 12:30 PM Peak Hour Factor: 0.84

	SR-32			SR-32			lvy Hills Pl					
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	553	11	26	497	0	27	0	17	0	0	0
Cars	0	494	10	23	439	0	23	0	16	0	0	0
Trucks	0	59	1	3	58	0	4	0	1	0	0	0
% Heavy Vehicles		10.7%	9 .1%	11.5%	11.7%		14.8%		5.9%			
Intersection: SR-32 & Little Dry Run Count Date: 12/09/15 Mid-Day Peak-Hour: 1:00 - 2:00 PM Peak Hour Factor: 0.96

		SR-32			SR-32		Lit	tle Dry R	บท			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	527	62	24	433	0	76	0	32	0	0	0
Cars	0	462	56	23	383	0	72	0	32	0	0	0
Trucks	0	65	6	1	50	0	4	0	0	0	0	0
% Heavy Vehicles		12.3%	9.7%	4.2%	11.5%		5.3%		0.0%			

Intersection: Round Bottom Road & Valley Avenue Count Date: 12/09/15 Mid-Day Peak-Hour: 1:00 - 2:00 PM Peak Hour Factor: 0.86

	V	alley Av	'e				Rou	nd Bottor	n Rd	Rou	nd Bottor	m Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	83	0	250	0	0	0	190	93	0	0	110	68
Cars	74	0	243	0	0	0	183	74	0	0	85	55
Trucks	9	0	7	0	0	0	7	19	0	0	25	13
% Heavy Vehicles	10.8%		2.8%				3.7%	20.4%			22.7%	19.1%

Intersection: Church Street/Newtown Road & Valley Avenue Count Date: 12/09/15 Mid-Day Peak-Hour: 12:30 - 1:30 PM Peak Hour Factor: 0.97

	Pa	rk Drivev	vay	V	alley Av	'e		Church S	it	N	ewtown	Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	8	0	3	20	1	209	3	188	32	322	280	1
Cars	8	0	1	17	1	194	3	177	31	307	269	1
Trucks	0	0	2	3	0	15	0	11	1	15	11	0
% Heavy Vehicles	0.0%		66.7%	15.0%	0.0%	7.2%	0.0%	5.9%	3.1%	4.7%	3.9%	0.0%

Intersection: Wooster Road & Red Bank Road/Wooster Pike Count Date: 11/17/15 Mid-Day Peak-Hour: 12:30 - 1:30 PM Peak Hour Factor: 0.96

	Re	ed Bank	Rd	W	ooster Pi	ke	N	looster R	۱d			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	59	316	116	42	0	315	0	98	0	0	0
Cars	0	50	277	106	33	0	267	0	93	0	0	0
Trucks	0	9	39	10	9	0	48	0	5	0	0	0
% Heavy Vehicles		15.3%	12.3%	8.6%	21.4%		15.2%		5.1%			

Intersection: Red Bank Road & Colbank Road Count Date: 02/17/16 Mid-Day Peak-Hour: 12:00 - 1:00 PM Peak Hour Factor: 0.95

				С	olbank I	۲d	Re	ed Bank	Rd	Re	ed Bank	Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	0	0	10	0	266	0	341	8	265	370	0
Cars	0	0	0	10	0	252	0	299	8	250	338	0
Trucks	0	0	0	0	0	14	0	42	0	15	32	0
% Heavy Vehicles				0.0%		5.3%		12.3%	0.0%	5.7%	8.6%	

Intersection: US-50 & Meadowlark Lane/Wooster Pike Count Date: 11/19/15 Mid-Day Peak-Hour: 11:30 AM - 12:30 PM Peak Hour Factor: 0.91

		US-50			US-50		W	ooster Pi	ke	Me	adowlar	k Ln
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	45	381	40	114	319	11	35	30	172	14	20	39
Cars	42	362	35	109	308	10	30	28	157	12	20	37
Trucks	3	19	5	5	11	1	5	2	15	2	0	2
% Heavy Vehicles	6.7%	5.0%	12.5%	4.4%	3.4%	9 .1%	14.3%	6.7%	8.7%	14.3%	0.0%	5.1%

Intersection: US-50 & Watterson Road Count Date: 11/19/15 Mid-Day Peak-Hour: 11:30 AM - 12:30 PM Peak Hour Factor: 0.96

		US-50			US-50			Driveway	1	W	atterson	Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	30	580	0	0	489	85	3	0	0	149	0	38
Cars	30	552	0	0	470	84	3	0	0	143	0	36
Trucks	0	28	0	0	19	1	0	0	0	6	0	2
% Heavy Vehicles	0.0%	4.8%			3.9 %	1.2%	0.0%			4.0%		5.3%

Intersection: US-50 & Madisonville Road (WB Direction) Count Date: 12/01/15 Mid-Day Peak-Hour: 12:15 - 1:15 PM Peak Hour Factor: 0.89

					US-50					Ma	disonville	e Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	0	0	29	458	233	0	0	0	0	198	24
Cars	0	0	0	27	432	226	0	0	0	0	195	23
Trucks	0	0	0	2	26	7	0	0	0	0	3	1
% Heavy Vehicles				6.9%	5.7%	3.0%					1.5%	4.2%

Intersection: US-50 & Madisonville Road (EB Direction) Count Date: 12/01/15 Mid-Day Peak-Hour: 12:15 - 1:15 PM Peak Hour Factor: 0.97

		US-50						Miami Ro	d	Ma	disonville	e Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	516	10	0	0	0	0	0	19	225	9	0
Cars	0	488	10	0	0	0	0	0	19	219	9	0
Trucks	0	28	0	0	0	0	0	0	0	6	0	0
% Heavy Vehicles		5.4%	0.0%						0.0%	2.7%	0.0%	

Intersection: US-50 & Miami Road (WB Direction) Count Date: 12/01/15 Mid-Day Peak-Hour: 12:15 - 1:15 PM Peak Hour Factor: 0.84

					US-50			Miami Ro	4		Miami Ro	b
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	0	0	0	601	21	44	63	0	0	0	83
Cars	0	0	0	0	567	20	43	60	0	0	0	80
Trucks	0	0	0	0	34	1	1	3	0	0	0	3
% Heavy Vehicles					5.7%	4.8%	2.3%	4.8%				3.6%

Intersection: US-50 & Pocahontas Avenue Count Date: 05/10/17 Mid-Day Peak-Hour: 12:15 - 1:15 PM Peak Hour Factor: 0.90

		US-50			US-50		Poc	ahontas	Ave	Poc	ahontas	Ave
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	33	704	4	1	645	68	0	0	4	79	2	34
Cars	33	683	4	1	619	66	0	0	4	79	2	34
Trucks	0	21	0	0	26	2	0	0	0	0	0	0
% Heavy Vehicles	0.0%	3.0%	0.0%	0.0%	4.0%	2.9 %			0.0%	0.0%	0.0%	0.0%

Intersection: US-50 & Mariemont Promenade Shopping Center Count Date: 05/10/17 Mid-Day Peak-Hour: 12:15 - 1:15 PM Peak Hour Factor: 0.93

		US-50			US-50		Shopp	ing Cent	er Dwy			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	746	48	35	678	0	38	0	38	0	0	0
Cars	0	723	46	35	650	0	36	0	38	0	0	0
Trucks	0	23	2	0	28	0	2	0	0	0	0	0
% Heavy Vehicles		3.1%	4.2%	0.0%	4 .1%		5.3%		0.0%			

Intersection: US-50 & Spring Hill Drive/Miami Run Count Date: 05/25/17 Mid-Day Peak-Hour: 11:45 AM - 12:45 PM Peak Hour Factor: 0.89

		US-50			US-50		٨	Aiami Ru	n	Sp	oring Hill	Dr
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	7	667	155	61	519	5	173	0	75	1	1	3
Cars	6	648	153	59	496	4	172	0	71	1	1	3
Trucks	1	19	2	2	23	1	1	0	4	0	0	0
% Heavy Vehicles	14%	2.8%	1.3%	3.3%	4.4%	20.0%	0.6%		5.3%	0.0%	0.0%	0.0%

Intersection: US-50 & Walton Creek Road Count Date: 11/24/15 Mid-Day Peak-Hour: 12:15 - 1:15 PM Peak Hour Factor: 0.90

		US-50			US-50		Wal	ton Cree	k Rd	Wal	on Cree	k Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	47	560	49	78	541	120	51	28	74	150	37	39
Cars	43	526	48	75	501	116	48	27	73	147	36	39
Trucks	4	34	1	3	40	4	3	1	1	3	1	0
% Heavy Vehicles	8.5%	6.1%	2.0%	3.8%	7.4%	3.3%	5.9%	3.6%	1.4%	2.0%	2.7%	0.0%

Intersection: US-50 & Newtown Road Count Date: 11/24/15 Mid-Day Peak-Hour: 12:15 - 1:15 PM Peak Hour Factor: 0.96

		US-50			US-50		Ne	ewtown	Rd			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	296	465	64	259	0	471	0	49	0	0	0
Cars	0	280	443	59	240	0	445	0	42	0	0	0
Trucks	0	16	22	5	19	0	26	0	7	0	0	0
% Heavy Vehicles		5.4%	4.7%	7.8%	7.3%		5.5%		14.3%			

Intersection: SR-32 & Clough Pike Count Date: 11/17/15 P.M. Peak-Hour: 5:00 - 6:00 PM Peak Hour Factor: 0.93

				C	lough Pil	ke		SR-32			SR -32	
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	0	0	362	0	8	0	644	678	0	349	0
Cars	0	0	0	359	0	8	0	632	675	0	342	0
Trucks	0	0	0	3	0	0	0	12	3	0	7	0
% Heavy Vehicles				0.8%		0.0%		1. 9 %	0.4%		2.0%	

Intersection: SR-32 & Church Street Count Date: 05/17/17 P.M. Peak-Hour: 5:00 - 6:00 PM Peak Hour Factor: 0.89

		SR-32			SR-32			Church S	it		Church S	it
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	82	646	35	105	387	51	44	279	96	107	345	90
Cars	78	631	35	105	381	51	44	277	91	105	342	87
Trucks	4	15	0	0	6	0	0	2	5	2	3	3
% Heavy Vehicles	4.9%	2.3%	0.0%	0.0%	1.6%	0.0%	0.0%	0.7%	5.2%	1.9%	0.9%	3.3%

Intersection: SR-32 & Round Bottom Road Count Date: 05/17/17 P.M. Peak-Hour: 4:45 - 5:45 PM Peak Hour Factor: 0.94

		SR-32			SR-32		Ri	iver Hills	Dr	Roui	nd Bottor	n Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	139	569	43	23	304	378	37	41	39	548	52	105
Cars	133	566	43	23	301	362	37	40	39	543	50	103
Trucks	6	3	0	0	3	16	0	1	0	5	2	2
% Heavy Vehicles	4.3%	0.5%	0.0%	0.0%	1.0%	4.2%	0.0%	2.4%	0.0%	0.9%	3.8%	1.9%

Intersection: SR-32 & Ivy Hills Place Count Date: 05/16/17 P.M. Peak-Hour: 5:15 - 6:15 PM Peak Hour Factor: 0.91

		SR-32			SR-32			vy Hills F	2			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	988	30	36	801	0	39	0	49	0	0	0
Cars	0	966	30	36	778	0	38	0	49	0	0	0
Trucks	0	22	0	0	23	0	1	0	0	0	0	0
% Heavy Vehicles		2.2%	0.0%	0.0%	2.9 %		2.6%		0.0%			

Intersection: SR-32 & Little Dry Run Count Date: 12/09/15 P.M. Peak-Hour: 5:00 - 6:00 PM Peak Hour Factor: 0.97

		SR-32			SR-32		Lit	tle Dry R	บท			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	964	154	44	539	0	109	0	33	0	0	0
Cars	0	942	151	44	528	0	109	0	30	0	0	0
Trucks	0	22	3	0	11	0	0	0	3	0	0	0
% Heavy Vehicles		2.3%	1. 9 %	0.0%	2.0%		0.0%		9 .1%			

Intersection: Round Bottom Road & Valley Avenue Count Date: 12/09/15 P.M. Peak-Hour: 4:45 - 5:45 PM Peak Hour Factor: 0.89

	V	'alley Av	'e				Rou	nd Bottoı	n Rd	Roui	nd Bottoi	m Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	194	0	435	0	0	0	286	168	0	0	153	103
Cars	179	0	432	0	0	0	283	145	0	0	142	98
Trucks	15	0	3	0	0	0	3	23	0	0	11	5
% Heavy Vehicles	7.7%		0.7%				1.0%	13.7%			7.2%	4.9 %

Intersection: Church Street/Newtown Road & Valley Avenue Count Date: 12/09/15 P.M. Peak-Hour: 4:45 - 5:45 PM Peak Hour Factor: 0.92

	Pa	rk Drivev	vay	V	alley Av	'e		Church S	it .	N	ewtown	Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	3	1	4	51	0	356	0	291	84	582	453	3
Cars	3	1	4	50	0	350	0	289	83	566	446	3
Trucks	0	0	0	1	0	6	0	2	1	16	7	0
% Heavy Vehicles	0.0%	0.0%	0.0%	2.0%		1.7%		0.7%	1.2%	2.7%	1.5%	0.0%

Intersection: Wooster Road & Red Bank Road/Wooster Pike Count Date: 11/17/15 P.M. Peak-Hour: 4:30 - 5:30 PM Peak Hour Factor: 0.93

	Re	ed Bank	Rd	W	ooster Pi	ke	v	/ooster R	۱d			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	70	701	142	37	0	412	0	172	0	0	0
Cars	0	63	670	131	28	0	401	0	168	0	0	0
Trucks	0	7	31	11	9	0	11	0	4	0	0	0
% Heavy Vehicles		10.0%	4.4%	7.7%	24.3%		2.7%		2.3%			

Intersection: Red Bank Road & Colbank Road Count Date: 02/17/16 P.M. Peak-Hour: 4:30 - 5:30 PM Peak Hour Factor: 0.95

				С	olbank I	۲d	Re	ed Bank	Rd	Re	ed Bank	Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	0	0	9	0	422	0	512	21	568	764	0
Cars	0	0	0	9	0	412	0	497	21	561	743	0
Trucks	0	0	0	0	0	10	0	15	0	7	21	0
% Heavy Vehicles				0.0%		2.4%		2.9%	0.0%	1.2%	2.7%	

Intersection: US-50 & Meadowlark Lane/Wooster Pike Count Date: 11/19/15 P.M. Peak-Hour: 5:00 - 6:00 PM Peak Hour Factor: 0.77

		US-50			US-50		Wooster Pike			Meadowlark Ln		
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	57	499	219	106	405	15	94	86	289	18	13	41
Cars	56	487	217	99	400	15	91	86	287	18	13	41
Trucks	1	12	2	7	5	0	3	0	2	0	0	0
% Heavy Vehicles	1.8%	2.4%	0.9%	6.6%	1.2%	0.0%	3.2%	0.0%	0.7%	0.0%	0.0%	0.0%

Intersection: US-50 & Watterson Road Count Date: 11/19/15 P.M. Peak-Hour: 5:00 - 6:00 PM Peak Hour Factor: 0.94

		US-50			US-50		Driveway			Watterson Rd		
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	26	963	0	1	576	78	2	0	3	273	1	74
Cars	26	948	0	1	563	77	2	0	3	273	1	73
Trucks	0	15	0	0	13	1	0	0	0	0	0	1
% Heavy Vehicles	0.0%	1.6%		0.0%	2.3%	1.3%	0.0%		0.0%	0.0%	0.0%	1.4%

Intersection: US-50 & Madisonville Road (WB Direction) Count Date: 12/01/15 P.M. Peak-Hour: 4:45 - 5:45 PM Peak Hour Factor: 0.92

					US-50					Ma	disonville	e Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	0	0	37	558	306	0	0	0	0	472	21
Cars	0	0	0	36	540	304	0	0	0	0	469	20
Trucks	0	0	0	1	18	2	0	0	0	0	3	1
% Heavy Vehicles				2.7%	3.2%	0.7%					0.6%	4.8%

Intersection: US-50 & Madisonville Road (EB Direction) Count Date: 12/01/15 P.M. Peak-Hour: 4:45 - 5:45 PM Peak Hour Factor: 0.98

		US-50						Miami Ro	d	Ma	disonville	e Rd
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	927	4	0	0	0	0	0	36	473	32	0
Cars	0	915	2	0	0	0	0	0	34	468	32	0
Trucks	0	12	2	0	0	0	0	0	2	5	0	0
% Heavy Vehicles		1.3%	50.0%						5.6%	1.1%	0.0%	

Intersection: US-50 & Miami Road (WB Direction) Count Date: 12/01/15 P.M. Peak-Hour: 4:45 - 5:45 PM Peak Hour Factor: 0.93

					US-50		Miami Rd		4	Miami Rd		
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	0	0	0	747	5	49	116	0	0	0	112
Cars	0	0	0	0	730	5	47	116	0	0	0	110
Trucks	0	0	0	0	17	0	2	0	0	0	0	2
% Heavy Vehicles					2.3%	0.0%	4 .1%	0.0%				1.8%

Intersection: US-50 & Pocahontas Avenue Count Date: 05/10/17 P.M. Peak-Hour: 4:45 - 5:45 PM Peak Hour Factor: 0.93

		US-50			US-50			Pocahontas Ave			Pocahontas Ave		
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Cars and Trucks	44	1279	4	3	796	98	4	0	6	144	5	36	
Cars	44	1260	4	3	788	97	4	0	6	144	5	36	
Trucks	0	19	0	0	8	1	0	0	0	0	0	0	
% Heavy Vehicles	0.0%	1.5%	0.0%	0.0%	1.0%	1.0%	0.0%		0.0%	0.0%	0.0%	0.0%	

Intersection: US-50 & Mariemont Promenade Shopping Center Count Date: 05/10/17 P.M. Peak-Hour: 4:45 - 5:45 PM Peak Hour Factor: 0.91

		US-50			US-50		Shopping Center Dwy		er Dwy			
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	1421	44	18	868	0	18	0	31	0	0	0
Cars	0	1405	44	18	858	0	18	0	31	0	0	0
Trucks	0	16	0	0	10	0	0	0	0	0	0	0
% Heavy Vehicles		1.1%	0.0%	0.0%	1.2%		0.0%		0.0%			

Intersection: US-50 & Spring Hill Drive/Miami Run Count Date: 05/25/17 P.M. Peak-Hour: 5:00 - 6:00 PM Peak Hour Factor: 0.96

		US-50			US-50		٨	Aiami Ru	n	Sp	oring Hill	Dr
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	6	1163	165	41	682	1	151	2	56	3	2	0
Cars	6	1154	165	41	677	1	150	2	56	3	2	0
Trucks	0	9	0	0	5	0	1	0	0	0	0	0
% Heavy Vehicles	0%	0.8%	0.0%	0.0%	0.7%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	

Intersection: US-50 & Walton Creek Road Count Date: 11/24/15 P.M. Peak-Hour: 4:45 - 5:45 PM Peak Hour Factor: 0.99

		US-50			US-50		Walton Creek Rd			Walton Creek Rd		
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	39	1058	46	69	597	144	35	43	89	357	41	33
Cars	38	1038	46	69	579	143	35	43	89	352	41	33
Trucks	1	20	0	0	18	1	0	0	0	5	0	0
% Heavy Vehicles	2.6%	1. 9 %	0.0%	0.0%	3.0%	0.7%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%

Intersection: US-50 & Newtown Road Count Date: 11/24/15 P.M. Peak-Hour: 5:00 - 6:00 PM Peak Hour Factor: 0.99

		US-50			US-50		Newtown Rd					
Existing	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Cars and Trucks	0	554	873	85	279	0	521	0	98	0	0	0
Cars	0	549	856	83	275	0	515	0	95	0	0	0
Trucks	0	5	17	2	4	0	6	0	3	0	0	0
% Heavy Vehicles		0.9%	1.9%	2.4%	1.4%		1.2%		3.1%			











APPENDIX D



		SECTION:	SR 32 @) Clough	Pike					
	MAINTAINING	AGENCT.		ENTRY	VES	РНА	SES		2.6	
<u>S1</u>	ART UP		REST	IN RED:	TLS	RING 1			RING 2	NO
START IN: TIME FOR FLASH OR	ALL RE	D 6	OVERLA	AP			A	В	C	D
FIRST PHASE(S): COLOR DISPLAYED:	2, 6 GREEN	I	PHASES	6			-	-	-	-
INTERVAL OR FEATU					CONT	ROLLER	NOVEME	NT NO.		
INTERSECTION MOVE		1	2	3	4	5	6	7	8	
DIRECTION		-	EB	-	-	-	WB	-	NB	
MINIMUM GREEN (INI	(SEC.)	-	20	-	-	-	20	-	10	
ADDED INITIAL	*(SEC./AC	TUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL		(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRES	SET GAP)	(SEC.)	-	5	-	-	-	5	-	4
TIME BEFORE REDUC	CTION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	-	60	-	-	-	60	-	60
MAXIMUM GREEN II		(SEC.)	-	75	-	-	-	75		75
YELLOW CHANGE		(SEC.)	-	5	-	-	-	5	-	5
ALL RED CLEARANCE		(SEC.)	-	1.5	-	-	-	1.5	-	1.5
WALK		(SEC.)	-	-	-	-	-	-	-	-
PEDESTRIAN CLEARA	ANCE	(SEC.)	-	-	-	-	-	-	-	-
	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
RECALL	MINIMUM	(ON/OFF)	-	ON	-	-	-	ON	-	-
PEDESTRIAN (ON/OFF)			-	-	-	-	-	-	-	-
MEMORY	IEMORY (ON/OFF				-	-	-	-	-	-

ECONOLITE COORD SETTINGS									
MANUAL PATTERN	FREE								
SYSTEM SOURCE	SYS								
SPLITS IN	SECONDS								
TRANSITION	SMOOTH								
DWELL/ADD TIME	0								
OFFSET REFERNECE	YELLOW								
PED RECALL	NO								
CAL ZERO OVERRIDE	NO								
RE-SYNC COUNT	0								
ECPI COORD	YES								
SYSTEM FORMAT	STD								
OFFSET IN	SECONDS								
MAX SELECT	MAXINH								
FORCE OFF	FLOAT								
USE PED TIME	YES								
PED RESERVICE	NO								
FO ADD INI GRN	NO								
MULTISYNC	NO								

SIEMENS COORD	SETTINGS
OPERATION	0 - FREE
MODE (NORMAL)	0 - PERMISSIVE
MAXIMUM	0 - INHIBIT
CORRECTION	2 - SHORT WAY
OFFSET MODE	1 - END GREEN
FORCE MODE	2 - FLOATING
MAX DWELL TIME	-
YIELD PERIOD	-
MANUAL CONTROL: DIAL	-
MANUAL CONTROL: SPLIT	-
MANUAL CONTROL: OFFSET	_

Eastern Corridor II/III Signal Timing Updates Signal Timing Summary - EXISTING

&

General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

φ2

END OF GREEN / BEGINNING OF YELLOW φ6

2. All offsets are measured from

COORDINATION TIMING PLANS HOURS CYCLE/SPLIT/OFFSET DAY(S) OF WEEK PLAN NAME **CYCLE LENGTH (SEC)** ---

SR 32 @ Clough Pike												
PHASE	1	2	3	4	5	6	7	8	OFESET 4	OFFSET 2		
DIRECTION	-	-	-	-	-	-	-	-				
PLAN NO.				(320)) (SEC)							
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		

Eastern Corridor II/III Signal Timing Updates Signal Timing Summary - PROPOSED

&

φ2

General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ6

 $\label{eq:alpha} \textbf{2. All offsets are measured from}$

COORDINATION TIMING PLANS										
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						

SR 32 @ Clough Pike											
PHASE	1	2	3	4	5	6	7	8	OFESET 1	OFFSET 2	
DIRECTION	-	-	-	-	-	-	-	-			
PLAN NO.	SPLITS (G+Y+AR) IN SECONDS (SEC)										
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	

	INTER	RSECTION:	SR 32 @) Church	Street					
	MAINIAINING	AGENCY:	BUAL				0=0			
ST	ART UP		DUAL	ENTRY:	YES		SES:		2,4,6,8	
		-	REST	IN RED:		RING 1	NO	I	RING 2	NO
TIME FOR FLASH OR	ALL RED:	:D 6	OVERLA	٨P			Α	В	С	D
FIRST PHASE(S)	2.6	Ũ								
	GREEN	N	PHASES -					_	-	-
COLOR DIOI LATED.		-								
INTERVAL OR FEATU	RE				CONTR	ROLLER	MOVEME	NT NO.		
INTERSECTION MOVE	EMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION	WBL	EB	SBL	NB	EBL	WB	-	SB		
MINIMUM GREEN (INI	7	20	7	10	7	20	-	10		
ADDED INITIAL	*(SEC./AC	CTUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL (SEC.)			-	-	-	-	•	-	-	-
PASSAGE TIME (PRES	SET GAP)	(SEC.)	3.0	3.0	4.0	3.0	3.0	3.0	-	3.0
TIME BEFORE REDUC	TION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	15	60	15	45	15	60	-	45
MAXIMUM GREEN II		(SEC.)	20	75	20	60	20	75	-	60
YELLOW CHANGE		(SEC.)	3.0	3.5	3.0	3.5	3.0	3.5	-	3.5
ALL RED CLEARANCE		(SEC.)	2.5	1.5	1.0	1.0	2.5	1.5	-	1.0
WALK		(SEC.)	-	11	-	10	-	10	-	10
PEDESTRIAN CLEARA	NCE	(SEC.)	-	20	-	19	-	12	-	12
	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
RECALL	MINIMUM	(ON/OFF)	-	ON	-	-	-	ON	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-

ECONOLITE COOF	RD SETTINGS
MANUAL PATTERN	FREE
SYSTEM SOURCE	SYS
SPLITS IN	SECONDS
TRANSITION	SMOOTH
DWELL/ADD TIME	0
OFFSET REFERNECE	YELLOW
PED RECALL	NO
CAL ZERO OVERRIDE	NO
RE-SYNC COUNT	0
ECPI COORD	YES
SYSTEM FORMAT	STD
OFFSET IN	SECONDS
MAX SELECT	MAXINH
FORCE OFF	FLOAT
USE PED TIME	YES
PED RESERVICE	NO
FO ADD INI GRN	NO
MULTISYNC	NO

SIEMENS COORD	SIEMENS COORD SETTINGS									
OPERATION	1 - AUTO									
MODE (NORMAL)	0 - PERMISSIVE									
MAXIMUM	0 - INHIBIT									
CORRECTION	2 - SHORT WAY									
OFFSET MODE	1 - END GREEN									
FORCE MODE	2 - FLOATING									
MAX DWELL TIME	-									
YIELD PERIOD	-									
MANUAL CONTROL: DIAL	-									
MANUAL CONTROL: SPLIT	-									
MANUAL CONTROL: OFFSET	-									

Eastern Corridor II/III Signal Timing Updates Signal Timing Summary - EXISTING

&

φ2

General Notes:

1. All offsets are measured from the referenced phase

END OF GREEN / BEGINNING OF YELLOW φ 6

COORDINATION TIMING PLANS										
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)						
2,3,4,5,6	1	600	3	180						
2,3,4,5,6	2	830	20	FREE						
2,3,4,5,6	3	1430	3	180						
2,3,4,5,6	4	1800	20	FREE						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						

			S	SR 32 @ (Church S	treet								
PHASE	1	2	3	4	5	6	7	8	OFFRET 4	OFFSET 2				
DIRECTION	WBL	EB	SBL	NB	EBL	WB	-	SB						
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS								
3	15	65	50	50	15	65	-	100	0	-				
-	-	-	-	-	-	-	-	-	-	-				
-	-	-	-	-	-	-	-	-	-	-				
-	-	-	-	-	-	-	-	-	-	-				
-	-	-	-	-	-	-	-	-	-	-				

Eastern Corridor II/III Signal Timing Updates Signal Timing Summary - PROPOSED

&

φ2

General Notes:

1. All offsets are measured from the referenced phase

END OF GREEN / BEGINNING OF YELLOW φ 6

COORDINATION TIMING PLANS										
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)						
2,3,4,5,6	OVERNIGHT	0000-0530	-	FREE						
2,3,4,5,6	AM	0530-0642	1	120						
2,3,4,5,6	AM	0642-0812	11	180						
2,3,4,5,6	AM	0812-0930	1	120						
2,3,4,5,6	MID	0930-1400	2	100						
2,3,4,5,6	РМ	1400-1618	3	120						
2,3,4,5,6	РМ	1618-1818	13	180						
2,3,4,5,6	РМ	1818-1900	3	120						
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE						
1,7	OVERNIGHT	0000-0900	-	FREE						
1,7	WEEKEND	0900-1900	4	100						
1,7	OVERNIGHT	1900-0000	-	FREE						
-	-	-	-	-						

	SR 32 @ Church Street												
PHASE	1	2	3	4	5	6	7	8	OFESET 4	OFFSET 2			
DIRECTION	WBL	EB	SBL	NB	EBL	WB	-	SB					
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(320)			
1	14	55	12	39	14	55	0	51	105	-			
11	14	95	16	55	14	95	0	71	112	-			
2	14	40	13	33	14	40	0	46	0	-			
3	14	57	14	35	14	57	0	49	0	-			
13	16	83	25	56	15	84	0	81	0	-			
4	14	40	14	32	14	40	0	46	0	-			
-	-	-	-	-	-	-	-	-	-	-			

		RSECTION:	SR 32 @	Roundb	ottom Ro	oad/River	Hills Dri	ve		
	MAINTAINING	AGENCT.			VEQ	рна			2468	
<u>S1</u>	ART UP		REST		TES				2,4,0,0	NO
START IN		п								
TIME FOR FLASH OR	ALL RED:	6	OVERLAP				Α	В	С	D
FIRST PHASE(S):	2.6	v								
COLOR DISPLAYED:	GREEN	ı	PHASES					-	-	
INTERVAL OR FEATU	RE				CONTR	ROLLER	NOVEME	NT NO.		<u> </u>
INTERSECTION MOVE	MENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION	WBL	EB	SBL	NB	EBL	WB	NBL	SB		
MINIMUM GREEN (INI	7	20	7	10	7	20	7	10		
ADDED INITIAL	-	-	-	-	-	-	-	-		
MAXIMUM INITIAL (SEC.)			-	-	-	-	-	-	-	-
PASSAGE TIME (PRES	SET GAP)	(SEC.)	3.0	0.0	5.0	3.0	3.0	0.0	3.0	3.0
TIME BEFORE REDUC	TION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	15	60	30	45	15	60	15	45
MAXIMUM GREEN II		(SEC.)	20	75	45	60	20	75	20	60
YELLOW CHANGE		(SEC.)	3.0	3.5	3.0	3.5	3.0	3.5	3.0	3.5
ALL RED CLEARANCE		(SEC.)	2.0	2.5	3.0	1.5	2.0	2.5	3.0	1.5
WALK		(SEC.)	-	12	-	-	•	-	-	-
PEDESTRIAN CLEARA	NCE	(SEC.)	-	20	-	-	-	-	-	-
	MAXIMUM	(ON/OFF)	-	ON	-	-	-	ON	-	-
RECALL	MINIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY		(ON/OFF)	-	-	•	-	•	-	-	-

ECONOLITE COORD SETTINGS								
MANUAL PATTERN	FREE							
SYSTEM SOURCE	SYS							
SPLITS IN	SECONDS							
TRANSITION	SMOOTH							
DWELL/ADD TIME	0							
OFFSET REFERNECE	YELLOW							
PED RECALL	NO							
CAL ZERO OVERRIDE	NO							
RE-SYNC COUNT	0							
ECPI COORD	YES							
SYSTEM FORMAT	STD							
OFFSET IN	SECONDS							
MAX SELECT	MAXINH							
FORCE OFF	FLOAT							
USE PED TIME	YES							
PED RESERVICE	NO							
FO ADD INI GRN	NO							
MULTISYNC	NO							

SIEMENS COORD SETTINGS								
OPERATION	1 - AUTO							
MODE (NORMAL)	0 - PERMISSIVE							
MAXIMUM	0 - INHIBIT							
CORRECTION	2 - SHORT WAY							
OFFSET MODE	1 - END GREEN							
FORCE MODE	2 - FLOATING							
MAX DWELL TIME	-							
YIELD PERIOD	-							
MANUAL CONTROL: DIAL	-							
MANUAL CONTROL: SPLIT	_							
MANUAL CONTROL: OFFSET	-							

Eastern Corridor II/III Signal Timing Updates Signal Timing Summary - EXISTING

&

φ2

General Notes:

1. All offsets are measured from the referenced phase

END OF GREEN / BEGINNING OF YELLOW φ 6

2. All offsets are measured from

COORDINATION TIMING PLANS									
DAY(S) OF WEEK PLAN NAME HOURS CYCLE/SPLIT/OFFSET CYCLE LENGTH (SEC									
2,3,4,5,6	-	0600	3	185					
2,3,4,5,6	-	0830	20	FREE					
2,3,4,5,6	-	1430	3	185					
2,3,4,5,6	-	1800	20	FREE					
1,2,3,4,5,6,7	-	0000	20	FREE					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					

SR 32 @ Roundbottom Road/River Hills Drive PHASE 1 2 3 4 5 6 7 8 **OFFSET 1 OFFSET 2** DIRECTION NB SB WBL EΒ SBL EBL WB NBL (SEC) (SEC) SPLITS (G+Y+AR) IN SECONDS PLAN NO. 3 24 66 70 25 24 66 70 25 0 ---

Eastern Corridor II/III Signal Timing Updates Signal Timing Summary - PROPOSED

&

φ2

General Notes:

1. All offsets are measured from the referenced phase

END OF GREEN / BEGINNING OF YELLOW φ 6

COORDINATION TIMING PLANS									
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)					
2,3,4,5,6	OVERNIGHT	0000-0530	-	FREE					
2,3,4,5,6	AM	0530-0642	1	120					
2,3,4,5,6	AM	0642-0812	11	180					
2,3,4,5,6	AM	0812-0930	1	120					
2,3,4,5,6	MID	0930-1400	2	100					
2,3,4,5,6	PM	1400-1618	3	120					
2,3,4,5,6	PM	1618-1818	13	180					
2,3,4,5,6	PM	1818-1900	3	120					
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE					
1,7	OVERNIGHT	0000-0900	-	FREE					
1,7	WEEKEND	0900-1900	4	100					
1,7	OVERNIGHT	1900-0000	-	FREE					
-	-	-	-	-					

SR 32 @ Roundbottom Road/River Hills Drive										
PHASE	1	2	3	4	5	6	7	8	OFFRET 4	OFFRET 2
DIRECTION	WBL	EB	SBL	NB	EBL	WB	NBL	SB		UFFSET 2
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(320)
1	14	61	25	20	14	61	14	31	79	-
11	14	111	38	17	14	111	17	38	72	-
2	14	42	28	16	14	42	15	29	53	-
3	14	48	42	16	16	46	14	44	33	-
13	14	80	68	18	18	76	17	69	25	-
4	14	45	25	16	14	45	15	26	53	-
-	-	-	-	-	-	-	-	-	-	-

INTERSECTION: SR 32 @ Ivy Hills Place										
DUAL ENTRY: YES PHASES: 2.6										
<u>S1</u>	ART UP		REST	IN RED:	120	RING 1	NO		RING 2	NO
START IN: TIME FOR FLASH OR	ALL RE	D 6	OVERLA	A P			Α	В	с	D
FIRST PHASE(S): COLOR DISPLAYED:	2, 6 GREEN	1	PHASES			-	-	-	-	
INTERVAL OR FEATU	RE				CONTR	ROLLER	NOVEME	NT NO.		
INTERSECTION MOVE	EMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION			-	EB	-	NB	-	WB	-	-
MINIMUM GREEN (INI	TIAL)	(SEC.)	-	20	-	10	-	20	-	-
ADDED INITIAL	*(SEC./AC	TUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL		(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRES	SET GAP)	(SEC.)	-	4.0	-	3.0	-	4.0	-	-
TIME BEFORE REDUC	CTION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	-	60	-	45	-	60	-	-
MAXIMUM GREEN II		(SEC.)	-	75	-	60	-	75	-	-
YELLOW CHANGE		(SEC.)	-	4.0	-	3.0	-	4.0	-	-
ALL RED CLEARANCE		(SEC.)	-	1.0	-	1.5	-	1.0	-	-
WALK (SEC.)		-	-	-	9	-	-	-	-	
PEDESTRIAN CLEAR	ANCE	(SEC.)	-	-	-	10	-	-	-	-
MAXIMUM		(ON/OFF)	-	-	-	-	-	-	-	-
RECALL	MINIMUM	(ON/OFF)	-	ON	-	-	-	ON	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-

ECONOLITE COORD SETTINGS								
MANUAL PATTERN	FREE							
SYSTEM SOURCE	SYS							
SPLITS IN	SECONDS							
TRANSITION	SMOOTH							
DWELL/ADD TIME	0							
OFFSET REFERNECE	YELLOW							
PED RECALL	NO							
CAL ZERO OVERRIDE	NO							
RE-SYNC COUNT	0							
ECPI COORD	YES							
SYSTEM FORMAT	STD							
OFFSET IN	SECONDS							
MAX SELECT	MAXINH							
FORCE OFF	FLOAT							
USE PED TIME	YES							
PED RESERVICE	NO							
FO ADD INI GRN	NO							
MULTISYNC	NO							

SIEMENS COORD SETTINGS								
OPERATION	1 - AUTO							
MODE (NORMAL)	0 - PERMISSIVE							
MAXIMUM	0 - INHIBIT							
CORRECTION	2 - SHORT WAY							
OFFSET MODE	1 - END GREEN							
FORCE MODE	2 - FLOATING							
MAX DWELL TIME	-							
YIELD PERIOD	-							
MANUAL CONTROL: DIAL	-							
MANUAL CONTROL: SPLIT	-							
MANUAL CONTROL: OFFSET	_							

Eastern Corridor Signal Timing Updates Signal Timing Summary - EXISTING

&

General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

φ2

END OF GREEN / BEGINNING OF YELLOW φ 6

COORDINATION TIMING PLANS									
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)					
2,3,4,5,6	-	0000	100	MAX1					
2,3,4,5,6	-	0630	101	MAX2					
2,3,4,5,6	-	0800	100	MAX1					
1,7	-	0000	100	MAX1					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					

SR 32 @ Ivy Hills Place										
PHASE	1	2	3	4	5	6	7	8	OFESET 1	OFESET 2
DIRECTION	-	-	-	-	-	-	-	-		
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(320)
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

Eastern Corridor Signal Timing Updates Signal Timing Summary - PROPOSED

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOV φ 6

COORDINATION TIMING PLANS									
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)					
2,3,4,5,6	OVERNIGHT	0000-0530	-	FREE					
2,3,4,5,6	AM	0530-0642	1	120					
2,3,4,5,6	AM	0642-0800	11	180					
2,3,4,5,6	AM	0800-0930	1	120					
2,3,4,5,6	MID	0930-1400	-	FREE					
2,3,4,5,6	РМ	1400-1618	3	120					
2,3,4,5,6	РМ	1618-1818	13	180					
2,3,4,5,6	РМ	1818-1900	3	120					
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE					
1,7	OVERNIGHT	0000-0000	-	FREE					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					

SR 32 @ Ivy Hills Place										
PHASE	1	2	3	4	5	6	7	8		OFESET 2
DIRECTION	-	EB	-	NB	-	WB	-	-		UFFSET 2
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(320)
1	-	95	-	25	-	95	-	-	33	-
11	-	153	-	27	-	153	-	-	43	-
3	-	95	-	25	-	95	-	-	112	-
13	-	152	-	28	-	152	-	-	141	-
-	-	-	-	-	-	-	-	-	-	-

INTERSECTION: SR 32 @ Little Dry Run										
		DUAI		VES	РНА	SES		2.6		
<u>S1</u>	ART UP		REST	IN RED:	110	RING 1			RING 2	NO
START IN: TIME FOR FLASH OR	ALL REI ALL RED:	ALL RED LL RED: 6		OVERLAP				В	С	D
FIRST PHASE(S): COLOR DISPLAYED:	2, 6 GREEN		PHASES		-	-	-	-		
INTERVAL OR FEATU	RE				CONTR	ROLLER	NOVEME	NT NO.		
INTERSECTION MOVE	EMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION			WBL	EB	-	NB	-	WB	-	-
MINIMUM GREEN (INI	TIAL)	(SEC.)	7	20	-	10	-	20	-	-
ADDED INITIAL	*(SEC./AC	TUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL		(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)			3	5.0	-	3.0	-	5.0	-	-
TIME BEFORE REDUC	CTION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	15	60	-	45	-	60	-	-
MAXIMUM GREEN II		(SEC.)	20	75	-	60	-	75	-	-
YELLOW CHANGE		(SEC.)	3.5	5.0	-	3.5	-	5.0	-	-
ALL RED CLEARANCE		(SEC.)	1.5	1.0	-	1.5	-	1.0	-	-
WALK		(SEC.)	-	-	-	-	-	-	-	-
PEDESTRIAN CLEAR	ANCE	(SEC.)	-	-	-	-	-	-	-	-
	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
RECALL	MINIMUM	(ON/OFF)	-	ON	-	-	-	ON	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-

ECONOLITE COORD SETTINGS						
MANUAL PATTERN	FREE					
SYSTEM SOURCE	SYS					
SPLITS IN	SECONDS					
TRANSITION	SMOOTH					
DWELL/ADD TIME	0					
OFFSET REFERNECE	YELLOW					
PED RECALL	NO					
CAL ZERO OVERRIDE	NO					
RE-SYNC COUNT	0					
ECPI COORD	YES					
SYSTEM FORMAT	STD					
OFFSET IN	SECONDS					
MAX SELECT	MAXINH					
FORCE OFF	FLOAT					
USE PED TIME	YES					
PED RESERVICE	NO					
FO ADD INI GRN	NO					
MULTISYNC	NO					

SIEMENS COORD SETTINGS							
OPERATION	1 - AUTO						
MODE (NORMAL)	0 - PERMISSIVE						
MAXIMUM	0 - INHIBIT						
CORRECTION	2 - SHORT WAY						
OFFSET MODE	1 - END GREEN						
FORCE MODE	2 - FLOATING						
MAX DWELL TIME	-						
YIELD PERIOD	-						
MANUAL CONTROL: DIAL	-						
MANUAL CONTROL: SPLIT	_						
MANUAL CONTROL: OFFSET	_						

Eastern Corridor II/III Signal Timing Updates Signal Timing Summary - EXISTING

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ6

COORDINATION TIMING PLANS									
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)					
2,3,4,5,6	-	0000	100	MAX1					
2,3,4,5,6	-	0630	101	MAX2					
2,3,4,5,6	-	0800	100	MAX1					
2,3,4,5,6	-	1530	101	MAX2					
2,3,4,5,6	-	1815	100	MAX1					
1,7	-	0000	100	MAX1					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					

SR 32 @ Little Dry Run											
PHASE	1	2	3	4	5	6	7	8	OFESET 1	OFFSET 2	
DIRECTION	-	-	-	-	-	-	-	-			
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(320)	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	

Eastern Corridor II/III Signal Timing Updates Signal Timing Summary - PROPOSED

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ 6

COORDINATION TIMING PLANS								
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)				
2,3,4,5,6	OVERNIGHT	0000-0530	-	FREE				
2,3,4,5,6	AM	0530-0642	1	120				
2,3,4,5,6	AM	0642-0800	11	180				
2,3,4,5,6	AM	0800-0930	1	120				
2,3,4,5,6	MID	0930-1400	-	FREE				
2,3,4,5,6	PM	1400-1618	3	120				
2,3,4,5,6	PM	1618-1818	13	180				
2,3,4,5,6	PM	1818-1900	3	120				
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE				
1,7	OVERNIGHT	0000-0000	-	FREE				
-	-	-	-	-				
-	-	-	-	-				
-	-	-	-	-				

			S	SR 32 @	Little Dry	[,] Run				
PHASE	1	2	3	4	5	6	7	8	OFFRET 4	OFFRET 2
DIRECTION	WBL	EB	-	NB	-	WB	-	-		
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(320)
1	14	79	0	27	0	93	0	0	13	-
11	14	129	0	37	0	143	0	0	163	-
3	14	79	0	27	0	93	0	0	13	-
13	15	135	0	30	0	150	0	0	156	-
-	-	-	-	-	-	-	-	-	_	-

INTERSECTION: Roundbottom Road at Valley Avenue										
				ENTRY:	YES	PHA	SES:		2.6	
<u></u> <u>ST</u>	ART UP		REST	IN RED:	120	RING 1	NO		RING 2	NO
START IN: TIME FOR FLASH OR :	ALL RED OR ALL RED: 6		OVERLA	NP			Α	В	С	D
FIRST PHASE(S): COLOR DISPLAYED:	2, 6 GREEN	l	PHASES	5			-	-	-	-
INTERVAL OR FEATU	RE				CONTF	ROLLER	MOVEME	NT NO.		
INTERSECTION MOVE	EMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION			-	NB	-	EB	NBL	SB	-	-
MINIMUM GREEN (INI	TIAL)	(SEC.)	-	20	-	10	7	20	-	-
ADDED INITIAL	*(SEC./AC	TUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL		(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)			-	-	-	4.5	5	-	-	-
TIME BEFORE REDUC	CTION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	-	60	-	45	30	60	-	-
MAXIMUM GREEN II		(SEC.)	-	75	-	60	45	75	-	-
YELLOW CHANGE		(SEC.)	-	4.0	-	3.0	3.5	4.0	-	-
ALL RED CLEARANCE		(SEC.)	-	1.0	-	2.0	1.5	1.0	-	-
WALK		(SEC.)	-	-	-	-	-	-	-	-
PEDESTRIAN CLEARA	ANCE	(SEC.)	-	-	-	-	-	-	-	-
	MAXIMUM	(ON/OFF)	-	ON	-	-	-	ON	-	-
RECALL	MINIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-

ECONOLITE COORD SETTINGS						
MANUAL PATTERN	FREE					
SYSTEM SOURCE	SYS					
SPLITS IN	SECONDS					
TRANSITION	SMOOTH					
DWELL/ADD TIME	0					
OFFSET REFERNECE	YELLOW					
PED RECALL	NO					
CAL ZERO OVERRIDE	NO					
RE-SYNC COUNT	0					
ECPI COORD	YES					
SYSTEM FORMAT	STD					
OFFSET IN	SECONDS					
MAX SELECT	MAXINH					
FORCE OFF	FLOAT					
USE PED TIME	YES					
PED RESERVICE	NO					
FO ADD INI GRN	NO					
MULTISYNC	NO					

SIEMENS COORD SETTINGS							
OPERATION	1 - AUTO						
MODE (NORMAL)	0 - PERMISSIVE						
MAXIMUM	0 - INHIBIT						
CORRECTION	2 - SHORT WAY						
OFFSET MODE	1 - END GREEN						
FORCE MODE	2 - FLOATING						
MAX DWELL TIME	-						
YIELD PERIOD	-						
MANUAL CONTROL: DIAL	-						
MANUAL CONTROL: SPLIT	_						
MANUAL CONTROL: OFFSET	_						

Eastern Corridor II/III Signal Timing Updates Signal Timing Summary - EXISTING

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ 6

2. All offsets are measured from

COORDINATION TIMING PLANS									
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)					
1,2,3,4,5,6,7	-	0700	1	110					
1,2,3,4,5,6,7	-	0900	20	FREE					
1,2,3,4,5,6,7	-	1600	2	120					
1,2,3,4,5,6,7	-	1800	20	FREE					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					

Roundbottom Road at Valley Avenue PHASE 1 2 3 4 5 6 7 8 OFFSET 1 OFFSET 2 DIRECTION EB NB NBL SB ----(SEC) (SEC) SPLITS (G+Y+AR) IN SECONDS PLAN NO. 1 0 47 0 63 20 27 0 0 83 -2 0 70 0 50 20 50 0 0 120 ----------------------------------

Eastern Corridor II/III Signal Timing Updates Signal Timing Summary - PROPOSED

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ6

COORDINATION TIMING PLANS									
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)					
2,3,4,5,6	OVERNIGHT	0000-0530	-	FREE					
2,3,4,5,6	AM	0530-0930	1	120					
2,3,4,5,6	MID	0930-1400	2	100					
2,3,4,5,6	РМ	1400-1900	3	120					
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE					
1,7	OVERNIGHT	0000-0000	-	FREE					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					

Roundbottom Road at Valley Avenue										
PHASE	1	2	3	4	5	6	7	8	OFESET 1	
DIRECTION	-	NB	-	EB	NBL	SB	-	-		
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(320)
1	0	95	0	25	53	42	0	0	0	-
2	0	70	0	30	20	50	0	0	0	-
3	0	72	0	48	26	46	0	0	6	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

INTERSECTION: Church Street/Newtown Road @ Valley Avenue										
			DUALENTRY VES PHAS			SES: 2.4.6.8				
<u></u> <u>S1</u>	<u>ART UP</u>		REST	IN RED:		RING 1	NO		RING 2	NO
START IN: TIME FOR FLASH OR	ALL RED ALL RED:) 6	OVERLA	N P			Α	В	С	D
FIRST PHASE(S): COLOR DISPLAYED:	2, 6 GREEN		PHASES	5			-	-	-	-
INTERVAL OR FEATU	RE				CONTR	ROLLER	NOVEME	NT NO.		
INTERSECTION MOVE	EMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION			SBL	NB	-	WB	-	SB	-	EB
MINIMUM GREEN (INI	TIAL)	(SEC.)	7	20	-	10	-	20	-	10
ADDED INITIAL	*(SEC./AC	TUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL		(SEC.)	-	-	•	-	-	-	-	-
PASSAGE TIME (PRES	SET GAP)	(SEC.)	3.0	4.0	•	5.0	-	3.0	-	5.0
TIME BEFORE REDUC	CTION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	•	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	30	60	-	45	-	60	-	45
MAXIMUM GREEN II		(SEC.)	45	75	-	60	-	75	-	60
YELLOW CHANGE		(SEC.)	3.5	3.5	-	3.5	-	3.5	-	3.5
ALL RED CLEARANCE		(SEC.)	1.5	1.5	-	1.5	-	1.5	-	1.5
WALK		(SEC.)	-	10	-	15	-	9	-	12
PEDESTRIAN CLEARA	ANCE	(SEC.)	-	17	-	12	-	13	-	9
	MAXIMUM	(ON/OFF)	ON	ON	-	-	-	ON	-	-
RECALL	MINIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-

ECONOLITE COORD SETTINGS						
MANUAL PATTERN	FREE					
SYSTEM SOURCE	SYS					
SPLITS IN	SECONDS					
TRANSITION	SMOOTH					
DWELL/ADD TIME	0					
OFFSET REFERNECE	YELLOW					
PED RECALL	NO					
CAL ZERO OVERRIDE	NO					
RE-SYNC COUNT	0					
ECPI COORD	YES					
SYSTEM FORMAT	STD					
OFFSET IN	SECONDS					
MAX SELECT	MAXINH					
FORCE OFF	FLOAT					
USE PED TIME	YES					
PED RESERVICE	NO					
FO ADD INI GRN	NO					
MULTISYNC	NO					

SIEMENS COORD SETTINGS							
OPERATION	1 - AUTO						
MODE (NORMAL)	0 - PERMISSIVE						
MAXIMUM	0 - INHIBIT						
CORRECTION	2 - SHORT WAY						
OFFSET MODE	1 - END GREEN						
FORCE MODE	2 - FLOATING						
MAX DWELL TIME	-						
YIELD PERIOD	-						
MANUAL CONTROL: DIAL	-						
MANUAL CONTROL: SPLIT	_						
MANUAL CONTROL: OFFSET	_						

Eastern Corridor II/III Signal Timing Updates Signal Timing Summary - EXISTING

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ 6

COORDINATION TIMING PLANS								
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)				
1,2,3,4,5,6,7	-	0700	100	MAX1				
1,2,3,4,5,6,7	-	0900	100	MAX1				
1,2,3,4,5,6,7	-	1600	101	MAX2				
1,2,3,4,5,6,7	-	1800	100	MAX1				
-	-	-	-	-				
-	-	-	-	-				
-	-	-	-	-				
-	-	-	-	-				
-	-	-	-	-				

Church Street/Newtown Road @ Valley Avenue										
PHASE	1	2	3	4	5	6	7	8	OFESET 1	OFFORT A
DIRECTION	-	-	-	-	-	-	-	-		UFFSET 2
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(SEC)	(320)
-	-	-	-	-	-	-	-	-	83	-
-	-	-	-	-	-	-	-	-	120	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

Eastern Corridor II/III Signal Timing Updates Signal Timing Summary - PROPOSED

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ6

COORDINATION TIMING PLANS									
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)					
2,3,4,5,6	OVERNIGHT	0000-0530	-	FREE					
2,3,4,5,6	AM	0530-0930	1	120					
2,3,4,5,6	MID	0930-1400	2	100					
2,3,4,5,6	РМ	1400-1900	3	120					
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE					
1,7	OVERNIGHT	0000-0000	-	FREE					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					

Church Street/Newtown Road @ Valley Avenue										
PHASE	1	2	3	4	5	6	7	8	OFFRET 4	OFFRET 2
DIRECTION	SBL	NB	-	WB	-	SB	-	EB		UFFSET 2
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(320)
1	25	40	0	55	0	65	0	55	18	-
2	20	50	0	30	0	70	0	30	94	-
3	45	40	0	35	0	85	0	35	5	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

	INTERSECTION: Wooster Road @ Wooster Pike/Red Bank Road									
	MAINTAINING	AGENCT.			VES	РНА	SES		2.6	
<u>ST</u>	TART UP		REST	IN RED:	110		NO		RING 2	NO
START IN: TIME FOR FLASH OR	ALL REI ALL RED:	С 6	OVERLA	NP			A	В	С	D
FIRST PHASE(S): COLOR DISPLAYED:	2, 6 GREEN	l	PHASES	5			1,3,4	2,3	-	-
INTERVAL OR FEATU	RE				CONTR	ROLLER	NOVEME	NT NO.		
INTERSECTION MOVE	EMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION			WBL	EB	NB	PED	-	WB	-	-
MINIMUM GREEN (INI	TIAL)	(SEC.)	7	20	7	1	-	20	-	-
ADDED INITIAL	*(SEC./AC	TUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL		(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRES	SET GAP)	(SEC.)	2.0	1.5	2.0	-	-	3.0	-	-
TIME BEFORE REDUC	TION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	15	60	60	35	-	60	-	-
MAXIMUM GREEN II		(SEC.)	20	75	75	35	-	75	-	-
YELLOW CHANGE		(SEC.)	3.5	4.0	3.5	3.0	-	4.0	-	-
ALL RED CLEARANCE		(SEC.)	2	1.5	3	1.0	-	1.5	-	-
WALK		(SEC.)	-	-	-	10	-	-	-	-
PEDESTRIAN CLEAR	ANCE	(SEC.)	-	-	-	19	-	-	-	-
	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
RECALL	MINIMUM	(ON/OFF)	-	ON	-	-	-	ON	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-

ECONOLITE COORD SETTINGS							
MANUAL PATTERN	FREE						
SYSTEM SOURCE	SYS						
SPLITS IN	SECONDS						
TRANSITION	SMOOTH						
DWELL/ADD TIME	0						
OFFSET REFERNECE	YELLOW						
PED RECALL	NO						
CAL ZERO OVERRIDE	NO						
RE-SYNC COUNT	0						
ECPI COORD	YES						
SYSTEM FORMAT	STD						
OFFSET IN	SECONDS						
MAX SELECT	MAXINH						
FORCE OFF	FLOAT						
USE PED TIME	YES						
PED RESERVICE	NO						
FO ADD INI GRN	NO						
MULTISYNC	NO						

SIEMENS COORD SETTINGS							
OPERATION	1 - AUTO						
MODE (NORMAL)	0 - PERMISSIVE						
MAXIMUM	0 - INHIBIT						
CORRECTION	2 - SHORT WAY						
OFFSET MODE	1 - END GREEN						
FORCE MODE	2 - FLOATING						
MAX DWELL TIME	-						
YIELD PERIOD	-						
MANUAL CONTROL: DIAL	-						
MANUAL CONTROL: SPLIT	-						
MANUAL CONTROL: OFFSET	_						
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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ6

2. All offsets are measured from

COORDINATION TIMING PLANS							
DAY(S) OF WEEK	OF WEEK PLAN NAME HOURS CYCLE/SPLIT/OFFSET CYCLE LE						
-	-	-	-	-			
-	-	-	-	-			
-	-	-	-	-			
-	-	-	-	-			
-	-	-	-	-			
-	-	-	-	-			
-	-	-	-	-			
-	-	-	-	-			
-	-	-	-	-			

Wooster Road @ Wooster Pike/Red Bank Road PHASE 1 2 3 4 5 6 7 8 OFFSET 1 OFFSET 2 DIRECTION --------(SEC) (SEC) SPLITS (G+Y+AR) IN SECONDS PLAN NO. ---

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOV φ6

COORDINATION TIMING PLANS							
DAY(S) OF WEEK	EK PLAN NAME HOURS CYCLE/SPLIT/OFFSET CYCLE LENGTH (SEC						
2,3,4,5,6	OVERNIGHT	0000-0600	-	FREE			
2,3,4,5,6	AM	0600-0930	1	120			
2,3,4,5,6	MID	0930-1400	-	FREE			
2,3,4,5,6	PM	1400-1900	3	120			
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE			
1,7	OVERNIGHT	0000-0000	-	FREE			
-	-	-	-	-			
-	-	-	-	-			
-	-	-	-	-			

Wooster Road @ Wooster Pike/Red Bank Road											
PHASE	1	2	3	4	5	6	7	8	OFESET 1	OFESET 2	
DIRECTION	WBL	EB	NB	PED	-	WB	-	-			
PLAN NO.				(320)	(320)						
1	14	28	68	10	0	42	0	0	81	-	
-	-	-	-	-	-	-	-	-	-	-	
3	20	28	62	10	0	48	0	0	43	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	_	

	INTERSECTION: Red Bank Road @ Colbank Road									
		AGLINCT.				SES: 26				
<u>START UP</u>			REST	IN RED:	TLO	RING 1			RING 2	NO
START IN: TIME FOR FLASH OR J	ALL RED ALL RED:) 6	OVERLA	P			Α	В	С	D
FIRST PHASE(S): COLOR DISPLAYED:	2, 6 GREEN		PHASES	5			1,4	-	-	-
INTERVAL OR FEATU	RE				CONTR	ROLLER	NOVEME	NT NO.		
INTERSECTION MOVE	MENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION			SBL	NB	-	WB	-	SB	-	-
MINIMUM GREEN (INI	TIAL)	(SEC.)	7	35	-	10	-	35	-	-
ADDED INITIAL	*(SEC./AC	TUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL		(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRES	SET GAP)	(SEC.)	3.0	3.0	-	3.0	-	3.0	-	-
TIME BEFORE REDUC	TION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	30	60	-	45	-	60	-	-
MAXIMUM GREEN II		(SEC.)	45	75	-	60	-	75	-	-
YELLOW CHANGE		(SEC.)	3.5	4.0	-	3.5	-	4.0	-	-
ALL RED CLEARANCE		(SEC.)	1.5	1.5	-	1.5	-	1.5	-	-
WALK		(SEC.)	-	-	-	-	-	-	-	-
PEDESTRIAN CLEARA	NCE	(SEC.)	-	-	-	-	-	-	-	-
	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
RECALL	MINIMUM	(ON/OFF)	-	ON	-	-	-	ON	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-

ECONOLITE COOF	RD SETTINGS
MANUAL PATTERN	FREE
SYSTEM SOURCE	SYS
SPLITS IN	SECONDS
TRANSITION	SMOOTH
DWELL/ADD TIME	0
OFFSET REFERNECE	YELLOW
PED RECALL	NO
CAL ZERO OVERRIDE	NO
RE-SYNC COUNT	0
ECPI COORD	YES
SYSTEM FORMAT	STD
OFFSET IN	SECONDS
MAX SELECT	MAXINH
FORCE OFF	FLOAT
USE PED TIME	YES
PED RESERVICE	NO
FO ADD INI GRN	NO
MULTISYNC	NO

SIEMENS COORD SETTINGS							
OPERATION	1 - AUTO						
MODE (NORMAL)	0 - PERMISSIVE						
MAXIMUM	0 - INHIBIT						
CORRECTION	2 - SHORT WAY						
OFFSET MODE	1 - END GREEN						
FORCE MODE	2 - FLOATING						
MAX DWELL TIME	-						
YIELD PERIOD	-						
MANUAL CONTROL: DIAL	-						
MANUAL CONTROL: SPLIT	_						
MANUAL CONTROL: OFFSET	_						

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOV φ 6

COORDINATION TIMING PLANS							
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)			
1,2,3,4,5,6,7	1	0000	0	FREE			
1,2,3,4,5,6,8	1	0630	1	100			
1,2,3,4,5,6,9	1	0900	0	FREE			
1,2,3,4,5,6,10	1	1130	2	70			
1,2,3,4,5,6,11	1	1300	0	FREE			
1,2,3,4,5,6,12	1	1530	3	80			
1,2,3,4,5,6,13	1	1830	0	FREE			
-	-	-	-	-			
-	-	-	-	-			

Red Bank Road @ Colbank Road											
PHASE	1	2	3	4	5	6	7	8	OFESET 1	OFESET 2	
DIRECTION	SBL	NB	-	WB	-	SB	-	-			
PLAN NO.	N NO. SPLITS (G+Y+AR) IN SECONDS										
1	15	40	0	45	0	55	0	0	0	-	
2	13	33	0	24	0	46	0	0	0	-	
3	20	34	0	26	0	54	0	0	0	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ6

COORDINATION TIMING PLANS								
DAY(S) OF WEEK	PLAN NAME HOURS CYCLE/SPLIT/OFFSET CYCLE LENGTH (SEC)							
2,3,4,5,6	OVERNIGHT	0000-0600	-	FREE				
2,3,4,5,6	AM	0600-0930	1	120				
2,3,4,5,6	MID	0930-1400	-	FREE				
2,3,4,5,6	РМ	1400-1900	3	120				
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE				
1,7	OVERNIGHT	0000-0000	-	FREE				
-	-	-	-	-				
-	-	-	-	-				
-	-	-	-	-				

Red Bank Road @ Colbank Road											
PHASE	1	2	3	4	5	6	7	8			
DIRECTION	SBL	NB	-	WB	-	SB	-	-			
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(320)	
1	20	50	0	50	0	70	0	0	45	-	
-	-	-	-	-	-	-	-	-	-	-	
3	42	56	0	22	0	98	0	0	28	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	

		SECTION:	US 50 @	Meadow	/lark Lan	ie					
		AGLINCT.	DUAI		VES	РНА	SES	SES: 2468			
START UP			REST	IN RED:	120	RING 1	NO		RING 2	NO	
START IN: TIME FOR FLASH OR :	ALL RED ALL RED:) 6	OVERLA	NP .			Α	В	С	D	
FIRST PHASE(S): COLOR DISPLAYED:	2, 6 GREEN		PHASES	5			1,6,8	-	-	-	
INTERVAL OR FEATU	RE				CONTF	ROLLER	MOVEME	NT NO.			
INTERSECTION MOVE	MENT (PHASE)		1	2	3	4	5	6	7	8	
DIRECTION			WBL	EB	-	SB	-	WB	-	NB	
MINIMUM GREEN (INI	TIAL)	(SEC.)	7	20	-	10	-	20	-	10	
ADDED INITIAL	*(SEC./AC	TUATION)	-	2	-	-	-	2	-	-	
MAXIMUM INITIAL		(SEC.)	-	30	-	-	-	30	-	-	
PASSAGE TIME (PRES	SET GAP)	(SEC.)	3.5	6.0	-	4.0	-	6.0	-	4.0	
TIME BEFORE REDUC	TION	*(SEC.)	-	20	-	-	-	20	-	-	
MINIMUM GAP		*(SEC.)	-	4.6	-	-	-	3.9	-	-	
TIME TO REDUCE		*(SEC.)	-	10	-	-	-	10	-	-	
MAXIMUM GREEN I		(SEC.)	15	60	-	45	-	60	-	45	
MAXIMUM GREEN II		(SEC.)	20	75	-	60	-	75	-	60	
YELLOW CHANGE		(SEC.)	3.5	4.0	-	4.0	-	4.0	-	4.0	
ALL RED CLEARANCE		(SEC.)	1.5	1.5	-	1.0	-	1.5	-	1.0	
WALK		(SEC.)	-	-	-	-	-	-	-	11	
PEDESTRIAN CLEARA	ANCE	(SEC.)	-	-	-	-	-	-	-	14	
	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-	
RECALL	MINIMUM	(ON/OFF)	-	ON	-	-	-	ON	-	-	
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-	
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-	

ECONOLITE COOF	RD SETTINGS
MANUAL PATTERN	FREE
SYSTEM SOURCE	SYS
SPLITS IN	SECONDS
TRANSITION	SMOOTH
DWELL/ADD TIME	0
OFFSET REFERNECE	YELLOW
PED RECALL	NO
CAL ZERO OVERRIDE	NO
RE-SYNC COUNT	0
ECPI COORD	YES
SYSTEM FORMAT	STD
OFFSET IN	SECONDS
MAX SELECT	MAXINH
FORCE OFF	FLOAT
USE PED TIME	YES
PED RESERVICE	NO
FO ADD INI GRN	NO
MULTISYNC	NO

SIEMENS COORD	SETTINGS
OPERATION	1 - AUTO
MODE (NORMAL)	0 - PERMISSIVE
MAXIMUM	0 - INHIBIT
CORRECTION	2 - SHORT WAY
OFFSET MODE	1 - END GREEN
FORCE MODE	2 - FLOATING
MAX DWELL TIME	-
YIELD PERIOD	-
MANUAL CONTROL: DIAL	-
MANUAL CONTROL: SPLIT	_
MANUAL CONTROL: OFFSET	_

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ 6

 $\label{eq:alpha} \mbox{ All offsets are measured from }$

COORDINATION TIMING PLANS										
DAY(S) OF WEEK	CYCLE LENGTH (SEC)									
1,2,3,4,5,6,7	100	0000	254	FREE						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						

US 50 @ Meadowlark Lane										
PHASE	1	2	3	4	5	6	7	8	OFESET 1	OFESET 2
DIRECTION	-	-	-	-	-	-	-	-		(SEC)
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(320)
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ6

COORDINATION TIMING PLANS									
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)					
2,3,4,5,6	OVERNIGHT	0000-0600	-	FREE					
2,3,4,5,6	AM	0600-0930	1	150					
2,3,4,5,6	MID	0930-1400	2	100					
2,3,4,5,6	РМ	1400-1900	3	150					
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE					
1,7	OVERNIGHT	0000-0000	-	FREE					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					

US 50 @ Meadowlark Lane										
PHASE	1	2	3	4	5	6	7	8	OFESET 1	OFESET 2
DIRECTION	WBL	EB	-	SB	-	WB	-	NB		(SEC)
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(SEC)
1	15	100	0	35	0	115	0	35	72	-
2	14	52	0	34	0	66	0	34	46	-
3	22	87	0	41	0	109	0	41	128	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

		SECTION:	US 50 @	Watters	on Blvd					
		AGENCT.			VES	РНА	SES		2468	
<u>ST</u>	ART UP		REST	IN RED:	TLS	RING 1			RING 2	NO
START IN: TIME FOR FLASH OR :	ALL REI ALL RED:	D 6	OVERLA	NP			A	В	C	D
FIRST PHASE(S): COLOR DISPLAYED:	2, 6 GREEN		PHASES				-	-	-	-
INTERVAL OR FEATU	RE				CONTR	ROLLER	MOVEME	NT NO.		
INTERSECTION MOVE	MENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION			-	EB	-	SB	-	WB	-	NB
MINIMUM GREEN (INI	-	20	-	10	-	20	-	10		
ADDED INITIAL *(SEC./ACTUATION)				2	-	-	-	2	-	-
MAXIMUM INITIAL (SEC.)				30	-	-	-	30	-	-
PASSAGE TIME (PRES	SET GAP)	(SEC.)	-	6.0	-	4.0	-	6.0	-	4.0
TIME BEFORE REDUC	TION	*(SEC.)	-	20	-	-	-	20	-	-
MINIMUM GAP		*(SEC.)	-	4.6	-	-	-	3.9	-	-
TIME TO REDUCE		*(SEC.)	-	10	-	-	-	10	-	-
MAXIMUM GREEN I		(SEC.)	-	60	-	45	-	60	-	45
MAXIMUM GREEN II		(SEC.)	-	75	-	60	-	75	-	60
YELLOW CHANGE		(SEC.)	-	3.5	-	3.0	-	3.5	-	3.0
ALL RED CLEARANCE		(SEC.)	-	1.0	-	1.5	-	1.0	-	1.5
WALK		(SEC.)	-	-	-	8	-	8	-	-
PEDESTRIAN CLEARA	NCE	(SEC.)	-	-	-	11	-	9	-	-
	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
RECALL	MINIMUM	(ON/OFF)	-	ON	-	-	-	ON	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-

ECONOLITE COOF	ECONOLITE COORD SETTINGS								
MANUAL PATTERN	FREE								
SYSTEM SOURCE	SYS								
SPLITS IN	SECONDS								
TRANSITION	SMOOTH								
DWELL/ADD TIME	0								
OFFSET REFERNECE	YELLOW								
PED RECALL	NO								
CAL ZERO OVERRIDE	NO								
RE-SYNC COUNT	0								
ECPI COORD	YES								
SYSTEM FORMAT	STD								
OFFSET IN	SECONDS								
MAX SELECT	MAXINH								
FORCE OFF	FLOAT								
USE PED TIME	YES								
PED RESERVICE	NO								
FO ADD INI GRN	NO								
MULTISYNC	NO								

SIEMENS COORD	SETTINGS
OPERATION	1 - AUTO
MODE (NORMAL)	0 - PERMISSIVE
MAXIMUM	0 - INHIBIT
CORRECTION	2 - SHORT WAY
OFFSET MODE	1 - END GREEN
FORCE MODE	2 - FLOATING
MAX DWELL TIME	-
YIELD PERIOD	-
MANUAL CONTROL: DIAL	-
MANUAL CONTROL: SPLIT	_
MANUAL CONTROL: OFFSET	_

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ 6

 $\label{eq:alpha} \mbox{ All offsets are measured from }$

COORDINATION TIMING PLANS										
DAY(S) OF WEEK	CYCLE LENGTH (SEC)									
1,2,3,4,5,6,7	100	0000	254	FREE						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						

US 50 @ Watterson Blvd										
PHASE	1	2	3	4	5	6	7	8	OFESET 1	OFESET 2
DIRECTION	-	-	-	-	-	-	-	-		
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(320)
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ6

COORDINATION TIMING PLANS										
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)						
2,3,4,5,6	OVERNIGHT	0000-0600	-	FREE						
2,3,4,5,6	AM	0600-0930	1	150						
2,3,4,5,6	MID	0930-1400	2	100						
2,3,4,5,6	PM	1400-1900	3	150						
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE						
1,7	OVERNIGHT	0000-0000	-	FREE						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						

US 50 @ Watterson Blvd										
PHASE	1	2	3	4	5	6	7	8	OFFRET 4	OFFRET 2
DIRECTION	-	EB	-	SB	-	WB	-	NB	UFFSEI 1	
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(SEC)
1	0	123	0	27	0	123	0	27	38	-
2	0	65	0	35	0	65	0	35	4	-
3	0	112	0	38	0	112	0	38	34	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

INTERSECTION: US 50 @ Madisonville Road										
	MAINTAINING	AGENCT.	DUAL	ENTRY:	YES	РНА	SES:		2.6	
<u></u> <u>S1</u>	<u>ART UP</u>		REST	IN RED:	120	RING 1	NO		RING 2	NO
START IN: TIME FOR FLASH OR	TART IN: ALL RED ME FOR FLASH OR ALL RED:		OVERLA	NP			Α	В	С	D
FIRST PHASE(S): COLOR DISPLAYED:	2, 6 GREEN	1	PHASES			4,5	5,8	-	-	
INTERVAL OR FEATU	RE				CONTR	ROLLER	NOVEME	NT NO.		
INTERSECTION MOVE	MENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION			-	WB	PED	WBR	WBR	EB	-	SB
MINIMUM GREEN (INITIAL) (SEC.)				20	1	7	3	20	-	10
ADDED INITIAL *(SEC./ACTUATION)			-	-	-	-	-	-	-	-
MAXIMUM INITIAL		(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRES	SET GAP)	(SEC.)	-	5.0	-	3.0	5.0	5.0	-	2.5
TIME BEFORE REDUC	TION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	-	60	30	45	15	60	-	45
MAXIMUM GREEN II		(SEC.)	-	75	30	60	20	75	-	60
YELLOW CHANGE		(SEC.)	-	3.5	3.0	3.5	3.5	3.5	-	3.5
ALL RED CLEARANCE		(SEC.)	-	2.0	1.0	1.0	1.0	2.0	-	1.0
WALK (SEC.)			-	9	13	-	-	11	-	10
PEDESTRIAN CLEARA	NCE	(SEC.)	-	12	6	-	-	5	-	7
	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
RECALL	MINIMUM	(ON/OFF)	-	ON	-	-	-	ON	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-

***VOLUME DENSITY CONTROLS**

ECONOLITE COORD SETTINGS							
MANUAL PATTERN	FREE						
SYSTEM SOURCE	SYS						
SPLITS IN	SECONDS						
TRANSITION	SMOOTH						
DWELL/ADD TIME	0						
OFFSET REFERNECE	YELLOW						
PED RECALL	NO						
CAL ZERO OVERRIDE	NO						
RE-SYNC COUNT	0						
ECPI COORD	YES						
SYSTEM FORMAT	STD						
OFFSET IN	SECONDS						
MAX SELECT	MAXINH						
FORCE OFF	FLOAT						
USE PED TIME	YES						
PED RESERVICE	NO						
FO ADD INI GRN	NO						
MULTISYNC	NO						

SIEMENS COORD SETTINGS								
OPERATION	1 - AUTO							
MODE (NORMAL)	0 - PERMISSIVE							
MAXIMUM	0 - INHIBIT							
CORRECTION	2 - SHORT WAY							
OFFSET MODE	1 - END GREEN							
FORCE MODE	2 - FLOATING							
MAX DWELL TIME	-							
YIELD PERIOD	-							
MANUAL CONTROL: DIAL	-							
MANUAL CONTROL: SPLIT	-							
MANUAL CONTROL: OFFSET	-							

Notes:

5 second delay lag for Phase 8

LPI of 3 seconds for Phase 2 & 6

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ 6

COORDINATION TIMING PLANS												
DAY(S) OF WEEK	DAY(S) OF WEEK PLAN NAME HOURS CYCLE/SPLIT/OFFSET CYCLE LENGTH (SEC)											
1,2,3,4,5,6,7	1	0000	1	70								
1,2,3,4,5,6,7	2	0630	3	100								
1,2,3,4,5,6,7	3	0830	1	70								
1,2,3,4,5,6,7	4	1600	2	80								
1,2,3,4,5,6,7	5	1830	1	70								
-	-	-	-	_								
-	-	-	-	_								
-	-	-	-	_								
-	-	-	-	_								

			US	50 @ Ma	disonvill	e Road				
PHASE	1	2	3	4	5	6	7	8	OFESET 1	OFFRET 2
DIRECTION	-	WB	PED	WBR	WBR	EB	-	SB		
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(SEC)
1	0	43.4	19.6	7	19.6	23.8	0	26.6	0	-
2	0	48.8	23.2	8	12.8	36	0	31.2	0	-
3	0	61	29	10	16	45	0	39	0	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ 6

COORDINATION TIMING PLANS										
DAY(S) OF WEEK	(S) OF WEEK PLAN NAME HOURS CYCLE/SPLIT/OFFSET CYCLE LENGTH (SEC)									
2,3,4,5,6	OVERNIGHT	0000-0600	-	FREE						
2,3,4,5,6	AM	0600-0930	1	120						
2,3,4,5,6	MID	0930-1400	2	100						
2,3,4,5,6	PM	1400-1900	3	120						
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE						
1,7	OVERNIGHT	0000-0900	-	FREE						
1,7	WEEKEND	0900-1900	4	100						
1,7	OVERNIGHT	1900-0000	-	FREE						
-	-	-	-	-						

			US	50 @ Ma	disonvill	e Road				
PHASE	1	2	3	4	5	6	7	8	OFFRET 4	OFFORT A
DIRECTION	-	WB	PED	WBR	WBR	EB	-	SB		
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(320)
1	0	67	28	25	15	52	0	53	87	-
2	0	62	24	14	15	47	0	38	35	-
3	0	81	24	15	15	66	0	39	57	-
4	0	62	24	14	15	47	0	38	35	-
-	-	-	-	-	-	-	-	-	-	-

		RSECTION:	US 50 @) Miami R	load					
	MAINTAINING	AGENCY:		ENTDV.		БЦА	<u></u>			
<u>S1</u>	ART UP		DUAL		NÜ		353:			
			REOI	IN KED.		RINGT	NU		RING Z	NU
TIME FOD EL AGU OD	OVERLAP				Α	В	С	D		
		0								
	GREEN	J		:			_	23	_	_
COLOR DISPLATED.	ONELI	•		,			-	2,5	-	-
INTERVAL OR FEATU	RE				CONT	ROLLER	NOVEME	NT NO.	1	
INTERSECTION MOVE	MENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION				NB	SB	PED	-	-	-	-
MINIMUM GREEN (INI	TIAL)	(SEC.)	20	10	10	1	-	-	-	-
ADDED INITIAL	*(SEC./AC	TUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL		(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRES	SET GAP)	(SEC.)	5.0	2.0	3.0	-	-	-	-	-
TIME BEFORE REDUC	TION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	60	45	45	25	-	-	-	-
MAXIMUM GREEN II		(SEC.)	75	60	60	25	-	-	-	-
YELLOW CHANGE		(SEC.)	3.5	3.5	3.5	3.0	-	-	-	-
ALL RED CLEARANCE		(SEC.)	1.5	1.0	1.0	1.0	-	-	-	-
WALK		(SEC.)	10	-	-	9	-	-	-	-
PEDESTRIAN CLEARA	NCE	(SEC.)	13	-	-	8	-	-	-	-
	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
RECALL	MINIMUM	(ON/OFF)	ON	-	-	-	-	-	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-

ECONOLITE COORD SETTINGS							
MANUAL PATTERN	FREE						
SYSTEM SOURCE	SYS						
SPLITS IN	SECONDS						
TRANSITION	SMOOTH						
DWELL/ADD TIME	0						
OFFSET REFERNECE	YELLOW						
PED RECALL	NO						
CAL ZERO OVERRIDE	NO						
RE-SYNC COUNT	0						
ECPI COORD	YES						
SYSTEM FORMAT	STD						
OFFSET IN	SECONDS						
MAX SELECT	MAXINH						
FORCE OFF	FLOAT						
USE PED TIME	YES						
PED RESERVICE	NO						
FO ADD INI GRN	NO						
MULTISYNC	NO						

SIEMENS COORD SETTINGS								
OPERATION	1 - AUTO							
MODE (NORMAL)	0 - PERMISSIVE							
MAXIMUM	0 - INHIBIT							
CORRECTION	2 - SHORT WAY							
OFFSET MODE	1 - END GREEN							
FORCE MODE	2 - FLOATING							
MAX DWELL TIME	-							
YIELD PERIOD	-							
MANUAL CONTROL: DIAL	-							
MANUAL CONTROL: SPLIT	-							
MANUAL CONTROL: OFFSET	-							

General Notes:

1. All offsets are measured from the referenced phase

END OF GREEN / BEGINNING OF YELLOW

2. All offsets are measured from

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COORDINATION TIMING PLANS										
DAY(S) OF WEEK	DAY(S) OF WEEK PLAN NAME HOURS CYCLE/SPLIT/OFFSET CYCLE LENGTH (SEC)									
1,2,3,4,5,6,7	1	0000	1	70						
1,2,3,4,5,6,7	2	0630	3	100						
1,2,3,4,5,6,7	3	0830	1	70						
1,2,3,4,5,6,7	4	1600	2	80						
1,2,3,4,5,6,7	5	1830	1	70						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						

US 50 @ Miami Road										
PHASE	1	2	3	4	5	6	7	8	OFFRET 4	
DIRECTION	WB	NB	SB	PED	-	-	-	-		UFFSET 2
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(320)
1	21	14	17.5	17.5	0	0	0	0	0	-
2	24	16	20	20	0	0	0	0	0	-
3	30	20	25	25	0	0	0	0	0	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

General Notes:

1. All offsets are measured from the referenced phase

END OF GREEN / BEGINNING OF YELLOW

2. All offsets are measured from

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COORDINATION TIMING PLANS							
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)			
2,3,4,5,6	OVERNIGHT	0000-0600	-	FREE			
2,3,4,5,6	AM	0600-0930	1	120			
2,3,4,5,6	MID	0930-1400	2	100			
2,3,4,5,6	РМ	1400-1900	3	120			
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE			
1,7	OVERNIGHT	0000-0900	-	FREE			
1,7	WEEKEND	0900-1900	4	100			
1,7	OVERNIGHT	1900-0000	-	FREE			
-	-	-	-	-			

US 50 @ Miami Road													
PHASE	1												
DIRECTION	WB	NB	SB	PED	-	-	-	-	OFFSET 1	FFSET 1 OFFSET 2			
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(SEC)	(SEC)			
1	66	15	17	22	0	0	0	0	88	-			
2	45	16	17	22	0	0	0	0	32	-			
3	58	20	20	22	0	0	0	0	44	-			
4	45	16	17	22	0	0	0	0	32	-			
-	-	-	-	-	-	-	-	-	-	-			

	INTERSECTION: US 50 @ Pocahontas Avenue									
START UP			DUAL	ENIRY:	NO		SES:		-	
		_	REST	IN RED:		RING 1	NO	-	RING 2	NO
TIME FOR FLASH OR	ALL RE	D A	OVERLA	٩P			Α	В	С	D
FIRST PHASE(S)	ALL NLD. 2	Ū								
	GREEN	J					12	_	_	_
COLOR DISPLATED.	ONELI	•		,			1,2	-	_	-
INTERVAL OR FEATU	RE				CONTR	ROLLER	MOVEME	NT NO.		
INTERSECTION MOVE	EMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION			EBL	EBWB	-	NBSB	-	-	-	-
MINIMUM GREEN (INI	TIAL)	(SEC.)	7	35	-	10	-	-	-	-
ADDED INITIAL	*(SEC./AC	TUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL		(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRES	SET GAP)	(SEC.)	2.0	-	-	3.0	-	-	-	-
TIME BEFORE REDUC	TION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	15	60	-	45	-	-	-	-
MAXIMUM GREEN II		(SEC.)	20	75	-	60	-	-	-	-
YELLOW CHANGE		(SEC.)	3.5	3.5	-	3.0	-	-	-	-
ALL RED CLEARANCE		(SEC.)	1.0	1.0	-	1.0	-	-	-	-
WALK (SEC.)			-	7	-	9	-	-	-	-
PEDESTRIAN CLEARA	NCE	(SEC.)	-	7	-	10	-	-	-	-
	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
RECALL	MINIMUM	(ON/OFF)	-	ON	-	-	-	-	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY (ON/OFF)			-	-	-	-	-	-	-	-

ECONOLITE COORD SETTINGS							
MANUAL PATTERN	FREE						
SYSTEM SOURCE	SYS						
SPLITS IN	SECONDS						
TRANSITION	SMOOTH						
DWELL/ADD TIME	0						
OFFSET REFERNECE	YELLOW						
PED RECALL	NO						
CAL ZERO OVERRIDE	NO						
RE-SYNC COUNT	0						
ECPI COORD	YES						
SYSTEM FORMAT	STD						
OFFSET IN	SECONDS						
MAX SELECT	MAXINH						
FORCE OFF	FLOAT						
USE PED TIME	YES						
PED RESERVICE	NO						
FO ADD INI GRN	NO						
MULTISYNC	NO						

SIEMENS COORD SETTINGS							
OPERATION	1 - AUTO						
MODE (NORMAL)	0 - PERMISSIVE						
MAXIMUM	0 - INHIBIT						
CORRECTION	2 - SHORT WAY						
OFFSET MODE	1 - END GREEN						
FORCE MODE	2 - FLOATING						
MAX DWELL TIME	-						
YIELD PERIOD	-						
MANUAL CONTROL: DIAL	-						
MANUAL CONTROL: SPLIT	-						
MANUAL CONTROL: OFFSET	-						

General Notes:

1. All offsets are measured from the referenced phase

END OF GREEN / BEGINNING OF YELLOW

2. All offsets are measured from

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COORDINATION TIMING PLANS									
DAY(S) OF WEEK	PLAN NAME HOURS CYCLE/SPLIT/OFFSET CYCLE LENGTH (SEC)								
1,2,3,4,5,6,7	1	0000	1	75					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					

			US (50 @ Poc	ahontas	Avenue						
PHASE	1	2	3	4	5	6	7	8				
DIRECTION	EBL	EBWB	-	NBSB	-	-	-	-				
PLAN NO.		SPLITS (G+Y+AR) IN SECONDS (SEC)								(320)		
1	24	12	0	39	0	0	0	0	0	-		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		

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General Notes:

1. All offsets are measured from the referenced phase

END OF GREEN / BEGINNING OF YELLOW

COORDINATION TIMING PLANS									
DAY(S) OF WEEK	Y(S) OF WEEK PLAN NAME HOURS CYCLE/SPLIT/OFFSET CYCLE LENGTH (SEC)								
2,3,4,5,6	OVERNIGHT	0000-0600	-	FREE					
2,3,4,5,6	AM	0600-0930	1	120					
2,3,4,5,6	MID	0930-1400	2	100					
2,3,4,5,6	PM	1400-1900	3	120					
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE					
1,7	OVERNIGHT	0000-0000	-	FREE					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					

US 50 @ Pocahontas Avenue										
PHASE	1	2	3	4	5	6	7	8	OFFRET 4	OFFRET 2
DIRECTION	EBL	EBWB	-	NBSB	-	-	-	-		
PLAN NO.			SPLITS	6 (G+Y+A	R) IN SE	CONDS			(320)	(320)
1	22	63	0	35	-	-	-	-	60	-
2	15	50	0	35	-	-	-	-	99	-
3	15	70	0	35	-	-	-	-	7	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

	INTERSECTION: US 50 @ Mariemont Plaza									
	AGENUT			VEO		656		2.6		
START UP			DUAL		TES		3E3.		Z,0	NO
STADT INI		n	REST	IN RED.		RINGI	NO	r		NO
		6	OVERLA	NP			Α	В	С	D
EIDET DUASE(S)	2 6 view.	0								
	GREEN	1					_	_		_
OULOR DIGI LATED.	ORLER			•			_		_	
INTERVAL OR FEATU	RE				CONTR	ROLLER	NOVEME	NT NO.	I	
INTERSECTION MOVE	MENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION			-	EB	-	-	-	WB	-	SB
MINIMUM GREEN (INI	TIAL)	(SEC.)	-	20	-	-	-	20	-	10
ADDED INITIAL	*(SEC./AC	TUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL		(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRES	SET GAP)	(SEC.)	-	5.0	-	-	-	5.0	-	3.0
TIME BEFORE REDUC	TION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	-	60	-	-	-	60	-	45
MAXIMUM GREEN II		(SEC.)	-	75	-	-	-	75	-	60
YELLOW CHANGE		(SEC.)	-	4.5	-	-	-	4.5	-	3.0
ALL RED CLEARANCE		(SEC.)	-	1.0	-	-	-	1.0	-	1.5
WALK		(SEC.)	-	-	-	-	-	-	-	-
PEDESTRIAN CLEARA	NCE	(SEC.)	-	-	-	-	-	-	-	-
	MAXIMUM	(ON/OFF)	-	ON	-	-	-	ON	-	-
RECALL	MINIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY (ON/OFF)			-	-	-	-	-	-	-	-

ECONOLITE COORD SETTINGS						
MANUAL PATTERN	FREE					
SYSTEM SOURCE	SYS					
SPLITS IN	SECONDS					
TRANSITION	SMOOTH					
DWELL/ADD TIME	0					
OFFSET REFERNECE	YELLOW					
PED RECALL	NO					
CAL ZERO OVERRIDE	NO					
RE-SYNC COUNT	0					
ECPI COORD	YES					
SYSTEM FORMAT	STD					
OFFSET IN	SECONDS					
MAX SELECT	MAXINH					
FORCE OFF	FLOAT					
USE PED TIME	YES					
PED RESERVICE	NO					
FO ADD INI GRN	NO					
MULTISYNC	NO					

SIEMENS COORD SETTINGS							
OPERATION	1 - AUTO						
MODE (NORMAL)	0 - PERMISSIVE						
MAXIMUM	0 - INHIBIT						
CORRECTION	2 - SHORT WAY						
OFFSET MODE	1 - END GREEN						
FORCE MODE	2 - FLOATING						
MAX DWELL TIME	-						
YIELD PERIOD	-						
MANUAL CONTROL: DIAL	-						
MANUAL CONTROL: SPLIT	_						
MANUAL CONTROL: OFFSET	-						

General Notes:

1. All offsets are measured from the referenced phase

END OF GREEN / BEGINNING OF YELLOW

2. All offsets are measured from

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COORDINATION TIMING PLANS								
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)				
-	-	-	-	-				
-	-	-	-	-				
-	-	-	-	-				
-	-	-	-	-				
-	-	-	-	-				
-	-	-	-	-				
-	-	-	-	-				
-	-	-	-	-				
-	-	-	-	-				

US 50 @ Mariemont Plaza										
PHASE	1	2	3	4	5	6	7	8	OFFRET 4	OFFRET 2
DIRECTION	-	-	-	-	-	-	-	-		UFFSET 2
PLAN NO.				(320)	(320)					
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

General Notes:

1. All offsets are measured from the referenced phase

END OF GREEN / BEGINNING OF YELLOW

2. All offsets are measured from

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	COORDINATION TIMING PLANS								
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)					
2,3,4,5,6	OVERNIGHT	0000-0600	-	FREE					
2,3,4,5,6	AM	0600-0930	1	120					
2,3,4,5,6	MID	0930-1400	2	100					
2,3,4,5,6	РМ	1400-1900	3	120					
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE					
1,7	OVERNIGHT	0000-0000	-	FREE					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					

US 50 @ Mariemont Plaza										
PHASE										
DIRECTION	-	EB	-	-	-	WB	-	SB	OFFSET 1	OFFSET 2
PLAN NO.				(320)	(320)					
1	0	95	0	0	0	95	0	25	51	-
2	0	75	0	0	0	75	0	25	4	-
3	0	95	0	0	0	95	0	25	14	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

	INTER	RSECTION:	US 50 @) Spring I	Hill Road					
	MAINTAINING	GAGENCY:								
ST	ART UP		DUAL	ENTRY:	YES	PHA	SES: 2,4,6,8			
			REST	IN RED:		RING 1	NO	I	RING 2	NO
START IN: TIME FOR FLASH OR	ALL RE	D 6	OVERLAP			Α	В	С	D	
FIRST PHASE(S)	26	Ŭ								
	GREEN	J	PHASES	:			_	_	_	_
COLON DIGI LATED.	UNELI	•		•						_
INTERVAL OR FEATU	RE				CONT	ROLLER	NOVEME	NT NO.		
INTERSECTION MOVE	EMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION			EBL	WB	-	SB	WBL	EB	-	NB
MINIMUM GREEN (INI	TIAL)	(SEC.)	7	20	-	10	7	20	-	10
ADDED INITIAL	*(SEC./AC	TUATION)	-	-	-	-	•	-	-	•
MAXIMUM INITIAL		(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRES	SET GAP)	(SEC.)	3.0	4.0	-	3.0	3.0	4.0	-	3.0
TIME BEFORE REDUC	TION	*(SEC.)	-	-	-	-	•	-	-	•
MINIMUM GAP		*(SEC.)	-	-	-	-	•	-	-	•
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	15	60	-	45	15	60	-	45
MAXIMUM GREEN II		(SEC.)	20	75	-	60	20	75	-	60
YELLOW CHANGE		(SEC.)	3.5	4.5	-	3.5	3.5	4.5	-	3.5
ALL RED CLEARANCE		(SEC.)	1.5	1.0	-	1.0	1.5	1.0	-	1.0
WALK		(SEC.)	-	-	-	-	•	-	-	11
PEDESTRIAN CLEARA	NCE	(SEC.)	-	-	-	-	-	-	-	13
	MAXIMUM	(ON/OFF)	-	ON	-	-	•	ON	-	•
RECALL	MINIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
PEDESTRIAN (ON/OFF)				-	-	-	-	-	-	-
MEMORY		(ON/OFF)	-	-	-	-	•	-	-	•

ECONOLITE COOF	RD SETTINGS
MANUAL PATTERN	FREE
SYSTEM SOURCE	SYS
SPLITS IN	SECONDS
TRANSITION	SMOOTH
DWELL/ADD TIME	0
OFFSET REFERNECE	YELLOW
PED RECALL	NO
CAL ZERO OVERRIDE	NO
RE-SYNC COUNT	0
ECPI COORD	YES
SYSTEM FORMAT	STD
OFFSET IN	SECONDS
MAX SELECT	MAXINH
FORCE OFF	FLOAT
USE PED TIME	YES
PED RESERVICE	NO
FO ADD INI GRN	NO
MULTISYNC	NO

SIEMENS COORD	SETTINGS
OPERATION	1 - AUTO
MODE (NORMAL)	0 - PERMISSIVE
MAXIMUM	0 - INHIBIT
CORRECTION	2 - SHORT WAY
OFFSET MODE	1 - END GREEN
FORCE MODE	2 - FLOATING
MAX DWELL TIME	-
YIELD PERIOD	-
MANUAL CONTROL: DIAL	-
MANUAL CONTROL: SPLIT	_
MANUAL CONTROL: OFFSET	-

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General Notes:

1. All offsets are measured from the referenced phase

END OF GREEN / BEGINNING OF YELLOW φ 6

2. All offsets are measured from

COORDINATION TIMING PLANS CYCLE/SPLIT/OFFSET **CYCLE LENGTH (SEC)** DAY(S) OF WEEK PLAN NAME HOURS ---_ ---

LIS 50 @ Spring Hill Poad											
PHASE	1	2	3	4	5	6	7	8	OFESET 1		
DIRECTION	-	-	-	-	-	-	-	-			
PLAN NO.				(320)	(320)						
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	

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General Notes:

1. All offsets are measured from the referenced phase

END OF GREEN / BEGINNING OF YELLOW φ 6

 $\label{eq:alpha} \textbf{2. All offsets are measured from}$

	COORDINATION TIMING PLANS								
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)					
2,3,4,5,6	OVERNIGHT	0000-0600	-	FREE					
2,3,4,5,6	AM	0600-0930	1	120					
2,3,4,5,6	MID	0930-1400	2	100					
2,3,4,5,6	РМ	1400-1900	3	120					
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE					
1,7	OVERNIGHT	0000-0000	-	FREE					
-	-	-	-	-					
-	-	-	-	-					
-	-	-	-	-					

US 50 @ Spring Hill Road										
PHASE	1	2	3	4	5	6	7	8	OFFRET 4	OFFRET 2
DIRECTION	EBL	WB	-	SB	WBL	EB	-	NB		
PLAN NO.				(320)	(320)					
1	14	81	0	25	18	77	0	25	53	-
2	14	49	0	37	14	49	0	37	36	-
3	14	76	0	30	16	74	0	30	111	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

	INTER	SECTION:	US 50 @	Walton	Creek Ro	ad				
	MAINIAINING	AGENCY:	BUAL				0=0			
ST	ART UP		DUAL	ENTRY:	YES		SES:		2,4,6,8	
		_	REST	IN RED:		RING 1	NO	-	RING 2	NO
TIME FOR FLASH OR	ALL RE	D A	OVERLAP			Α	В	С	D	
FIRST PHASE(S)	26	Ū								
	GREEN	J					_		_	_
COLOR DISPLATED.	ONELI	•	TIAOLO	•			-	-	-	-
INTERVAL OR FEATU	RE				CONTR	ROLLER	MOVEME	NT NO.		
INTERSECTION MOVE	EMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION			WBL	EB	SBL	NB	EBL	WB	-	SB
MINIMUM GREEN (INI	TIAL)	(SEC.)	7	20	7	10	7	20	-	10
ADDED INITIAL	*(SEC./AC	TUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL		(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRES	SET GAP)	(SEC.)	3.0	5.0	3.0	3.0	3.0	5.0	-	3.0
TIME BEFORE REDUC	TION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	15	60	25	45	15	60	-	45
MAXIMUM GREEN II		(SEC.)	20	75	30	60	20	75	-	60
YELLOW CHANGE		(SEC.)	3.5	4.5	3.5	3.5	3.5	4.5	-	3.5
ALL RED CLEARANCE		(SEC.)	1.5	1.0	1.5	1.5	1.5	1.0	-	1.5
WALK		(SEC.)	-	-	-	-	-	8	-	13
PEDESTRIAN CLEARANCE (SEC.)			-	-	-	-	-	13	-	19
	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
RECALL	MINIMUM	(ON/OFF)	-	ON	-	-	-	ON	-	-
	-	-	-	-	-	-	-	-		
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-

ECONOLITE COOF	RD SETTINGS
MANUAL PATTERN	FREE
SYSTEM SOURCE	SYS
SPLITS IN	SECONDS
TRANSITION	SMOOTH
DWELL/ADD TIME	0
OFFSET REFERNECE	YELLOW
PED RECALL	NO
CAL ZERO OVERRIDE	NO
RE-SYNC COUNT	0
ECPI COORD	YES
SYSTEM FORMAT	STD
OFFSET IN	SECONDS
MAX SELECT	MAXINH
FORCE OFF	FLOAT
USE PED TIME	YES
PED RESERVICE	NO
FO ADD INI GRN	NO
MULTISYNC	NO

SIEMENS COORD	SETTINGS
OPERATION	1 - AUTO
MODE (NORMAL)	0 - PERMISSIVE
MAXIMUM	0 - INHIBIT
CORRECTION	2 - SHORT WAY
OFFSET MODE	1 - END GREEN
FORCE MODE	2 - FLOATING
MAX DWELL TIME	-
YIELD PERIOD	-
MANUAL CONTROL: DIAL	-
MANUAL CONTROL: SPLIT	_
MANUAL CONTROL: OFFSET	-

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General Notes:

1. All offsets are measured from the referenced phase

END OF GREEN / BEGINNING OF YELLOW φ 6

2. All offsets are measured from

COORDINATION TIMING PLANS CYCLE/SPLIT/OFFSET **CYCLE LENGTH (SEC)** DAY(S) OF WEEK PLAN NAME HOURS ---_ ---

US 50 @ Walton Creek Road										
PHASE	1	2	3	4	5	6	7	8	OFFRET 4	OFFRET 2
DIRECTION	-	-	-	-	-	-	-	-		
PLAN NO.				(320)	<i>,</i>) (SEC)					
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

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φ2

General Notes:

1. All offsets are measured from the referenced phase

END OF GREEN / BEGINNING OF YELLOW φ 6

COORDINATION TIMING PLANS										
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)						
2,3,4,5,6	OVERNIGHT	0000-0600	-	FREE						
2,3,4,5,6	AM	0600-0930	1	120						
2,3,4,5,6	MID	0930-1400	2	100						
2,3,4,5,6	РМ	1400-1900	3	120						
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE						
1,7	OVERNIGHT	0000-0000	-	FREE						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						

US 50 @ Walton Creek Road											
PHASE	1	2	3	4	5	6	7	8	OFFRET 4	OFFRET 2	
DIRECTION	WBL	EB	SBL	NB	EBL	WB	-	SB	(SEC)		
PLAN NO.	SPLITS (G+Y+AR) IN SECONDS (SEC)										
1	14	81	0	25	14	81	0	25	52	-	
2	14	47	13	26	14	47	0	39	40	-	
3	14	63	21	22	14	63	0	43	10	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	

		SECTION:	US 50 @	Newtow	n Road					
		AGENCT.			VES	РНА	SES		2.6	
<u>ST</u>	ART UP		REST	IN RED:	TES	RING 1			RING 2	NO
START IN: TIME FOR FLASH OR J	ALL REE ALL RED:	6	OVERLA	AP			A	В	C	D
FIRST PHASE(S): COLOR DISPLAYED:	2,6 GREEN		PHASES	5			2,4	-	-	-
INTERVAL OR FEATU	RE				CONTF	ROLLER	NOVEME	NT NO.		
INTERSECTION MOVE	MENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION	WBL	EB	-	NB	-	WB	-	-		
MINIMUM GREEN (INI	(SEC.)	7	20	-	10	-	20	-	-	
ADDED INITIAL	-	-	-	-	-	-	-	-		
MAXIMUM INITIAL	(SEC.)	-	-	-	-	-	-	-	-	
PASSAGE TIME (PRES	SET GAP)	(SEC.)	3.0	4.0	-	4.0	-	4.0	-	-
TIME BEFORE REDUC	TION	*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	15	60	-	45	-	60	-	-
MAXIMUM GREEN II		(SEC.)	20	75	-	60	-	75	-	-
YELLOW CHANGE		(SEC.)	3.0	4.5	-	3.5	-	4.5	-	-
ALL RED CLEARANCE		(SEC.)	3.0	1.0	-	2.0	-	1.0	-	-
WALK		(SEC.)	-	-	-	14	-	-	-	-
PEDESTRIAN CLEARA	NCE	(SEC.)	-	-	-	16	-	-	-	-
	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
RECALL	MINIMUM	(ON/OFF)	-	ON	-	-	-	ON	-	-
	PEDESTRIAN	(ON/OFF)	-	-	-	-	-	-	-	-
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-

ECONOLITE COOF	RD SETTINGS
MANUAL PATTERN	FREE
SYSTEM SOURCE	SYS
SPLITS IN	SECONDS
TRANSITION	SMOOTH
DWELL/ADD TIME	0
OFFSET REFERNECE	YELLOW
PED RECALL	NO
CAL ZERO OVERRIDE	NO
RE-SYNC COUNT	0
ECPI COORD	YES
SYSTEM FORMAT	STD
OFFSET IN	SECONDS
MAX SELECT	MAXINH
FORCE OFF	FLOAT
USE PED TIME	YES
PED RESERVICE	NO
FO ADD INI GRN	NO
MULTISYNC	NO

SIEMENS COORD	SETTINGS
OPERATION	1 - AUTO
MODE (NORMAL)	0 - PERMISSIVE
MAXIMUM	0 - INHIBIT
CORRECTION	2 - SHORT WAY
OFFSET MODE	1 - END GREEN
FORCE MODE	2 - FLOATING
MAX DWELL TIME	-
YIELD PERIOD	-
MANUAL CONTROL: DIAL	-
MANUAL CONTROL: SPLIT	_
MANUAL CONTROL: OFFSET	_

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φ2

General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ 6

 $\label{eq:alpha} \mbox{ All offsets are measured from }$

COORDINATION TIMING PLANS										
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)						
1,2,3,4,5,6,7	1	0000	254	FREE						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						
-	-	-	-	-						

US 50 @ Newtown Road											
PHASE	1	2	3	4	5	6	7	8	OFESET 1	OFESET 2	
DIRECTION	-	-	-	-	-	-	-	-			
PLAN NO.	PLAN NO. SPLITS (G+Y+AR) IN SECONDS										
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	

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General Notes:

1. All offsets are measured from the referenced phase **END OF GREEN / BEGINNING OF YELLOW**

END OF GREEN / BEGINNING OF YELLOW φ6

COORDINATION TIMING PLANS											
DAY(S) OF WEEK	PLAN NAME	HOURS	CYCLE/SPLIT/OFFSET	CYCLE LENGTH (SEC)							
2,3,4,5,6	OVERNIGHT	0000-0600	-	FREE							
2,3,4,5,6	AM	0600-0930	1	120							
2,3,4,5,6	MID	0930-1400	2	100							
2,3,4,5,6	PM	1400-1900	3	120							
2,3,4,5,6	OVERNIGHT	1900-0000	-	FREE							
1,7	OVERNIGHT	0000-0000	-	FREE							
-	-	-	-	-							
-	-	-	-	-							
-	-	-	-	-							

US 50 @ Newtown Road											
PHASE	1	2	3	4	5	6	7	8	OFESET 1	OFESET 2	
DIRECTION	WBL	EB	-	NB	-	WB	-	-			
PLAN NO.		(320)	(320)								
1	15	50	0	55	0	65	0	0	8	-	
2	15	48	0	37	0	63	0	0	47	-	
3	16	64	0	40	0	80	0	0	57	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	



APPENDIX E



			East	ound			Westbound						
Month	Trave	Time (se	conds)	Monthly	Monthly Seasonal Factor			Travel Time (seconds)			Monthly Seasonal Factor		
	AM	Mid	РМ	AM	Mid	РМ	AM	Mid	РМ	AM	Mid	PM	
January	185	124	196	0.76	1.27	1.13	191	150	141	1.04	1.05	1.28	
February ¹	130	163	208	1.08	0.97	1.06	178	155	173	1.12	1.02	1.05	
March	124	150	217	1.14	1.05	1.02	168	146	175	1.18	1.08	1.03	
April	127	187	253	1.11	0.84	0.87	251	197	218	0.79	0.80	0.83	
Мау	135	153	233	1.04	1.03	0.95	209	138	201	0.95	1.14	0.90	
June	145	177	191	0.97	0.89	1.16	196	175	290	1.02	0.90	0.62	
July	132	145	216	1.07	1.09	1.02	177	173	149	1.12	0.91	1.21	
August	146	147	237	0.97	1.07	0.93	199	149	172	1.00	1.06	1.05	
September	137	150	231	1.03	1.05	0.96	203	144	169	0.98	1.10	1.07	
October	148	145	229	0.95	1.09	0.97	222	147	178	0.90	1.07	1.02	
November	157	166	226	0.90	0.95	0.98	228	177	164	0.87	0.89	1.10	
December	123	184	217	1.15	0.86	1.02	170	141	144	1.17	1.12	1.26	
Average	141	158	221				199	158	181				

SR 32 Monthly Travel Time (2015, 2016, and 2017 Streetlight Data)

1. Only data from 7:00 to 8:00 AM in the eastbound direction. No data available from 8:00 to 9:00 AM.



SR 32 Eastbound Travel Time by Month

	Eastbound						Westbound					
Month	Travel Time (seconds)			Monthly Seasonal Factor			Travel Time (seconds)			Monthly Seasonal Factor		
	AM	Mid	РМ	AM	Mid	PM	AM	Mid	PM	AM	Mid	РМ
January	279	321	390	1.17	1.12	1.08	457	449	347	0.96	0.82	1.03
February ¹	319	323	399	1.03	1.11	1.06	405	327	338	1.09	1.13	1.06
March	308	432	413	1.06	0.83	1.02	430	369	385	1.03	1.00	0.93
April ²	395	350	430	0.83	1.03	0.98	477	357	342	0.92	1.04	1.05
Мау	334	332	451	0.98	1.08	0.94	470	437	351	0.94	0.85	1.02
June	310	437	409	1.05	0.82	1.03	359	375	360	1.23	0.99	0.99
July	323	317	409	1.01	1.14	1.03	358	360	321	1.23	1.03	1.12
August	298	297	453	1.10	1.21	0.93	406	322	341	1.09	1.15	1.05
September	330	338	444	0.99	1.07	0.95	538	393	321	0.82	0.94	1.12
October	349	436	460	0.94	0.83	0.92	509	328	502	0.87	1.13	0.71
November	335	385	395	0.98	0.94	1.07	452	375	358	0.98	0.99	1.00
December ³	340	346	410	0.96	1.04	1.03	429	345	334	1.03	1.07	1.07
Average	327	360	422				441	370	358			

US 50 Monthly Travel Time (2015, 2016, and 2017 Streetlight Data)

1. Only data from 7:00 to 8:00 AM in the eastbound direction. No data available from 8:00 to 9:00 AM.

2. Only data from 11:00 AM to 12:00 PM in the westbound direction. No data available from 12:00 to 1:00 PM.

3. Only data from 8:00 to 9:00 AM in the eastbound direction. No data available from 7:00 to 8:00 AM.



US 50 Eastbound Travel Time by Month



APPENDIX F


SR 32 at Church St (Newtown Rd) 7:00am - 8:30am Observed on October 19, 2016 Observed on February 27, 2019

		MAX QL	IEUE WB	MAX QI	JEUE NB
DEGIN	END	2016	2019	2016	2019
7:00	7:05	21	9	18	10
7:05	7:10	21	58	13	17
7:10	7:15	34	6	22	24
7:15	7:20	35	24	26	35
7:20	7:25	24	55	25	38
7:25	7:30	19	55	18	38
7:30	7:35	26	64	17	38
7:35	7:40	18	*	28	46
7:40	7:45	29	*	40	35
7:45	7:50	64	*	25	30
7:50	7:55	29	*	50	24
7:55	8:00	45	*	40	38
8:00	8:05	*	44	50	29
8:05	8:10	*	64	14	18
8:10	8:15	*	55	14	17
8:15	8:20	56	10	16	11
8:20	8:25	56	5	11	9
8:25	8:30	48	32	13	7

* Vehicles are backed up to Round Bottom Rd. intersection.

50th Percentile			20	27
95th Percentile			50	39
Max	64	64	50	46

SR 32 at Round Bottom Rd. 6:45am - 8:15am 7:00am - 8:30am Observed on October 19, 2016 Observed on March 19, 2019

REGIN	ENID	MAX QUEUE WB		
DEGIN	END	2016	2019	
6:45	6:50	8	-	
6:50	6:55	18	-	
6:55	7:00	8	-	
7:00	7:05	24	6	
7:05	7:10	31	15	
7:10	7:15	24	18	
7:15	7:20	12	22	
7:20	7:25	10	26	
7:25	7:30	8	46	
7:30	7:35	7	45	
7:35	7:40	5	42	
7:40	7:45	13	44	
7:45	7:50	10	38	
7:50	7:55	11	28	
7:55	8:00	14	21	
8:00	8:05	11	18	
8:05	8:10	14	12	
8:10	8:15	34	7	
8:15	8:20	-	14	
8:20	8:25	-	6	
8:25	8:30	-	8	
8:20 8:25	8:25 8:30	-	6 8	

50th Percentile	12	20
95th Percentile	31	45
Max	34	46

SR 32 at Little Dry Run Rd 6:45am - 8:15 am Observed on October 19, 2016 Observed on February 27, 2019

REGIN		MAX QL	IEUE WB		
DEGIN	END	2016	2019		
6:45	6:50	6	3		
6:50	6:55	17	4		
6:55	7:00	5	8		
7:00	7:05	14	16		
7:05	7:10	15	5		
7:10	7:15	15	7		
7:15	7:20	18	20		
7:20	7:25	15	23		
7:25	7:30	19	25		
7:30	7:35	15	21		
7:35	7:40	15	21		
7:40	7:45	19	23		
7:45	7:50	15	19		
7:50	7:55	7	15		
7:55	8:00	6	7		
8:00	8:05	8	12		
8:05	8:10	8	6		
8:10	8:15	7	12		
50th Percentile 15 14					

50th Percentile	15	14
95th Percentile	19	23
Max	19	25

Red Bank Rd at US 50 Ramps 7:00am - 8:30am Observed on October 19, 2016 Observed on March 7, 2019

REGIN		MAX QUEUE NB		MAX QUEUE WB	
DEGIN	END	2016	2019	2016	2019
7:00	7:05	22	17	7	13
7:05	7:10	18	14	17	15
7:10	7:15	20	11	21	15
7:15	7:20	22	18	24	8
7:20	7:25	25	26	12	17
7:25	7:30	18	24	7	10
7:30	7:35	24	24	11	22
7:35	7:40	19	22	18	13
7:40	7:45	19	18	18	20
7:45	7:50	18	19	19	22
7:50	7:55	23	14	6	12
7:55	8:00	24	18	13	23
8:00	8:05	24	19	10	20
8:05	8:10	24	16	12	11
8:10	8:15	18	16	13	20
8:15	8:20	18	12	9	10
8:20	8:25	18	9	16	9
8:25	8:30	23	19	9	14
50th	50th Percentile		18	13	15
95th	Percentile	24	24	21	22
	Max		26	24	23

Newtown Rd at US 50 (Wooster Pike) 6:45am - 8:15am 7:00am - 8:30am Observed on October 19, 2016 Observed on February 26, 2019

BEGIN	ENID	MAX QUEUE NB		
DEGIN	END	2016	2019	
6:45	6:50	12	-	
6:50	6:55	11	-	
6:55	7:00	14	-	
7:00	7:05	17	7	
7:05	7:10	16	16	
7:10	7:15	22	10	
7:15	7:20	16	18	
7:20	7:25	24	16	
7:25	7:30	24	16	
7:30	7:35	16	18	
7:35	7:40	19	16	
7:40	7:45	19	15	
7:45	7:50	25	18	
7:50	7:55	19	13	
7:55	8:00	21	16	
8:00	8:05	19	15	
8:05	8:10	15	13	
8:10	8:15	13	20	
8:15	8:20	-	9	
8:20	8:25	-	8	
8:25	8:30	-	6	

50th Percentile	18	16
95th Percentile	24	18
Max	25	20



SR 32 at Church St (Newtown Rd) 4:45pm - 6:15pm Oberved on October 18, 2016 Observed on March 7, 2019

		MAX QUEUE EB		MAX QUEUE NB		MAX QUEUE SB	
DEGIN	END	2016	2019	2016	2019	2016	2019
16:45	16:50	51	24	36	8	39	21
16:50	16:55	58	22	26	6	38	30
16:55	17:00	62	36	27	10	41	22
17:00	17:05	63	22	21	9	48	15
17:05	17:10	80+	48	29	11	42	17
17:10	17:15	80+	42	30	7	22	14
17:15	17:20	80+	15	32	12	24	12
17:20	17:25	80+	12	36	10	20	18
17:25	17:30	80+	6	28	13	21	25
17:30	17:35	80+	47	20	19	21	13
17:35	17:40	80+	23	15	29	35	7
17:40	17:45	80+	7	20	12	22	22
17:45	17:50	80+	14	35	15	44	25
17:50	17:55	80	25	29	25	33	10
17:55	18:00	80	27	44	3	16	20
18:00	18:05	80	11	37	7	13	15
18:05	18:10	80	11	38	15	10	10
18:10	18:15	70	15	32	10	10	19
50th	Percentile	70	22	30	11	23	18
95th	Percentile	80	47	39	26	45	26
	Max	96	48	44	29	48	30

SR 32 at Round Bottom Rd 4:30pm - 6:00pm 4:45pm - 6:15 pm Oberved on October 18, 2016 Observed on February 27, 2019

REGIN		MAX QUEUE EB		MAX QUEUE SB	
BEGIN	END	2016	2019	2016	2019
16:30	16:35	45	-	20	-
16:35	16:40	50	-	30	-
16:40	16:45	45	-	28	-
16:45	16:50	16	*	20	24
16:50	16:55	22	*	30	26
16:55	17:00	26	*	28	36
17:00	17:05	37	*	26	32
17:05	17:10	35	*	42	45
17:10	17:15	23	*	32	36
17:15	17:20	15	*	40	46
17:20	17:25	*	*	30	35
17:25	17:30	*	*	15	30
17:30	17:35	*	*	20	25
17:35	17:40	33	*	17	29
17:40	17:45	25	*	37	42
17:45	17:50	44	*	24	36
17:50	17:55	34	*	26	36
17:55	18:00	21	*	17	40
18:00	18:05	-	*	-	15
18:05	18:10	-	36	-	11
18:10	18:15	-	4	-	12

* Vehicles are backed up to Church St. intersection.

50th Percentile			27	34
95th Percentile			40	45
Max	64	64	42	46

SR 32 at Little Dry Run Rd 4:45pm - 6:15 pm Oberved on October 18, 2016 Observed on February 27, 2019

REGIN		MAX QUEUE EB		
DEGIN	END	2016	2019	
16:45	16:50	19	12	
16:50	16:55	13	9	
16:55	17:00	18	8	
17:00	17:05	32	6	
17:05	17:10	16	14	
17:10	17:15	20	18	
17:15	17:20	20	12	
17:20	17:25	16	13	
17:25	17:30	23	12	
17:30	17:35	24	14	
17:35	17:40	21	23	
17:40	17:45	17	12	
17:45	17:50	16	6	
17:50	17:55	7	4	
17:55	18:00	10	25	
18:00	18:05	20	12	
18:05	18:10	9	16	
18:10	18:15	19	4	

50th Percentile	19	12
95th Percentile	25	23
Max	32	25

US 50 at Meadowlark/Wooster 4:45pm - 6:15pm Oberved on October 18, 2016 Observed on February 27, 2019

PECIN		MAX QUEUE NB		
DEGIN	END	2016	2019	
16:45	16:50	17	5	
16:50	16:55	16	7	
16:55	17:00	24	10	
17:00	17:05	10	5	
17:05	17:10	28	32	
17:10	17:15	38	48	
17:15	17:20	34	43	
17:20	17:25	39	34	
17:25	17:30	28	39	
17:30	17:35	28	43	
17:35	17:40	29	25	
17:40	17:45	36	36	
17:45	17:50	35	15	
17:50	17:55	44	14	
17:55	18:00	41	5	
18:00	18:05	40	13	
18:05	18:10	30	5	
18:10	18:15	34	2	
50th	Percentile	32	15	
95th	Percentile	41	44	

Max

44

48

Newtown Rd at US 50 (Wooster Pike) 4:45pm - 6:15pm Oberved on October 18, 2016 Observed on February 26, 2019

BEGIN END		MAX QUEUE NB		MAX QUEUE WB		
DEGIN	END	2016	2019	2016	2019	
16:45	16:50	6	8	6	4	
16:50	16:55	11	6	5	9	
16:55	17:00	7	9	1	7	
17:00	17:05	9	8	7	3	
17:05	17:10	9	12	4	7	
17:10	17:15	7	14	7	9	
17:15	17:20	11	10	5	4	
17:20	17:25	8	11	7	7	
17:25	17:30	13	8	5	4	
17:30	17:35	14	6	4	6	
17:35	17:40	10	9	4	4	
17:40	17:45	10	5	7	9	
17:45	17:50	7	6	9	3	
17:50	17:55	9	10	4	7	
17:55	18:00	9	7	6	5	
18:00	18:05	14	4	8	8	
18:05	18:10	11	9	9	8	
18:10	18:15	6	6	8	7	
50th	Percentile	9	8	6	7	
95th	Percentile	14	12	9	9	
	Max	14	14	9	9	



APPENDIX B

B.6 TRAVEL TIME ANALYSIS

Eastern Corridor Segments II & III (PID 86462)

Travel Time Analysis

File: 173620095

Date: March 29, 2019

The purpose of this memorandum is to summarize the cumulative benefits that the individual projects within the Eastern Corridor Segment II & III project area have during the morning and afternoon peak periods. Segment II & III stretch from I-275 to the east to Red Bank Road to the west. Approximately 70 total roadway capacity, bicycle, and pedestrian projects within the study area were identified. While each of the individual roadway capacity projects stand alone on their own merit, when combined, they provide a regional benefit for vehicles traversing between I-275 and Red Bank Road on SR 32, Round Bottom Road, Valley Avenue, Church Street, SR 125, US 50, and Wooster Road.

To quantify the cumulative benefit that the individual roadway capacity projects have for travel within the study area, baseline no build travel times were established for two route alternatives to get from I-275 to Red Bank Road (and vice versa). Route 1 utilized SR 32, the 'Newtown Zig-Zag' (consisting of Round Bottom Road, Valley Avenue and Church Street), and US 50. Route 2 utilized SR 32, SR 125, and Wooster Road. The two routes are shown in **Figure 1**.



The StreetLight Data segment analysis tool was used to estimate the baseline travel times. Streetlight Data is based on data created by mobile phones, GPS devices, connected cars and commercial trucks, fitness trackers, etc. pinging cell towers and satellites creating location records. Using their proprietary algorithmic processing engine, StreetLight is able to transform theses anonymized records into useful transportation data. Personal navigation-gps data was obtained on typical weekdays (Tuesday – Thursday) from the calendar year 2016 and 2017. Data from 7:00 AM to 9:00 AM was used for the morning peak period and data from 4:00 PM to 6:00 PM was used for the afternoon peak period. Data obtained from StreetLight was spot checked for reasonableness using Google travel time data during the morning and afternoon peak periods.

The cumulative travel time benefits of the improvements within the study area were estimated by applying the lowest cost intersection improvement project at each intersection along the two routes. Only those movements that a vehicle is required to make as part of traversing the corridor were considered. For vehicles travelling from I-275 to Red Bank Road, the applicable left-turn/thru/right-turn movements in the northbound/westbound direction were applied. For vehicles travelling from Red Bank Road to I-275, the applicable left-turn/thru/right-turn movements in the southbound/eastbound direction were applied. The reduction in delay at each intersection between the no build and build scenarios was applied to the no build travel time pulled from StreetLight. A list of the intersection improvements applied to each route are shown in **Table 1** and the locations of the improvements are shown in **Figure 1**. The AM and PM peak-hour delay per movement is provided in the Appendix.

Identifier	Intersection	Build Alternative	Route Applied To
I-2	SR 32 & Beechwood Rd	Optimize and Coordinate with Adjacent Intersections	Route 1 & 2
I-3	SR 32 & 8-Mile Rd	Construct a Signalized Green Tee Intersection	Route 1 & 2
I-4	SR 32 & Little Dry Run	Construct a Signalized Green Tee Intersection	Route 1 & 2
I-5	SR 32 & Round Bottom Rd	Construct Dual SBL and 2nd EBT	Route 1 & 2
I-6	SR 32 & Church St	Construct 2nd WBT	Route 2
I-7	SR 32 & Clough Pike	Construct a Signalized Green Tee Intersection	Route 2
I-8	Valley Ave & Round Bottom Rd	Construct a Roundabout	Route 1
I-10	Valley Ave & Church Street	Install a Five Section Head for a WBR Overlap Phase	Route 1
I-11	US 50 & Newtown Rd	Construct a Roundabout	Route 1
I-12	US 50 & Walton Creek Rd	Add SBL pm+pt phase and lengthen SBL turn lane	Route 1
I-16	US 50 & Meadowlark Ln	Construct a Roundabout	Route 1
I-20	Red Bank Road & Wooster Rd	Construct a Roundabout	Route 2
I-25	Red Bank Road & Colbank Rd	Construct 2nd NBT and dual WBR, signalize WB US 50 ramp	Route 1 & 2

Table 1: Intersection Improvements for Travel Time Analysis

As shown in **Table 2**, the cumulative impact of the individual capacity projects results in a two- to six-minute travel time savings in the peak direction which represents an 8% to 25% reduction overall travel time. The peak travel direction is northbound/westbound during the morning peak period and southbound/eastbound during the afternoon peak period. Off-peak travel time reductions were not as significant, primarily due to lesser congestion.

Table 2: Eastern Corridor Segment II & III Travel Time Reduction

Northbound/Westbound

I-275 to Red Bank Rd - Route 1	AM	PM
	Peak	Peak
and Red Bank Rd	Period (min)	Period (min)
No-Build Total Travel Time ¹	23.0	22.0
Time Saved at Intersections from Improvements ²	4.0	2.0
Build Total Travel Time	19.0	20.0
Percent Reduction in Travel Time	17%	9%

I-275 to Red Bank Rd - Route 2	AM	PM
via SR 32, SR 125, Wooster Rd, and Red Bank Rd	Peak Period (min)	Peak Period (min)
No-Build Total Travel Time ¹	24.0	20.0
Time Saved at Intersections from Improvements ²	6.0	1.0
Build Total Travel Time	18.0	19.0
Percent Reduction in Travel Time	25%	5%

Southbound/Eastbound

Red Bank Rd to I-275 - Route 1	AM Deek	PM Deak
via Red Bank Rd, US 50, Newtown Zig-Zag, and SR 32	Peak Period (min)	Period (min)
No-Build Total Travel Time ¹	22.0	24.0
Time Saved at Intersections from Improvements ²	1.0	5.0
Build Total Travel Time	21.0	19.0
Percent Reduction in Travel Time	5%	21%

Red Bank Rd to I-275 - Route 2	AM Peak	PM Peak
via Red Bank Rd, Wooster Rd, SR 125, and SR 32	Period (min)	Period (min)
No-Build Total Travel Time ¹	22.0	25.0
Time Saved at Intersections from Improvements ²	0.0	2.0
Build Total Travel Time	22.0	23.0
Percent Reduction in Travel Time	0%	8%

1. Data from StreetLight. Represents average weekdays (Tu-Th) from 2016 and 2017. AM travel time period is 7 AM - 9 AM and PM travel time period is 4 PM - 6 PM.

2. Reduction in control delay for intersection movements required to traverse corridor.

Attachment

AM and PM Peak-Hour Delay per Movement

				HCS Results - No Build		HCS Results - Build	
ldentifier	Intersection	Build Alternative	Movement	AM 2042 Delay (sec)	PM 2042 Delay (sec)	AM 2042 Delay (sec)	PM 2042 Delay (sec)
I-2	SR 32 & Beechwood Rd	Optimize and Coordinate with Adjacent Intersections	EBT	14.6	20.1	13.4	21.0
I-3	SR 32 & 8-Mile Rd	Construct a Signalized Green Tee Intersection	EBT	0.0	0.0	17.2	25.6
1-4	SR 32 & Little Dry Run	Construct a Signalized Green Tee Intersection	EBT	4.3	86.3	11.1	52.1
I-5	SR 32 & Round Bottom Rd	Construct Dual SBL and 2nd EBT	SBL	34.2	128.2	38.1	31.2
I-8	Valley Ave & Round Bottom Rd	Construct a Roundabout	EBR	91.2	46.9	5.6	13.9
I-10	Valley Ave & Church Street	Install a Five Section Head for a WBR Overlap Phase	SBL	72.4	62.3	57.8	63.5
I-11	US 50 & Newtown Rd	Construct a Roundabout	EBR	4.8	30.7	7.3	33.9
I-12	US 50 & Walton Creek Rd	Add SBL pm+pt phase and lengthen SBL turn lane	EBT	21.1	65.0	21.1	51.2
I-16	US 50 & Meadowlark Ln	Construct a Roundabout	EBT	11.3	62.2	13.1	13.9
I-25	Red Bank Road & Colbank Rd	Construct 2nd NBT and dual WBR, signalize WB US 50 ramp	SBL	46.3	121.7	54.6	40.9
	TOTAL AVERAGE INTERSECTION DELAY (SEC)			300.2	623.4	239.3	347.2
	TOTAL AVERAGE INTERSECTION DELAY SAVED (MIN)					1.0	5.0
	PE	RCENT REDUCTION IN AVERAGE INTERSECTION DELAY				20%	44%

Route 1 - Southbound/Eastbound from Red Bank Road to I-275

				HCS Results - No Build		HCS Results - Build	
ldentifier	Intersection	Build Alternative	Movement	AM 2042 Delay (sec)	PM 2042 Delay (sec)	AM 2042 Delay (sec)	PM 2042 Delay (sec)
I-2	SR 32 & Beechwood Rd	Optimize and Coordinate with Adjacent Intersections	WBT	23.9	28.0	16.8	23.2
I-3	SR 32 & 8-Mile Rd	Construct a Signalized Green Tee Intersection	WBT	0.0	0.0	0.0	0.0
1-4	SR 32 & Little Dry Run	Construct a Signalized Green Tee Intersection	WBT	63.0	2.7	0.0	0.0
I-5	SR 32 & Round Bottom Rd	Construct Dual SBL and 2nd EBT	WBR	25.5	16.3	5.1	8.0
I-8	Valley Ave & Round Bottom Rd	Construct a Roundabout	NBL	61.8	60.2	21.5	14.5
I-10	Valley Ave & Church Street	Install a Five Section Head for a WBR Overlap Phase	WBR	53.3	55.6	38.9	15.0
I-11	US 50 & Newtown Rd	Construct a Roundabout	NBL	118.2	41.9	12.0	13.8
I-12	US 50 & Walton Creek Rd	Add SBL pm+pt phase and lengthen SBL turn lane	WBT	34.0	26.0	34.0	26.9
I-16	US 50 & Meadowlark Ln	Construct a Roundabout	WBT	13.0	13.6	15.4	15.2
I-25	Red Bank Road & Colbank Rd	Construct 2nd NBT and dual WBR, signalize WB US 50 ramp	WBR	18.7	9.6	14.0	9.2
TOTAL AVERAGE INTERSECTION DELAY (SEC)			411.4	253.9	157.7	125.8	
		TOTAL AVERAGE INTERSECTION DELAY SAVED (MIN)				4.2	2.0
	PE	RCENT REDUCTION IN AVERAGE INTERSECTION DELAY				62%	50%

Route 1 - Northbound/Westbound from I-275 to Red Bank Road

				HCS Results - No Build		HCS Results - Build	
Identifier	Intersection	Build Alternative	Movement	AM 2042 Delay (sec)	PM 2042 Delay (sec)	AM 2042 Delay (sec)	PM 2042 Delay (sec)
I-2	SR 32 & Beechwood Rd	Optimize and Coordinate with Adjacent Intersections	EBT	14.6	20.1	13.4	21.0
I-3	SR 32 & 8-Mile Rd	Construct a Signalized Green Tee Intersection	EBT	0.0	0.0	17.2	25.6
I-4	SR 32 & Little Dry Run	Construct a Signalized Green Tee Intersection	EBT	4.3	86.3	11.1	52.1
I-5	SR 32 & Round Bottom Rd	Construct Dual SBL and 2nd EBT	EBT	17.1	140.9	13.5	32.8
I-6	SR 32 & Church St	Construct 2nd WBT	EBT	21.0	76.2	31.4	67.5
I-7	SR 32 & Clough Pike	Construct a Signalized Green Tee Intersection	NBT	27.9	31.9	26.4	28
I-20	Red Bank Road & Wooster Rd	Construct a Roundabout	EBR	3.2	6.7	6.7	26.2
I-25	Red Bank Road & Colbank Rd	Construct 2nd NBT and dual WBR, signalize WB US 50 ramp	SBT	11.5	7.9	7.5	6.0
		TOTAL AVERAGE INTERSECTION DELAY (SEC)		99.6	370.0	127.2	259.2
		TOTAL AVERAGE INTERSECTION DELAY SAVED (MIN)				-0.4	2.0
	PE	RCENT REDUCTION IN AVERAGE INTERSECTION DELAY				-28%	30%

Route 2 - Southbound/Eastbound from Red Bank Road to I-275

ldentifier	Intersection	Build Alternative	Movement	HCS Results - No Build		HCS Results - Build	
				AM 2042 Delay (sec)	PM 2042 Delay (sec)	AM 2042 Delay (sec)	PM 2042 Delay (sec)
I-2	SR 32 & Beechwood Rd	Optimize and Coordinate with Adjacent Intersections	WBT	23.9	28.0	16.8	23.2
I-3	SR 32 & 8-Mile Rd	Construct a Signalized Green Tee Intersection	WBT	0.0	0.0	0.0	0.0
-4	SR 32 & Little Dry Run	Construct a Signalized Green Tee Intersection	WBT	63.0	2.7	0.0	0.0
I-5	SR 32 & Round Bottom Rd	Construct Dual SBL and 2nd EBT	WBT	34.6	27.5	36.5	32.7
I-6	SR 32 & Church St	Construct 2nd WBT	WBT	134.4	27.9	39.7	20.8
-7	SR 32 & Clough Pike	Construct a Signalized Green Tee Intersection	SBT	69.0	17.4	0.0	0.0
I-20	Red Bank Road & Wooster Rd	Construct a Roundabout	NBL	30.8	24.5	31.4	10.3
I-25	Red Bank Road & Colbank Rd	Construct 2nd NBT and dual WBR, signalize WB US 50 ramp	NBT	125.9	26.6	18.6	29.8
TOTAL AVERAGE INTERSECTION DELAY (SEC)				481.6	154.6	143.0	116.8
TOTAL AVERAGE INTERSECTION DELAY SAVED (MIN)						5.6	1.0
PERCENT REDUCTION IN AVERAGE INTERSECTION DELAY						70%	24%

Route 2 - Northbound/Westbound from I-275 to Red Bank Road